Construction Traffic Management Plan – Eastern Creek Precast Facility

SMWSTCTP-AFJ-ECR-TF-PLN-000001 Revision 02

Sydney Metro West – Central Tunnelling Package

DOCUMENT APPROVAL

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02	07/07/2023	All	[redacted]	For resubmission to Sydney Metro

CONTENTS

1. INTRODUCTION

1.1 CTMP CHANGE SUMMARY

Throughout the duration of the project, updates to CTMPs may be required. These updates may result in changes to the CTMP to cater for legislation changes, scope of work changes, or for other reasons to maintain the safe and efficient operation of the project. Changes associated with this revision are as detailed below, within Table 1.

TABLE 1: CTMP CHANGE SUMMARY

CTMP Revision	Date of Revision	Summary of changes
02	07/07/2023	Adjustments to this CTMP are intended to address changes noted below, while maintaining the safety of public and workers. 1. Update of site plan for reference purposes. 2. Minor updates to wording throughout, to better represent the current stage of works. 3. Minor updates to the traffic staging plan, including: o Signage changes to remove “AFJV vehicles only signage” and install ETP & CTP specific signage to accommodate upcoming portion handover. o To better represent the current driveway arrangement. 4. Update to AFJV site contacts Overall, the updates to this CTMP, do not affect or change the existing public traffic and pedestrian conditions.

1.2 PROJECT BACKGROUND

The Sydney Metro West Central Tunnelling Package involves the construction of 11.5km of twin tunnel metro line from The Bays Precinct to Sydney Olympic Park, which will be connected with the Sydney Metro City & Southwest and double the rail capacity to/from Sydney CBD.

FIGURE 1: OVERVIEW OF SYDNEY METRO WEST

The Acciona Ferrovial Joint Venture (AFJV) will deliver the Project in partnership with NSW Government and Sydney Metro (SM).

2. PURPOSE AND SCOPE

2.1 PURPOSE

AFJV aims to maintain a safe environment for all road users by effectively maintaining traffic flows during the works and managing construction vehicles to/from the work sites.

This Construction Traffic Management Plan (CTMP) has been prepared to meet the following requirements for the Eastern Creek Precast Facility, located at the intersection of Lenore Drive and Archbold Road, as part of the Sydney Metro West – Central Tunnelling Package (the Project):

- The Project's General Specifications Section 2.11 and Section 5.1.11.1
- EIS Technical Paper 1 – Traffic and Transport Mitigation Measures
- EIS Construction Traffic Management Plan Framework
- Minister for Planning and Public Spaces' Concept and Stage 1 Conditions of Approval (COA) for the State Significant Infrastructure (SSI 10038).

The scope of this CTMP is to detail the long-term traffic changes associated with construction of the Eastern Creek Precast Facility to manufacture concrete segments required to line the twin tunnels for Sydney Metro West.

This CTMP and the documents referenced in the CTMP have been prepared in accordance with the relevant standards and guidelines.

AFJV will provide safety measures to a wide range of stakeholders potentially affected by the works including but not limited to motorists, pedestrians, cyclists, public transport users, local residents and property owners, business owners and workers/ staff engaged on the Project.

2.2 OBJECTIVES

The primary objectives and principles of this CTMP are:

- Keeping traffic delays to a minimum
- Minimising disruption to businesses
- Minimising disturbance to the environment
- Ensuring traffic impacts are within the scope permitted by Transport for NSW (TfNSW), Sydney Metro (SM) and Blacktown City Council
- Ensure the safety of employees, contractors and road users.
- Meet the requirements of the Project brief, project specifications, COA and TfNSW Traffic Control at Work Sites (TCaWS) Manual 2020.

3. EXISTING TRAFFIC CONDITIONS

3.1 EXISTING ROAD NETWORK

3.1.1 WALLGROVE ROAD

Wallgrove Road is a classified state road aligned parallel to the Westlink M7 Motorway in the north-south direction. Wallgrove Road provides a key route between Cecil Park and Minchinbury. Wallgrove Road is generally configured with two travel lanes in both directions separated by a raised median. Parking is prohibited along both sides of the road. Wallgrove Road has a posted speed restriction of 70km/h.

3.1.2 OLD WALLGROVE ROAD

Old Wallgrove Road is a state classified road that forms part of the key link route between Erskine Park and Eastern Creek. Old Wallgrove Road also caters to various industrial and commercial warehouses along both sides of the road. Old Wallgrove Road has two travel lanes in the eastbound and westbound directions between Lenore Drive and Southridge Street. An additional travel lane is included in both eastbound and westbound carriageways between Southridge Street and Wallgrove Road. Parking is prohibited along both sides of the road and has a posted speed restriction of 80km/h.

3.1.3 LENORE DRIVE

Lenore Drive is a state classified road connecting Erskine Park Road to the west and Old Wallgrove Road to the east. Lenore Drive is configured with two travel lanes in the eastbound and westbound directions separated by a 5m wide raised median with vegetation. Parking is prohibited along both sides of the road. It is noted that the first stage of the Archbold Road Upgrade and Extension project will be undertaken on the north side of Lenore Drive adjacent to the site. Lenore Drive has a posted speed restriction of 80km/h.

3.2 EXISTING TRAFFIC VOLUMES

The Review of Environmental Factors for Sydney Metro West Eastern Creek Precast Facilities documents the existing traffic volumes around the Eastern Creek Precast Facility, as presented in Table 2.

TABLE 2: EXISTING TRAFFIC VOLUME (2019)

Road	Direction	AM Peak Traffic Volume (vph)	PM Peak Traffic Volume (vph)
Wallgrove Road	Northbound	1,070	1,380
	Southbound	1,410	1,480
Old Wallgrove Road	Eastbound	750	880
	Westbound	1,090	690
Lenore Drive	Eastbound	750	880
	Westbound	1,090	690

Reference: Sydney Metro West Eastern Creek Precast Facilities REF

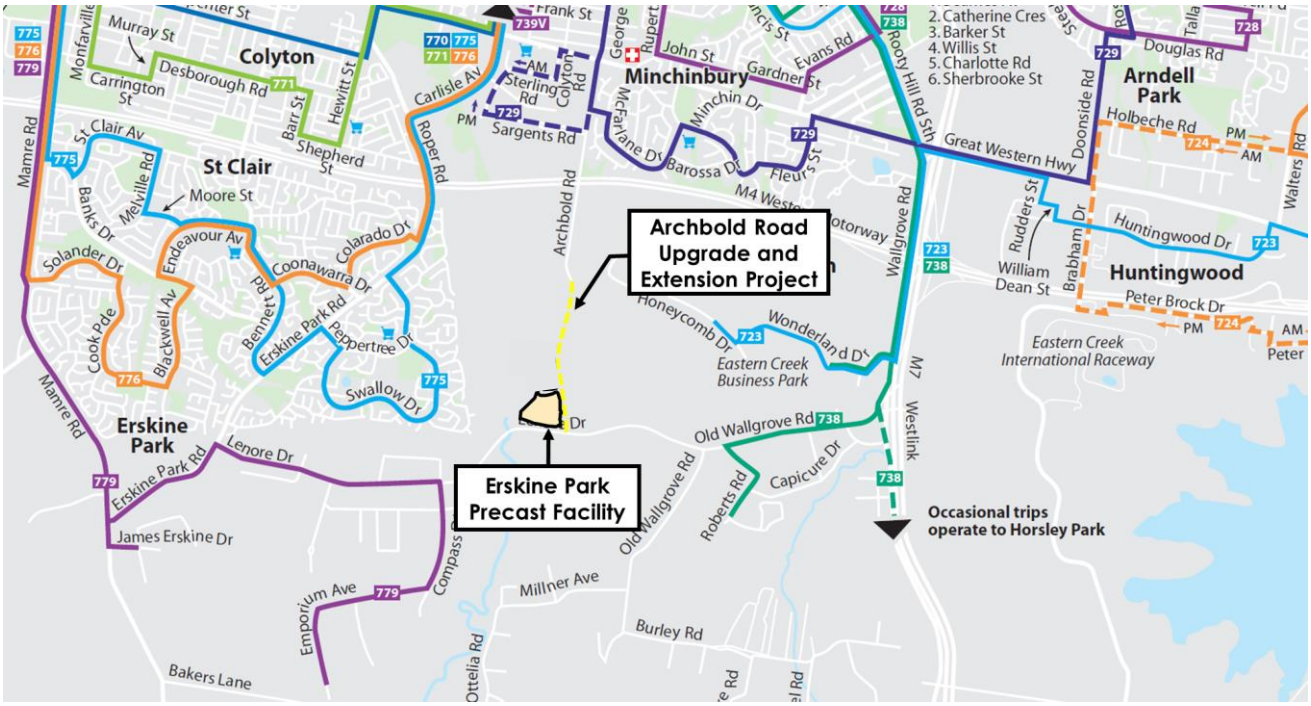
3.3 PUBLIC TRANSPORT NETWORK

The existing bus service network within the vicinity of Eastern Creek Precast Facility is shown in Figure 2. The nearest bus stop (Stop ID: 2766150) is located on the north side of Lenore Drive, approximately

70m east of the future intersection with Archbold Road. This bus stop currently serves Bus Route 835 connecting Western Sydney University (WSU) Penrith Campus and Prairiewood.

In addition, Bus Routes 779 and 738 travel along Lenore Drive or Old Wallgrove Road, with the closest bus stops located some 140 to 160m from the Eastern Creek Precast Facility.

FIGURE 2: PUBLIC TRANSPORT NETWORK SURROUNDING EASTERN CREEK PRECAST FACILITY

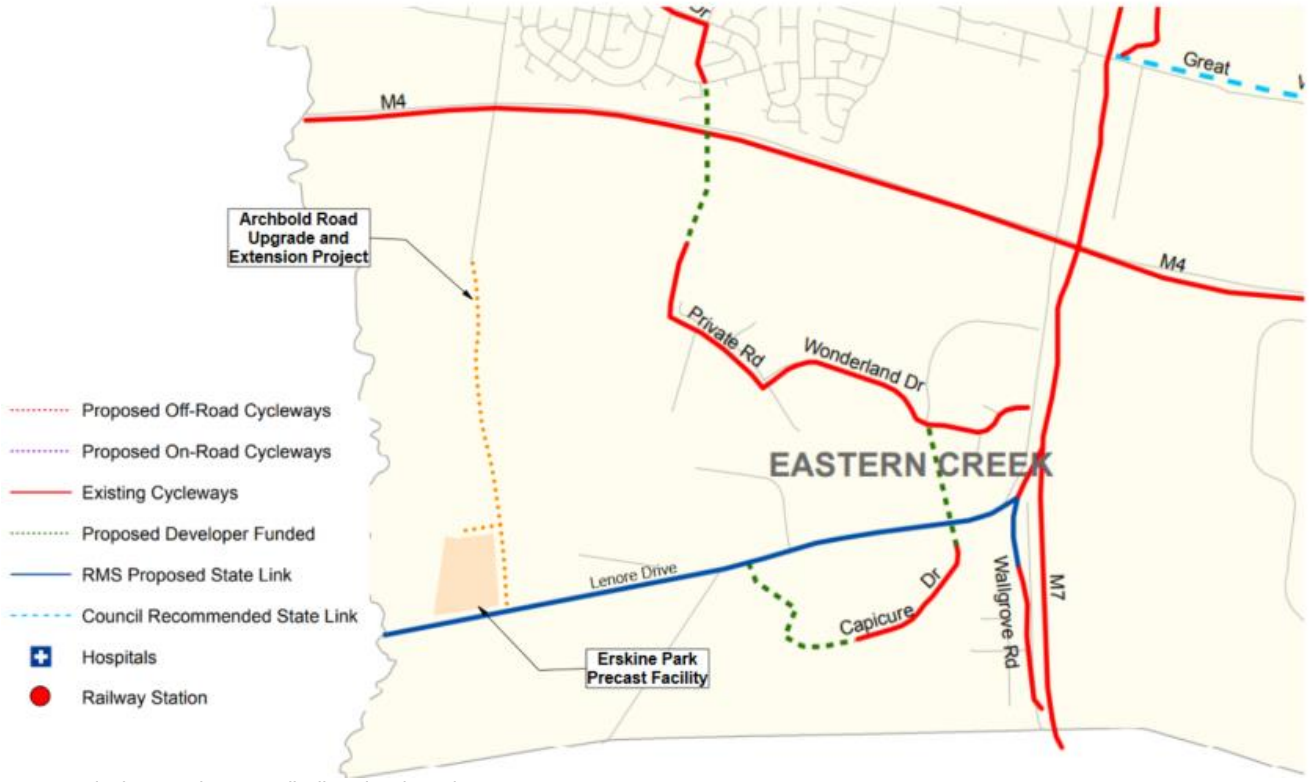


3.4 PEDESTRIAN AND CYCLIST NETWORK

A shared path with a width of 2.8m is provided along the north side of Lenore Drive and Old Wallgrove Road. This shared path provides connectivity to the wider regional walking and cycling network as shown in Figure 3.

As part of the Archbold Road Upgrade and Extension project, additional pedestrian and cycling infrastructure will be constructed to enhance pedestrian and cyclist accessibility and connectivity in the surrounding area. New pedestrian and cycling facilities will include signalised pedestrian crossings at the signalised intersection of Archbold Road and Lenore Drive and a shared path along the west side of Archbold Road between the Great Western Highway and Old Wallgrove Road.

FIGURE 3: SURROUNDING CYCLING NETWORK



Source: Blacktown City Council Bike Plan (2016)

4. ARCHBOLD ROAD UPGRADE AND EXTENSION PROJECT

TfNSW is working on the upgrade and extension of Archbold Road to provide key north-south access for Ropes Creek and Eastern Creek precincts that form part of the Western Sydney Employment Area.

The following key features are included as part of the Archbold Road Upgrade and Extension project as shown in Figure 4:

- Intersection upgrade at the Great Western Highway and Archbold Road, Minchinbury.
- Existing Archbold Road, south of the Great Western Highway, upgraded from two lanes to a four-lane divided road including a new bridge over the M4 Motorway with east facing ramps.
- Archbold Road extended south through Lenore Drive to meet the Old Wallgrove Road southern extension near the WaterNSW pipelines.
- New signalised intersections along Archbold Road at Robinson Street, Sargents Road, Lenore Drive and Old Wallgrove Road.
- New drainage structures along creek crossings.
- New intersections for future access to employment lands.
- Bus priority measures at key intersections.
- New shared path for pedestrians and cyclists along the west side of Archbold Road.

Construction of the first stage of Archbold Road Upgrade and Extension project is currently underway with the following works to enable access to the Eastern Creek Precast Facility:

- Construction of a new signalised intersection at Lenore Drive and Archbold Road.
- Construction of Archbold Road from the north side of Lenore Drive.
- Construction of Western Access Road adjoined at the west side of Archbold Road.

The first stage works was complete to enable access to the Eastern Creek Precast Facility via the signalised Lenore Drive and Archbold Road intersection.

Detailed design and construction phases of the subsequent Archbold Road Upgrade and Extension works are subject to funding availability and has yet to be confirmed at this stage.

FIGURE 4: ARCHBOLD ROAD UPGRADE AND EXTENSION PROJECT

Source: TfNSW - https://roads-waterways.transport.nsw.gov.au/projects/archbold-road/index.html (last accessed 15/02/2022)

5. GENERAL CONSTRUCTION AND OPERATIONAL DETAILS

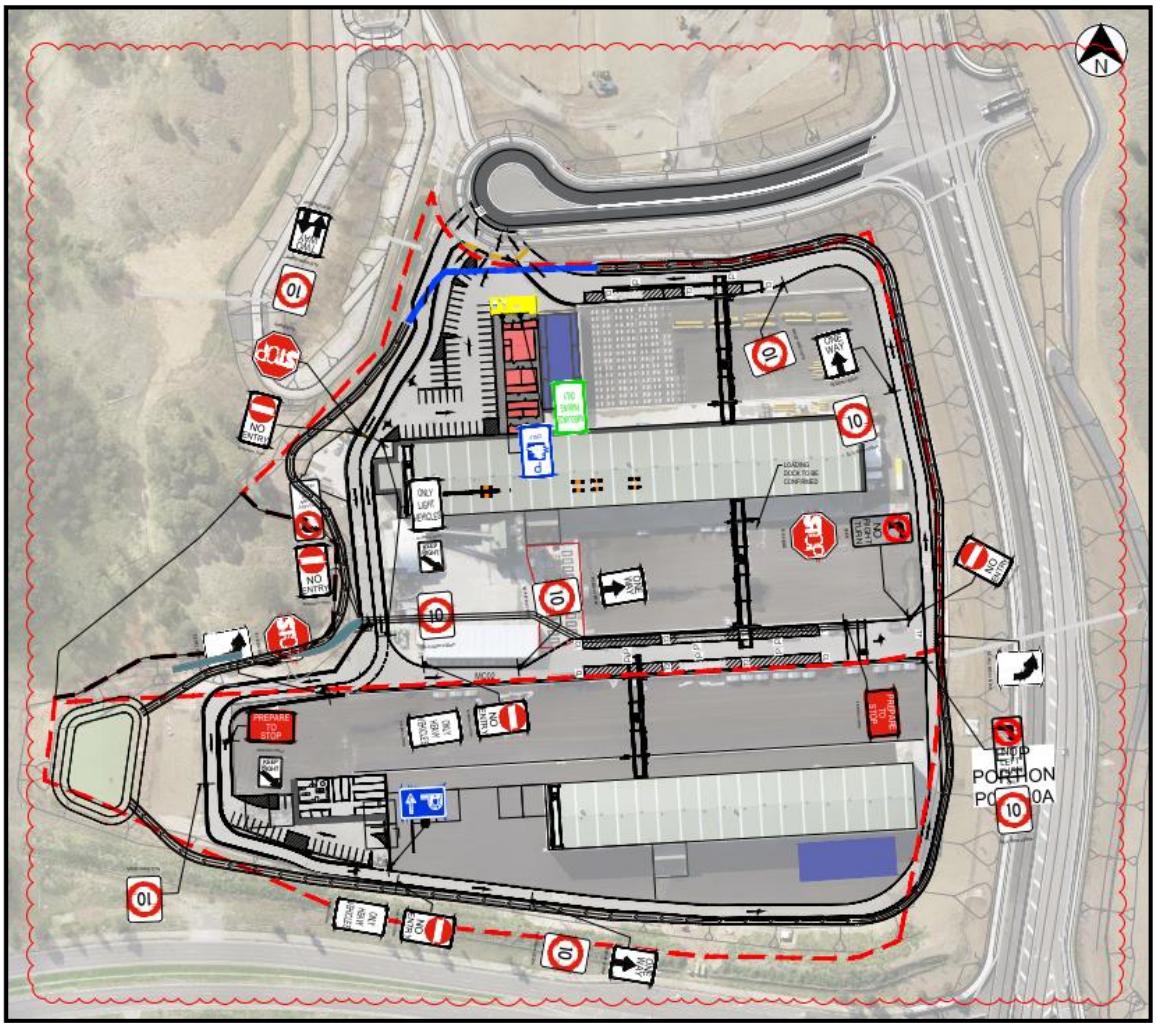
5.1 SITE LAYOUT

The Eastern Creek Precast Facility is accessed by Western Access Road which is constructed as part of Stage 1 of the Archbold Road Upgrade and Extension project.

The precast facilities involve features as shown in Figure 5:

- A precast yard including a shed for construction of precast concrete segments and storage laydown areas
- Boiler, aggregate bins and consumables
- Office facilities
- On-site parking.

FIGURE 5: SITE LAYOUT



5.2 OVERVIEW OF CONSTRUCTION AND OPERATIONAL ACTIVITIES

The following construction activities will be undertaken in order to establish the Eastern Creek Precast Facility as consistent with the Review of Environmental Factors (REF):

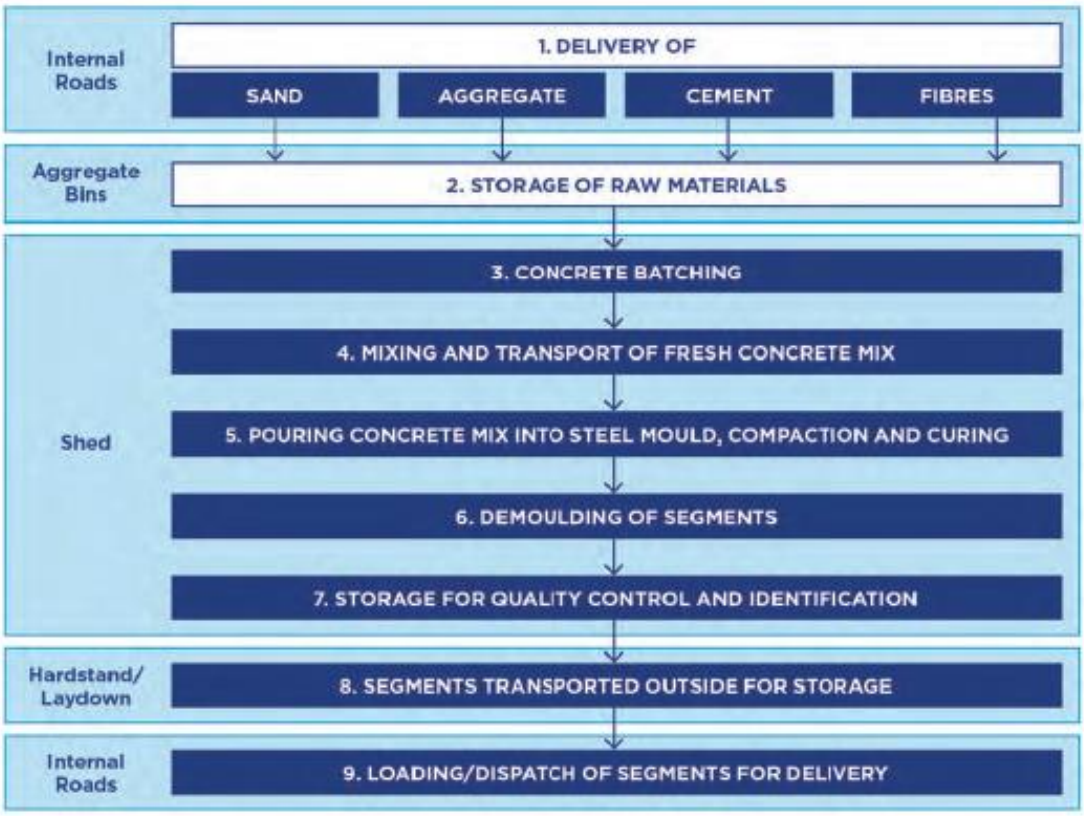
- Vegetation clearing

- Installation of erosion and sediment controls and undertaking water management works
- Remediation
- Earthworks and levelling and creation of building and storage pads
- Installation of site utility services
- Construction of internal roads, access, egress and car park
- Construction of hardstand/ lay down and storage areas
- Construction of aggregate bins and cement silos
- Construction of sheds and installation of precast production facilities and batch plant, including internal assembly of batch plant facilities and boiler
- Installation of gantry cranes
- Landscaping works.

Construction of the Eastern Creek Precast Facility took approximately 9 months to construct. With construction beginning in November 2021, the facility become operational in 2022.

Operational activities and process are outlined in Figure 6. Raw materials will be delivered to the site for production, and subsequently the precast tunnel lining segments will be transported to the Sydney Metro West station construction sites at The Bays, Five Dock, Burwood, North Strathfield, Sydney Olympic Park and Sydney CBD.

FIGURE 6: EASTERN CREEK PRECAST FACILITY OPERATIONAL PROCESS



Reference: Sydney Metro West Eastern Creek Precast REF Volume 1

5.3 CONSTRUCTION AND OPERATIONAL WORKING HOURS

The proposed construction activities to establish the Eastern Creek Precast Facility were carried out on the following working days and hours as consistent with the REF:

- Monday to Friday: 7:00am – 6:00pm
- Saturday: 8:00am – 1:00pm
- No works on Sundays or public holidays

Following completion of construction, the precast facility operates 24 hours a day, seven days a week throughout the majority lifespan of the Sydney Metro West project for four to five years, subject to the delivery strategy and construction program for the project.

Indicative shift times during operations are as follows as consistent with the REF:

- Day shift from 7:00am – 5:00pm
- Night shift from 7:00pm – 5:00am.

There will generally be a two-hour window between shifts for handover, and one day per week scheduled for maintenance.

5.4 CONSTRUCTION AND OPERATIONAL WORKFORCE AND PARKING

The proposed workforce during construction and operations are consistent with the REF:

- Peak construction workforce is anticipated to be up to a total of 60 personnel for the facility.
- Operational workforce will be around 60 personnel, for the facility at any one time.
- On-site parking for approximately 60 light vehicles will be provided. This provision is equivalent to one parking space for each personnel.

5.5 HAULAGE ROUTES

Access to the Eastern Creek Precast Facility is via the signalised Archbold Road and Lenore Drive intersection, the first stage of the Archbold Road extension for approximately 700m, and Western Access Road located between the north and south sides of the precast facility.

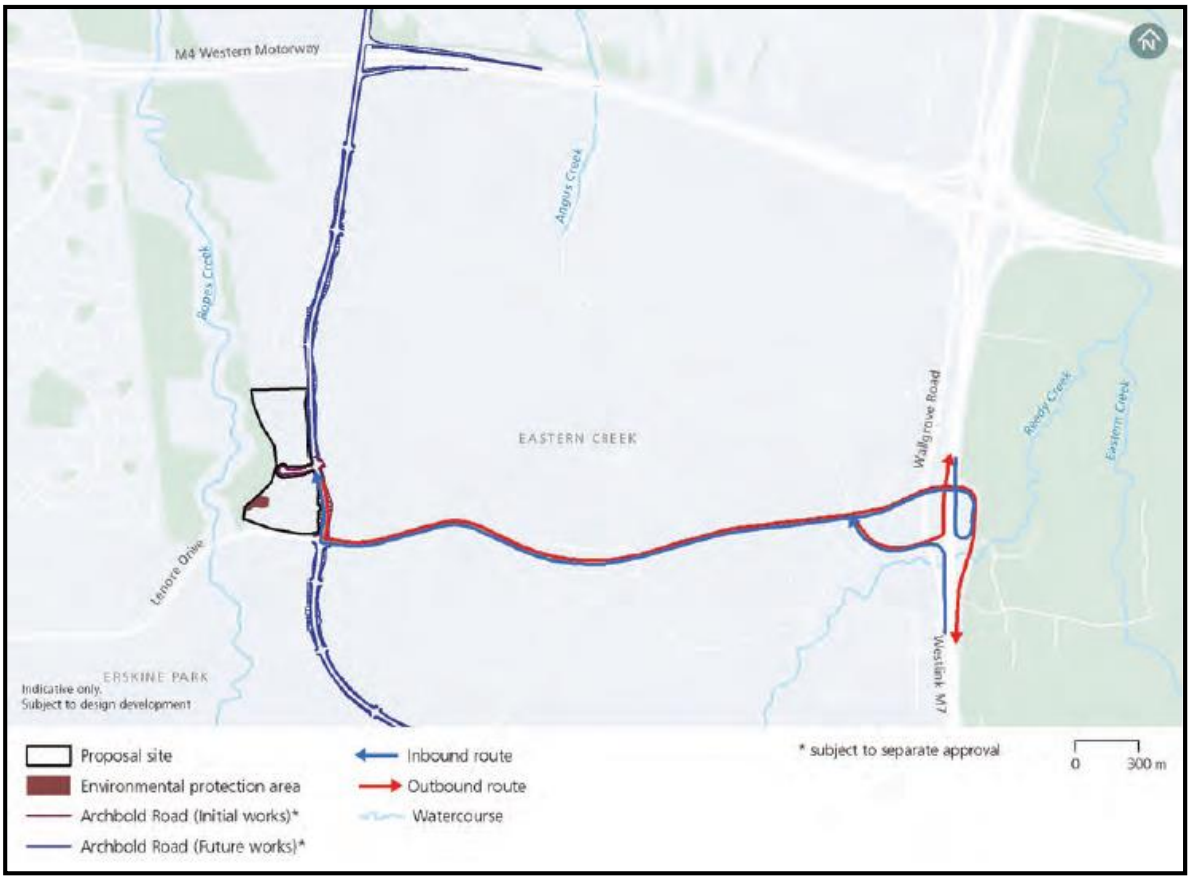
The designated haulage routes to be used by large heavy vehicles are detailed below and shown in Figure 7. These haulage routes are consistent with those as shown in the REF.

- Inbound Routes
  - **Heavy Vehicle Routes:** M7 Motorway/ Wallgrove Road, Old Wallgrove Road, Lenore Drive, Archbold Road and Western Access Road.
  - **Light Vehicle Routes:** M7 Motorway/ Wallgrove Road, Old Wallgrove Road, Lenore Drive, Archbold Road and Western Access Road.
- Outbound Routes
  - **Heavy Vehicle Route:** Western Access Road, Archbold Road, Lenore Drive, Old Wallgrove Road, M7 Motorway/ Wallgrove Road.
  - **Light Vehicle Route:** Western Access Road, Archbold Road, Lenore Drive, Old Wallgrove Road, M7 Motorway/ Wallgrove Road.

No haulage routes are anticipated to travel to/from west of the precast facility.

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

FIGURE 7: CONSTRUCTION VEHICLE ACCESS ROUTES TO SITE



Reference: Sydney Metro West Eastern Creek Precast REF Volume 1

6. CONSTRUCTION TRAFFIC AND TRANSPORT MANAGEMENT

6.1 CONSTRUCTION TRAFFIC VOLUMES

The proposed construction activities at the Eastern Creek Precast Facility site generated the following traffic volumes during the peak construction period as consistent with the REF:

- 60 light vehicle movements in the hour when AFJV workers and staff arriving to the site prior to the start of shift (6:00am to 7:00am) and leaving after the end of shift (6pm to 7pm). These equate to a total of 120 light vehicle 2-way movements per day.
- 22 light vehicle 2-way movements per hour throughout the standard construction work hours (7:00am to 6:00pm) for delivery of construction material. These equate to a total of 242 light vehicle 2-way movements per day.
- 20 heavy vehicle 2-way movements per hour during the standard construction work hours (7:00am to 6:00pm) for delivery of construction material. These equate to a total of 220 heavy vehicle 2-way movements per day.

The proposed light and heavy vehicle traffic volumes during peak construction activities were consistent with the REF traffic volumes as shown in Table 3.

The REF estimated a construction workforce of up to 60 construction staff and contractors at the site at any one time. As such, AFJV construction workforce is consistent with the REF estimate.

TABLE 3: DAILY AND PEAK HOUR CONSTRUCTION TRAFFIC GENERATION DURING PEAK ACTIVITIES (TWO-WAY)

	Peak Daily Traffic Volume		AM Peak Hour Traffic Volume (6:00am to 7:00am)		PM Peak Hour Traffic Volume (6:00pm to 7:00pm)	
Vehicle Type	**REF**	**AFJV**	**REF**	**AFJV**	**REF**	**AFJV**
Light vehicle	362	362	60	60	60	60
Heavy vehicle	220	220	0	0	0	0
Total	**582**	**582**	**60**	**60**	**60**	**60**

Note: AM and PM peak hours are consistent with REF; REF traffic volumes are shown as two-way movements.

6.2 OPERATIONAL TRAFFIC VOLUMES

Following completion of construction, the Eastern Creek Precast Facility commenced operations to produce and supply precast concrete segments for the Sydney Metro West underground rail tunnels between Sydney Olympic Park and The Bays Precinct.

It is anticipated that the Eastern Creek Precast Facility operational activities will generate the following traffic volumes:

- 60 light vehicles arriving to the site prior to the start of each shift and 60 light vehicles leaving the site after the end of each shift. These equate to:
- Delivery of material to the site by light vehicles:
    - 16 light vehicle two-way movements per hour during the day (7:00am to 6:00pm)
    - 10 light vehicle two-way movements per hour during the night (6:00pm to 7:00am).
- Delivery of material to the site by heavy vehicles:
    - 24 heavy vehicle two-way movements per hour during the day (7:00am to 6:00pm)
    - 12 heavy vehicle two-way movements per hour during the night (6:00pm to 7:00am)

From the above, the total light vehicle traffic generated will be in the order of 546 light vehicle two-way movements per day and 420 heavy vehicle two-way movements per day.

The proposed light and heavy vehicle traffic volumes during peak operational activities are consistent with the REF traffic volumes as shown in Table 4.

TABLE 4: DAILY AND PEAK HOUR OPERATIONAL TRAFFIC GENERATION (TWO-WAY)

	Peak Daily Traffic Volume		AM Peak Hour Traffic Volume (6:00am-7:00am)		PM Peak Hour Traffic Volume (5:00pm-6:00pm)	
Vehicle Type	**REF**	**AFJV**	**REF**	**AFJV**	**REF**	**AFJV**
Light vehicle	546	546	70	70	76	76
Heavy vehicle	420	420	12	12	24	24
Total	**966**	**966**	**82**	**82**	**100**	**100**

Note: AM and PM peak hours are consistent with REF; REF traffic volumes are shown as two-way movements.

6.3 PUBLIC TRANSPORT

Existing bus route services on Lenore Drive and Old Wallgrove Road will not be adversely impacted by the proposed construction and operation activities. The REF indicates that local bus services may experience minimal delays in travel time due to the additional vehicles associated with the Project travelling on the road network.

6.4 PEDESTRIAN AND CYCLIST

The existing shared path along the north side of Lenore Drive and Old Wallgrove Road will be maintained at all times during construction and operation of the precast facility.

Pedestrian and cyclist movements on the existing shared path on the north side of Lenore Drive are currently low and are expected to continue throughout the time period of the Project.

Look for truck decals will be installed on both sides of the site access and egress driveways, as indicated on the traffic staging plans provided within Appendix A.

6.5 ON-STREET PARKING

All workforce parking will be accommodated on-site and not on surrounding roads. Therefore, there will be no impact on parking during construction and operation of the precast facility.

Furthermore, construction and operational activities will not impact on any on-street parking as there is no provision of on-street parking spaces along both sides of Lenore Drive.

It is anticipated that on-street parking will not be provided on Archbold Road extension and Western Access Road when it is open for AFJV vehicles.

6.6 WORKFORCE PARKING

Access to the on-site parking areas for the facility is via Western Access Road.

AFJV will provide a total of 60 parking spaces located within the facility to accommodate the anticipated workforce of 60 in each shift. The parking provision is equivalent to one parking space for each personnel and is therefore sufficient to accommodate parking for all personnel. There is a two-hour window between the day and night shifts to avoid any overlapping parking demands.

Notwithstanding the above, AFJV workers will be encouraged to carpool to/from the site to minimise the number of light vehicle movements.

6.7 ACCESS TO LOCAL PROPERTIES, BUSINESSES AND UTILITIES

Access to local properties and businesses will not be impacted by the proposed construction activities. Access to properties for emergency vehicles would be provided at all times.

Access to all utilities will be maintained during construction unless agreed with the relevant utility owner, landowner or occupier unless agreed with the utility owner.

AFJV will coordinate with TfNSW to effectively manage and maintain site access arrangements for AFJV vehicles during the concurrent construction activities of the Eastern Creek Precast Facility and the Archbold Road Upgrade and Extension project.

6.8 INCIDENT MANAGEMENT AND RESPONSE

The types of emergencies or unplanned incidents that may occur include, but are not limited to motor vehicle crashes, environmental spills, terrorist attacks, bomb threats, construction type incidents, structural catastrophic failures, inclement weather conditions, flooding and anti-social behaviour.

AFJV will adopt the operating procedures for managing emergencies and unplanned incidents that are addressed in the Project WHS Management Plan and the Incident Management Plan.

The Project team will immediately notify TfNSW Transport Coordination of the incident and record the knowledge of the facts. The Traffic Manager, or delegate, is then required to forward a report with the information to TfNSW Transport Coordination Representatives within two days of the occurrence of the incident.

In addition, the project team will use an appropriate standard plan from the TCaWS Manual, adjusting it as needed to suit the site conditions.

In order to minimise the impact of such events on road user delay, AFJV will also:

- Clearly identify the relative responsibilities and roles of government agencies and the project team when responding to incidents.
- Establish and maintain communication protocols for both internal and external communications with Public Liaison Manager involvement.
- Provide close support to emergency services, where appropriate.
- Reschedule planned works that will interfere with the incident or create additional delays to those road users already affected by the incident.
- As part of the Community Communications Strategy, all enquiries, suggestions, comments, etc. should be directed to the Project 1800 hotline number. Staff will ensure all information is forwarded to the respective people.

6.9 SPECIAL EVENTS

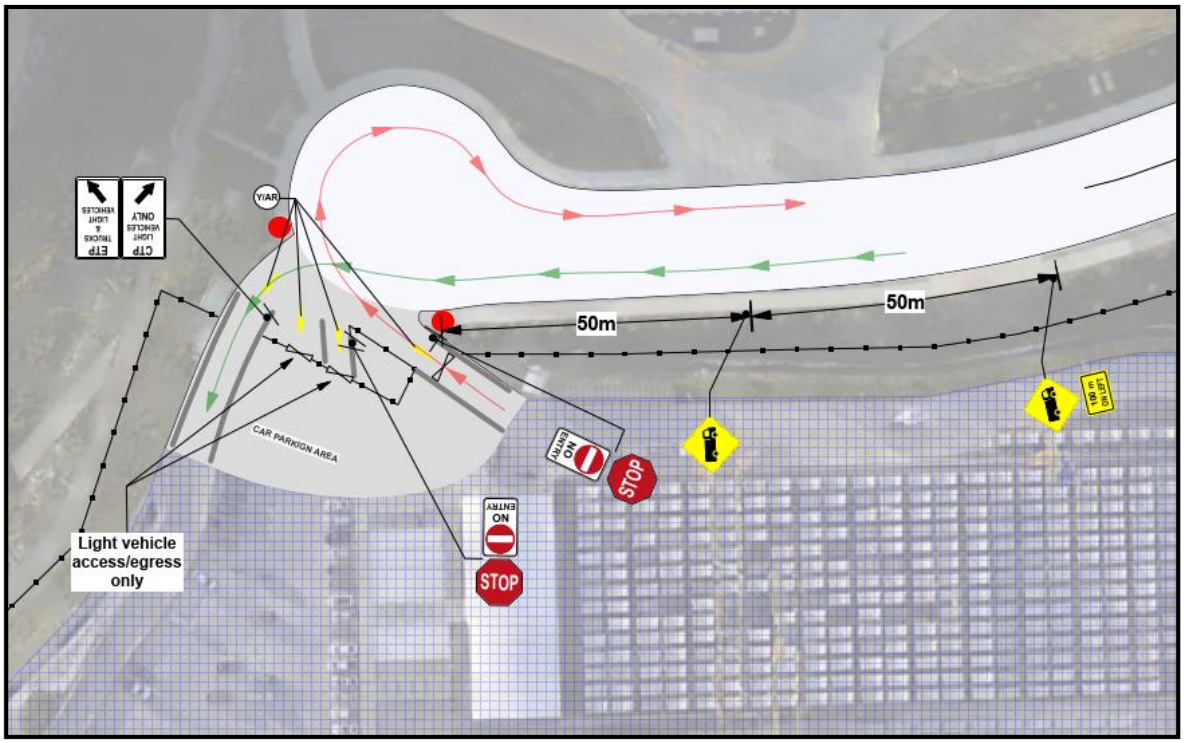
A review of Blacktown City Council and Penrith City Council websites for special events near the Eastern Creek Precast Facility shows that there are currently no scheduled special events which will be impacted by the proposed construction activities.

AFJV will continue to monitor Councils' event calendars for any upcoming events that may be impacted by the proposed construction activities. AFJV will discuss impacted special events further with Council, where necessary.

6.10 TRAFFIC STAGING PLAN

A Traffic staging plan has been prepared to detail the proposed traffic management measures for the Eastern Creek Precast Facility site with the following key features as shown in Figure 8 and provided within Appendix A

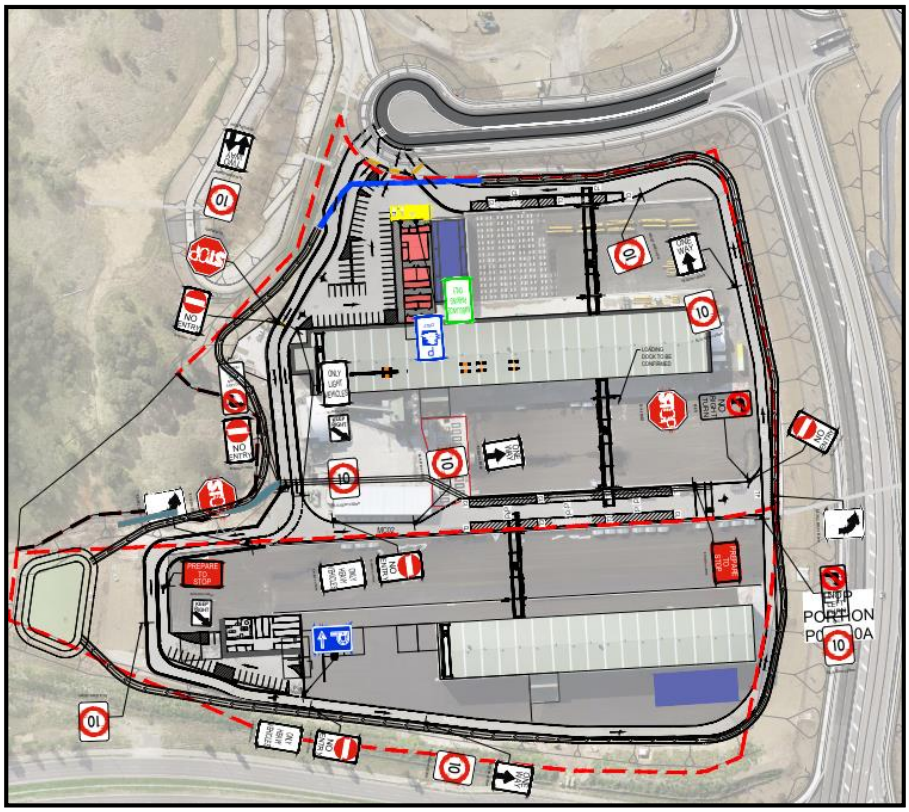
FIGURE 8: TRAFFIC STAGING PLAN



6.11 SITE PLAN

A site plan has been prepared to detail the proposed traffic management measures within the Eastern Creek Precast Facility site. Key features as shown in Figure 9 and provided within Appendix B.

FIGURE 9: SITE PLAN



6.12 INSPECTIONS

On-site inspection and monitoring of this CTMP will be undertaken regularly and in accordance with the Overarching Construction Traffic Management Plan.

All long-term traffic management arrangements will be inspected post Implementation. Any minor issues identified during the inspection will be recorded and rectified immediately. More significant issues will be recorded for rectification.

Where traffic control deficiencies are identified through inspections, this CTMP and associated TGS will be amended, as required, by the Traffic Manager.

All identified issues and status of rectification will be documented.

6.13 ROAD SAFETY AUDIT

A desktop road safety audit has been conducted on CTMP and is provided in Appendix C.

A field audit will be conducted by a suitably qualified and independent auditor with Level 3 certification and another auditor with Level 2 or higher certification. The audit will be conducted once the site is operational to assess the site constraints and access arrangements.

Where road safety deficiencies are identified through the audit, the relevant design/ implantation will be amended to address the deficiencies, where required.

6.14 WORKFORCE AND STAFF TRAINING

6.14.1 SITE INDUCTION

All AFJV workers and staff employed at Eastern Creek Precast Facility (including sub-contractors) will be required to undergo a site induction.

The induction will include information of the site access routes for site staff and construction vehicles, on-site parking location, WH&S driver protocols and emergency procedures.

All personnel employed with the Project will perform their duties in accordance with the requirements of this CTMP.

6.14.2 DRIVER TRAINING

Heavy vehicle drivers shall be made fully aware of the traffic management arrangements within and surrounding the site. All drivers will be informed of all site access gates and access requirements including specific heavy vehicle driver training to ensure the following:

- Appropriate procedures for accessing the site
- Drivers shall adhere to the nominated site access routes mentioned in Section 5.5.
- Drivers are to be cautious of other road users (pedestrians and cyclists) travelling past the site.
- Drivers shall be aware of the speed restrictions along the site access routes, and
- Queuing and truck marshalling is to be wholly contained within the site.

7. PROJECT COMPLETION AND HANDOVER

At the completion of AFJV related works, portions of the site will be handed over to Sydney Metro in stages. Any signage and other traffic management devices required for the safe and affective movement of both public and work vehicles within these portions, will remain installed and handed over to Sydney Metro as part of the portion. In the case of any signage or other traffic management devices that are deemed not required, or conflicting; will be removed or changed. Details of any changes are to be agreed with Sydney Metro outside of this CTMP.

It's noted that once a portion has been handed over to Sydney Metro, any signage or other Traffic management devices within the portion, will no longer be inspected or maintained by AFJV.

8. COMPLIANCE MANAGEMENT

8.1 ROLES AND RESPONSIBILITIES

The AFJV project team's organisational structure and key roles and responsibilities are summarised in the Overarching CTMP for the project.

8.1.1 SITE CONTACTS

Key site contacts are listed below in Table 8.

TABLE 5: AFJV SITE CONTACTS

Contact	Role	Phone
[redacted]	Project Wide Construction Manager	[redacted]
	Precast Manager	
	Traffic Manager	

8.2 TRAFFIC AND TRANSPORT LIAISON GROUP

AFJV Traffic Manager will present at the monthly Traffic and Transport Liaison Group (TTLG) meetings for the Project. The TTLG will primarily include representatives from:

- Sydney Metro Delivery Office
- Transport for NSW (TfNSW)
- Customer Journey Management (formerly known as TMC)
- Customer Journey Planning (formerly known as SCO)
- NSW Police
- Blacktown City Council
- Representative of any other authority or road user group affected by the Project.

The AFJV Traffic Manager is a member of the TTLG and will act as the authorised representative for the Project in matters related to traffic and transport. The AFJV Traffic Manager provides the following information and related updates to the TTLG:

- Construction site operations and activities
- Traffic operations, including changes in local road network
- Community concerns and comments or feedback
- Issues relating to pedestrians and cyclists or mobility impaired road users.

9. CONCLUSION

This CTMP has been prepared to document the proposed construction and operational activities of the Eastern Creek Precast Facility which are consistent with the REF in terms of the anticipated workforce, working hours, on-site parking provision, traffic volume, haulage routes and the likely traffic and transport impacts.

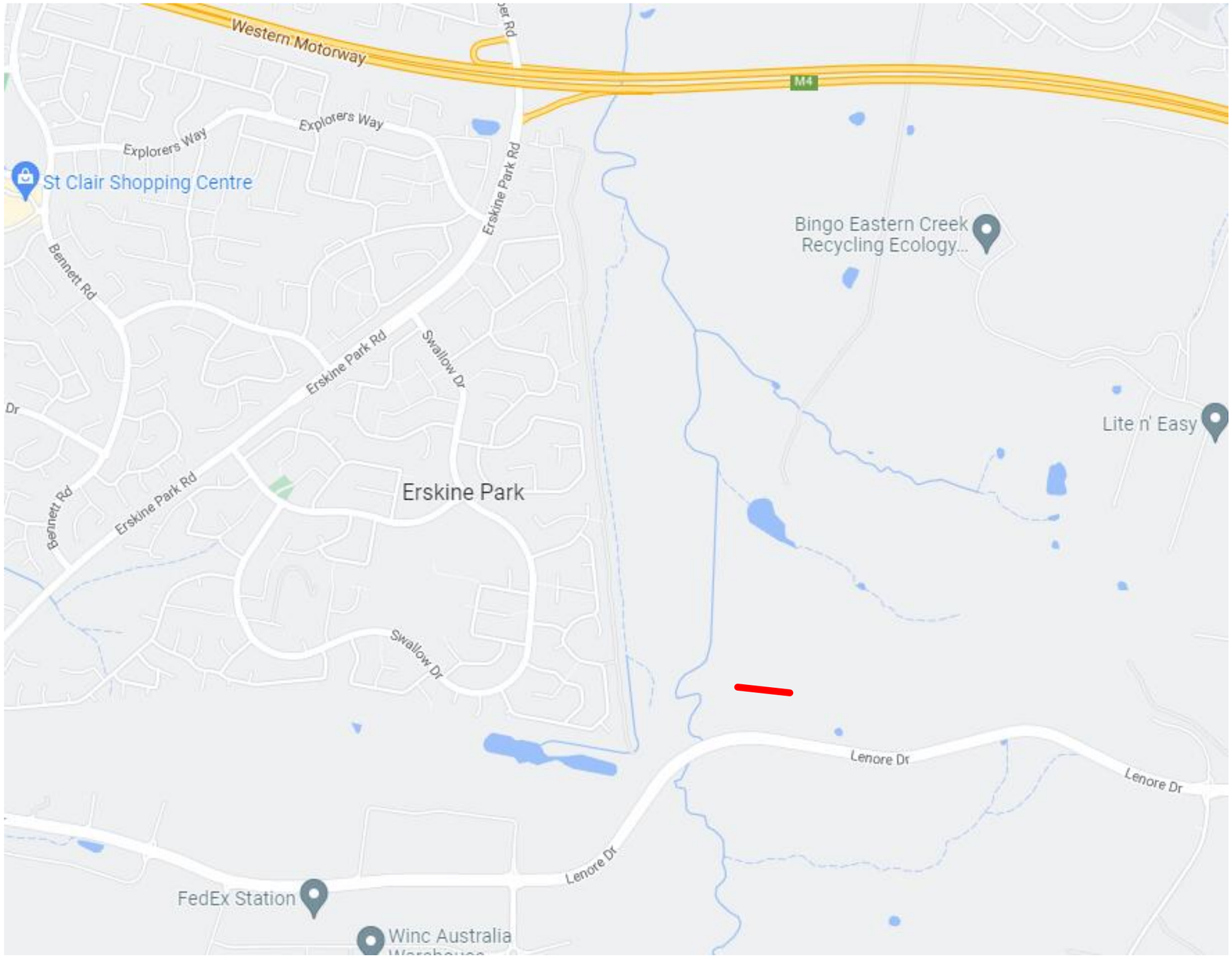
The CTMP details the management measures to mitigate the identified traffic and transport impacts that will occur during the peak construction and operational periods.

Based on the findings of the CTMP, it is concluded that:

- The construction activities at Eastern Creek Precast Facility site will generate 362 light vehicle two-way movements per day and 220 heavy vehicle two-way movements per day during the peak construction period. The daily and peak hour construction traffic generation is consistent with the REF.
- The operational activities at Eastern Creek Precast Facility will generate 564 light vehicle two-way movements per day and 420 heavy vehicle two-way movements per day. The daily and hourly operational traffic generation is consistent with the REF.
- Existing bus route services on Lenore Drive and Old Wallgrove Road will not be adversely impacted by the proposed construction and operational activities as minimal delays may be experienced with additional heavy vehicles travelling on the road network as per the REF assessment.
- Pedestrian and cyclist access on the existing shared path along the north side of Lenore Drive will be maintained at all times as per the REF. The pedestrian and cyclist movements are currently low and are expected to continue throughout the duration of the Project. Now that the TCS at the Archbold Road and Lenore Drive intersection is operational, pedestrian and cyclist impacts are not anticipated as the signalised crossing will allow safe crossing opportunities.
- Provision of 60 parking spaces will be provided on-site to accommodate a workforce of 60. The parking provision is equivalent to one parking space for each personnel and is therefore sufficient to accommodate parking for all personnel. There is a two-hour window between the day and night shifts to avoid any overlapping parking demands.
- AFJV will conduct regular inspections and monitor the traffic management measures detailed in this CTMP. Any deficiencies identified will be recorded and rectified accordingly.

APPENDIX A - TRAFFIC STAGING PLAN

LONG TERM - TRAFFIC GUIDANCE SCHEME



N

PROJECT: SYDNEY METRO WEST - CENTRAL TUNNEL PACKAGE

LEGEND

Workzone | Traffic Controller | Traffic Cones | Pedestrian Route | Sign (2 posts) | Signalised intersection | Arrow-board location

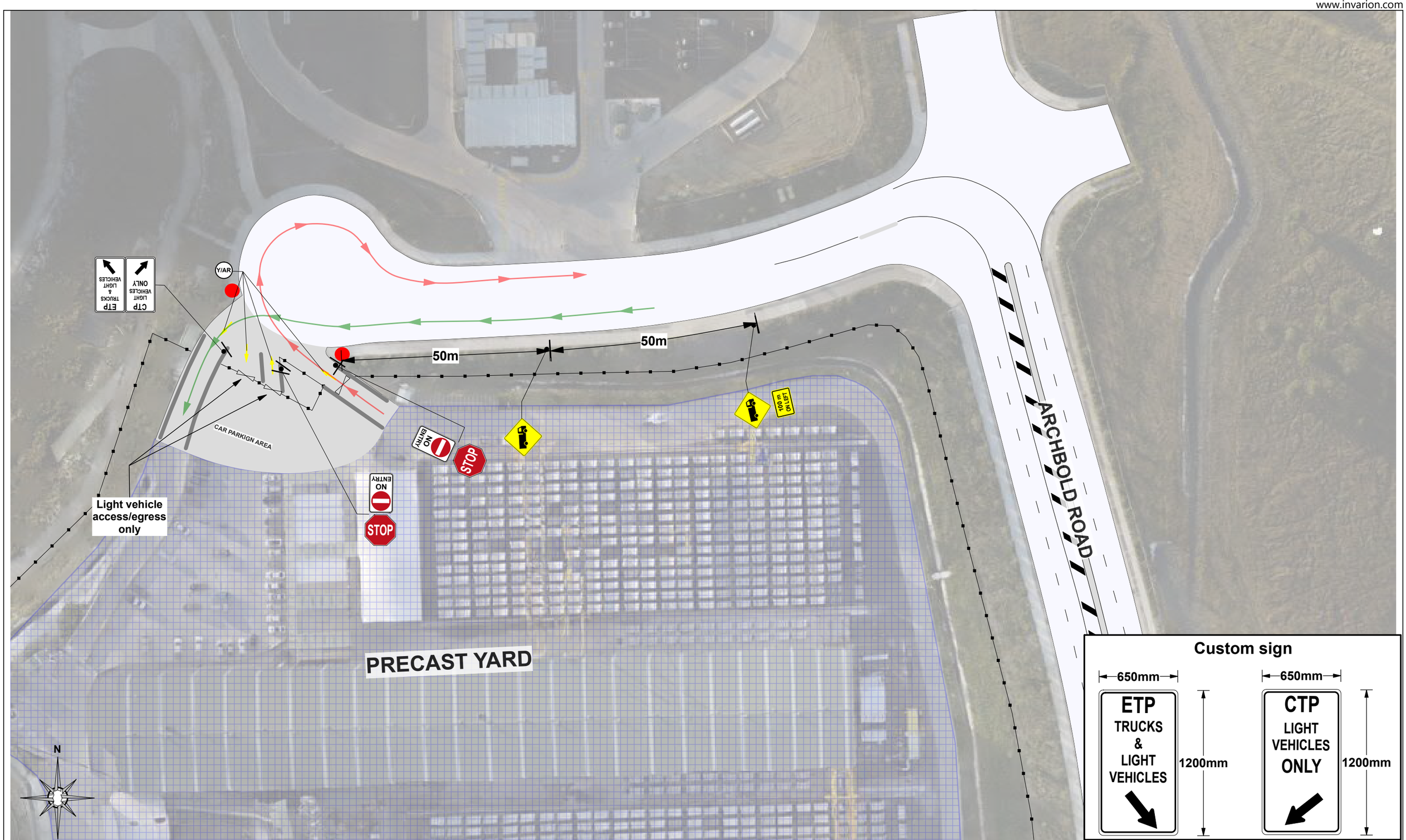
afJV

Date: 28/02/2022 **Location:** Precast yard - Erskine Park **Author name:** [redacted] **TCP Number:** AFJVCTP-TGS-0099 **Page:** 1 of 3

REV - 01

Comments:

- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIRMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TGS
- ANY EXISTING SIGNAGE THAT CONFLIICTS WITH THIS TGS MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT
- ANY CHANGES REQUIRED, SPEAK TO THE SITE FOREMAN AND THEN MODIFY THIS PLAN IF NECESSARY. ANY CHANGES TO THIS PLAN SHALL BE MARKED ON THIS TGS & SIGNED OFF BY A PWZTMP HOLDER.
- A LANE WIDTH OF 3.5m (MINIMUM) IS TO BE MAINTAINED AT ALL TIMES UNLESS NOTED OTHERWISE
- SHOULDER WIDTH / EDGE CLEARANCE TO TRAFFIC CONES OF 0.5m IS TO BE PROVIDED AT ALL TIMES UNLESS NOTED OTHERWISE
- ALL SIGNAGE TO BE 'B' SIZE UNLESS NOTED OTHERWISE
- SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAWS MANUAL 2022 Issue 6.1
- DIMENSION 'D' IS DETERMINED IN ACCORDANCE WITH THE TCAWS MANUAL 2022 Issue 6.1
- BOLLARDS AND TRAFFIC CONES ARE TO BE INSTALLED IN ACCORDANCE WITH THE 2022 Issue 6.1
- TAPER LENGTHS ARE TO BE IN ACCORDANCE WITH THE TCAWS MANUAL 2022 Issue 6.1
- THE SITE MUST COMPLY WITH THE TCAWS MANUAL 2022 Issue 6.1 AND A.S. 1742.3
- REGULATORY SPEED / ROADWORK SIGNS TO BE REPEATED EVERY 400m UNLESS NOTED OTHERWISE



Custom sign

PROJECT: SYDNEY METRO WEST - CENTRAL TUNNEL PACKAGE

LEGEND

Access Route | Egress Route | Indicative fencing | Site Gate | Sign (2 posts) | Signalised intersection | Look for trucks decal

Date: 28/02/2022 **Location:** Precast yard - Erskine Park **Author name:** [redacted] **TCP Number:** AFJVCTP-TGS-0099 **Page:**2 of 3

Comments:

- THE CONTRACTOR SHALL ENSURE ALL ROL AND SZA REQUIRMENTS ARE SATISFIED DURING IMPLEMENTATION OF THIS TGS
- ANY EXISTING SIGNAGE THAT CONFLIICTS WITH THIS TGS MUST BE COVERED AT THE START OF SHIFT AND UNCOVERED AT THE END OF SHIFT
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TGS Number: AFJVCTP-TGS-0099

Traffic Guidance Scheme - Options & Risk Assessment

afJV

Location Details

Road: Picrite Close Suburb: Erskine Park Side Street: NA

Direction: N E S (W) Speed of road: 50 km/h Speed of Side Streets: NA km/h

Options Assessment

Method selected: Around (Past) Through

Reason for selection: Traffic can pass while maintaining safe site access/egress

Risk Assessment

Section 1 - Does the TGS Involve Detours of traffic? YES (NO) (If answered no proceed to section 2)

		YES	NO	Enter description of risks if answered no to any question	Enter Risk Rating
1.1	Are Detour routes suitable for all vehicles classes being detoured?	☐	☐		
1.2	Is Access to local residence and business Maintained	☐	☐		
1.3	Are Detour signs located at decision points, to clearly guide motorists through the detour?	☐	☐		
1.4	Can roads and intersections used as detour routes, accommodate the additional traffic volumes?	☐	☐		
1.5	Is the same level of safety maintained for turn movements? e.g. Traffic using signalized intersections being sent through a detour route that involves turn movements at non-signalized intersections.	☐	☐		

Section 2 - Does the TGS involve Stop/Slow arrangements? YES (NO) If answered no proceed to section 3)

		YES	NO	Enter description of risks if answered no to any question	Enter Risk Rating
2.1	Are escape routes clearly defined on the TGS, clear and safe to use?	☐	☐		
2.2	Is a PTCD used in place of a manual Traffic Controller where existing speed is greater then 45km/h?	☐	☐	*	
2.3	Is the operating speed of the road 60km/h or less where Traffic Control or PTCD are in use?	☐	☐		
2.4	Are x4 Traffic Cones placed on the edge or center line, approaching the Traffic Controller or PTCD?	☐	☐		
2.5	Is Prepare to stop and Traffic Control or PTCD symbolic signs installed?	☐	☐		
2.6	Do Traffic Control and PTCD positions have adequate lighting during low light conditions	☐	☐		
2.7	Does sight distance of at least 1.5D exist on approach to Traffic Control or PTCD				

Section 3 - General		YES	NO	Enter description of risks if answered no to any question	Enter Risk Rating
3.1	Does the TGS define minimum clearances required of workers to live traffic, are distances compliant?	☐	☐	NA	
3.2	Are worker symbolic signs to be placed in advance of areas where workers will be visible to traffic?	☐	☐	NA	
3.3	Are all signs placed at correct distances? i.e. D for multiple signs, 2D for single sign above 60km/h	X	☐		
3.4	Are Taper lengths compliant and not placed in areas with poor sight distance?	☐	☐	NA	
3.5	Are lane status signs placed in advance of a lane merge?	☐	☐	NA	
3.6	Are the correct Tapers being used? i.e. Merge Taper, Traffic Control Taper, Lateral Shift Taper.	☐	☐	NA	
3.7	Does the TGS clearly define transition zones between tapers on multilane roads, are they compliant?	☐	☐	NA	
3.8	Does the TGS clearly define Buffer areas, are they compliant and at least 30m in length?	☐	☐	NA	
3.9	Does the TGS clearly define site access and egress for work vehicles, is impact to traffic, managed?	X	☐		
3.10	Does the TGS clearly define pedestrian routes, are the routes suitable for all pedestrians?	☐	☐	NA	
3.11	Does the TGS consider Cyclists, can Cyclists transverse the site safely?	☐	☐	NA	

Section 4 - Other Hazards & Risks		
	4.1	
	4.2	
	4.3	

Risk Management

Any Risks Identified identified during the above Risk Assessment must be assessed, with control measures listed below. Control measures must meet the WHS Risk Management Hierarchy of controls framework.

Item	Control Measures	Remaining risk rating

Risk evaluation Matrix

Risk ratings: Very high - VH; High - H; Medium - M; Low - L

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

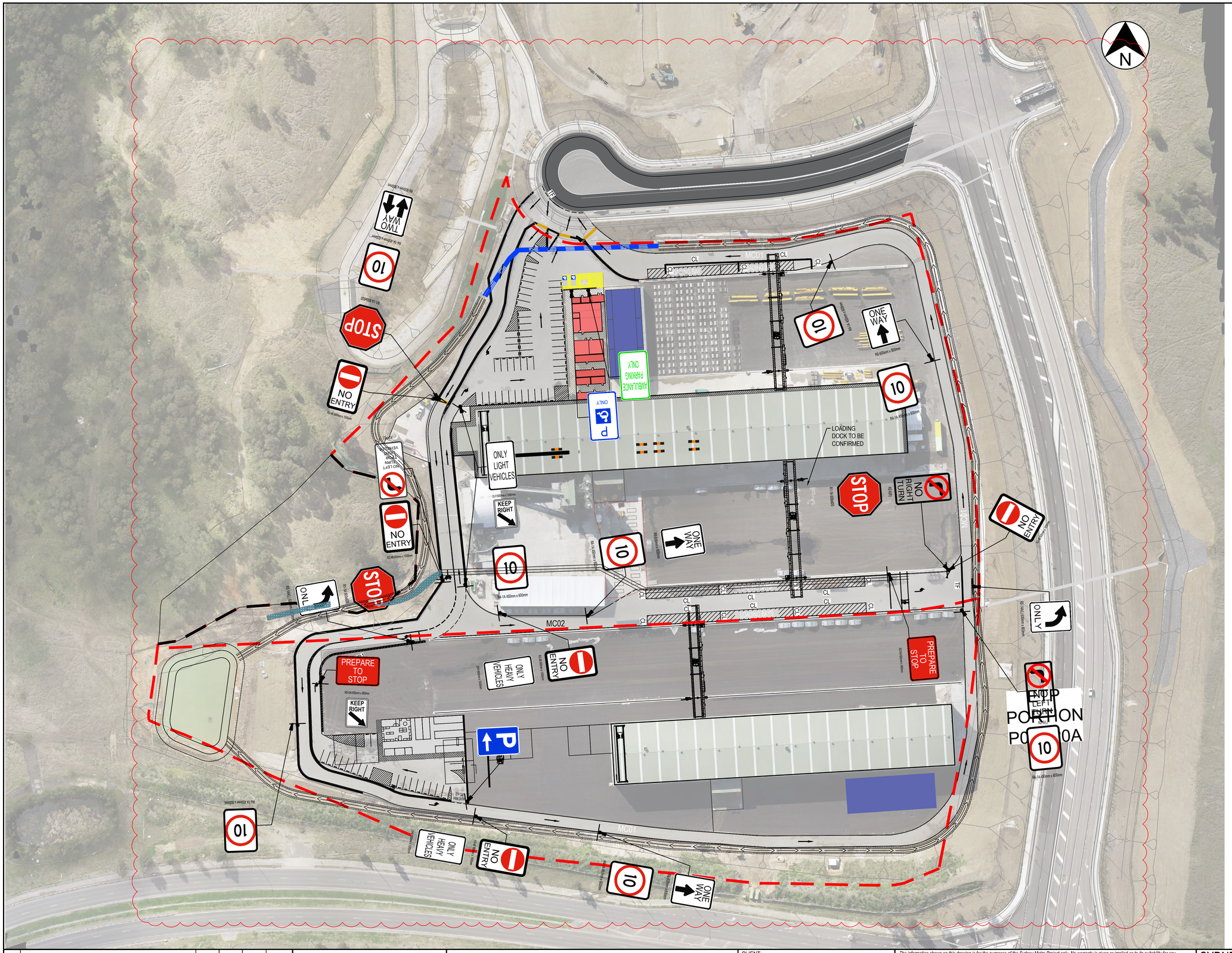
TGS Designer: [redacted]

TGS Approved by: [redacted]

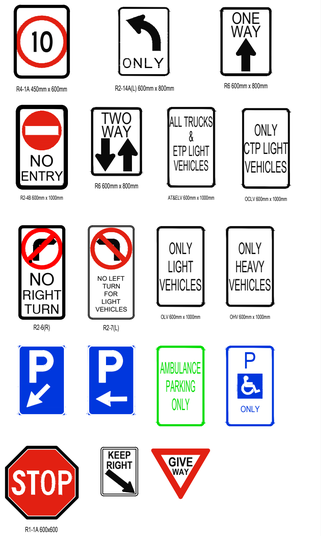
One up Manager: Name_____ Signature_____ Date / / * Denotes approval from one up manger required

APPENDIX B – SITE PLAN

Included for reference purposes only (signage within site has no impact on public traffic).



LEGEND



BOOM GATE BG

CONCRETE BARRIER

BROKEN LINE TB1

STOP LINE TF (300)

PEDESTRIAN LINE PL

LANE LINE L3 (100)

3000 9000

LANE LINE L2 (100)

PARKING LINE CL (100)

SITE BOUNDARY

ARROW AHEAD STRAIGHT

NOTE:
STRAIGHT AHEAD AND TURN ARROWS TO HAVE A MINIMUM LENGTH OF 3m

LEFT TURN ARROW

RIGHT TURN ARROW

REV.	AMENDMENT DESCRIPTION	Design by	Verified by	Approved by	Date
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
50	WORKS AS EXECUTED	SM	CR	CR	05.12.22

SCALE:
0 7.5 15 22.5 30 37.5 m
SCALE 1 : 750

Original | Co-ordinate System: | Height Datum: | This sheet may be prepared using colour and may be incomplete if copied | NOTE: Do not scale from this drawing.

CLIENT:
NSW GOVERNMENT | sydney METRO

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SYDNEY METRO WEST
EASTERN CREEK
CIVIL

SIGNS AND LINEMARKING PLAN

FILE No: - | SHEET: 1 OF 1 | ©
STATUS: | EDMS No:
DRG No: | REV 50 | VER -

100mm AT FULL SIZE Plot Date & Time: 03/12/22 - 17:10

File Path: P:\2021 JOBS\21573C Sydney Metro West - CTP5_Working\WS001 - Eastern Creek Precast Facilities\Drgs & BIM Models\CIV\AutoCAD\As Builts Drawings\Sheets\TF750-TW-DRG-100071-50.dwg

Title block Revision: v6.1

APPENDIX C – DESKTOP ROAD SAFETY AUDIT

Eastern Creek Pre-cast Facility Pre-Construction Detailed Design Road Safety Audit

Prepared for:

Acciona Ferrovial Joint Venture

19 May 2022

The Transport Planning Partnership

Five Dock Traffic Staging

Pre-Construction Detailed Design Road Safety Audit

Client: Acciona Ferrovial Joint Venture

Version: V01

Date: 19 May 2022

TTPP Reference: 21319

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	19/05/2022	[redacted]			

Table of Contents

Tables

APPENDICES

1 Road Safety Audit Summary

Audited project:	[redacted]
Client:	
Project manager:	
Email address:	
Telephone:	
Audit Team:	
Audit type:	
Commencement meeting:	
Audit date:	
Completion meeting:	

2 Introduction

2.1 Background

This report has been prepared on behalf of Acciona Ferrovial Joint Venture (AFJV) for the traffic management plans as part of the Sydney Metro West construction.

This audit addresses the traffic management arrangements proposed for the Eastern Creek Precast facility and is focused on the interface with the public road network.

2.2 Audit Objective

The objective of this Audit was to identify and report on aspects of the design that may result in unnecessary or unreasonable hazards for all road users.

2.3 Procedures and Reference Material

The procedures used are described in the following guidelines:

- Roads and Maritime Services' 2011 Guidelines for Road Safety Audit Practices
- Austroads Guide to Road Safety 2019: Part 6 Managing Road Safety Audits
- Austroads Guide to Road Safety 2019: Part 6A Implementing Road Safety Audits.

Austroads checklist was used by the audit team as a reference in this road safety audit. Key elements examined included:

- design issues
- intersections
- lighting, signs and delineation
- physical objects
- environmental constraints
- other matters including heavy vehicles.

2.4 Audit Team

[redacted]

3 Road Safety Audit Program

3.1 Commencement Meeting

A formal meeting was not held.

3.2 Site and Field Audit

Not required.

3.3 Completion Meeting

Not required.

4 Road Safety Audit Findings

4.1 Introduction

Table 4.1 provides specific details of the audit findings and a risk rating as high, medium or low. The risk ratings have been based on the risk matrix presented in Table 4.1, which has been adopted from the standard Austroads Risk Matrix.

Table 4.1: Risk Matrix

Likelihood / Severity	Highly probable	Occasional	Improbable
Major	High	High	Medium
Moderate	High	Medium	Low
Minor	Medium	Low	Low

The terms in Table 4.1 are described below.

Likelihood:

- Highly probable: It is likely that more than one crash of this type could occur within a five-year period.
- Occasional: It is likely that less than one crash of this type could occur within a five-year period.
- Improbable: Less than one crash of this type could occur within a 10-year period.

Severity:

- Major: The crash is likely to result in a fatality or serious injuries

  For example, high/medium speed vehicle collision, high/medium speed collision with a fixed object, pedestrian struck at high speed, and cyclist hit by car.
- Moderate: The crash is likely to result in minor injuries or large scale of property damage

  For example, some slow speed vehicle collisions, cyclist falls, and rear end crashes.
- Minor: The crash is likely to result in minor property damage or many near miss crash events

  For example, some slow speed collisions, pedestrian walks into object (no head injury), and car reverses into post.

Priority:

- High: Very important, and needs to be addressed urgently.
- Medium: Important, and needs to be addressed as soon as possible.
- Low: Needs to be considered as part of regular maintenance/planning program.

4.2 Responding to the Audit Report

As set out in the road safety audit guidelines, the responsibility for the road rests with the project manager, not with the auditor. The project manager is under no obligation to accept the audit findings. Neither is it the role of the auditor to agree to, or approve the project manager's responses to the audit.

The audit provides the opportunity to highlight potential road safety problems and have them formally considered by the project manager in conjunction with all other project considerations.

4.3 Road Safety Audit Findings

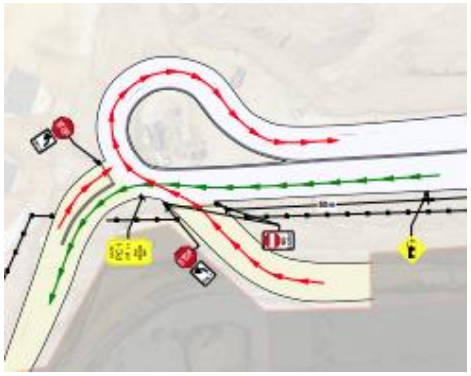
The audit findings are documented in Table 4.2 which provides:

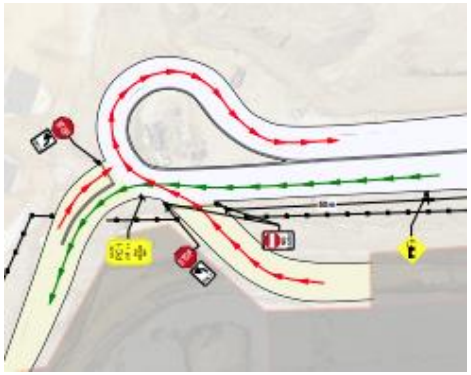
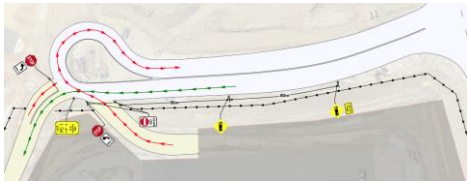
- specific details of the road safety issues identified during the audit
- a risk level rating for each of the road safety audit findings.

It should be acknowledged that positive attributes of the audited road section have not been discussed. Deficiencies that do not cause a safety problem are also not listed.

In-line with Roads and Maritime Services' best practice recommendations have not been included in the road safety audit findings.

Table 4.2: Road Safety Audit Findings

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Response
1	Exit on to public road	The main truck exit from the site is at an acute angle to the roadway. Drivers are required to look over their shoulder to see oncoming traffic entering the site. Further the low angle promotes vehicles to be able to make this manoeuvre at higher speeds. Exiting traffic will cross the path of traffic entering the site. There is a risk of collisions between vehicles leaving the driveway and vehicles turning into the site.		Improbable	Minor	Low	Noted: The Egress gate is signed as 'STOP'. Allowing drivers to observe other traffic prior to entering the roadway.
2	Loop road	The loop road has not been signposted as one-way or 'keep left' at the diverge. There is potential for vehicles to veer down along the road in the wrong direction. This may result in low speed collisions.		Improbable	Minor	Low	Noted: Road was not constructed as a loop, this has now been updated

Item No.	Location	Descriptions of Findings	Design/ Photo	Likelihood	Severity	Risk Rating	Response
3	Closely spaced exits	The two exit point are closely spaced and may increase the risk of a collision between two vehicles exiting at the same time. This may result in low speed collisions.		Improbable	Minor	Low	Noted, both Egress points have been signed as 'STOP' not 'Give Way', to allow vehicles exiting to observe other traffic prior to entering the roadway.
4	Access Road	There is little warning to drivers that the access road is a 'no through road'.				Note Only	Noted
5	Left only sign on driveway exit	As the exit driveway is close to the entry driveway the 'left only' sign could appear to direct traffic back into the entry.				Note Only	Noted, sign orientation is to be checked during installation.

5 Concluding Statement

The findings and opinions in the report are based on the examination of the specific road and environs, and might not address all concerns existing at the time of the audit.

The auditors have endeavoured to identify features of the road that could be modified in order to improve safety, although it must be recognised that safety cannot be guaranteed since no road can be regarded as absolutely safe.

While every effort has been made to ensure the accuracy of this report, it is made available strictly on the basis that anyone relying on it does so at their own risk without any liability to the Auditors.