



Overarching Construction Traffic Management Plan

SMWSTCTP AFJ 1NL TF PLN-000002 Revision 06

Sydney Metro West – Central Tunnelling Package



DOCUMENT APPROVAL

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COMPLIANCE MATRIX

REQUIREMENTS OF THE CTMF SECTION 2.11 OF THE GENERAL SPECIFICATION

Reference	Requirement Description	Section
(a)	The Tunnelling Contractor must plan traffic and transport management associated with the Tunnelling Contractor's Activities to avoid delays and detours that will inconvenience the Affected Public, including Road Users, and Vulnerable Road Users (as defined in the CTMF), particularly during periods of heavy traffic flows.	Section 3.7 Site Specific CTMPS
(b)	The Tunnelling Contractor must plan and execute the Tunnelling Contractor's Activities to ensure conditions for safe and efficient road based public transport services and operations are maintained at all times during the Tunnelling Contractor's Activities	This overarching CTMP Site Specific CTMPs Section 2
(c)	The Tunnelling Contractor must obtain endorsement and approval from relevant Authorities prior to implementing any changes to traffic flow, vehicle, pedestrian, public transport and bicycle movements or adjustments to arrangements for control of traffic on roads, footpaths and shared paths.	Section 3.2
(d)	The Tunnelling Contractor must comply with the Planning Authorities and the following: (i) Construction Traffic Management Plan (CTMP) (ii) TfNSW (RMS) Traffic Control at Worksites Manual (iii) AS1742.3 Manual of Uniform Traffic Control Devices Traffic Control for Works on Roads (iv) Sydney Metro Principal Contractor Health and Safety Standard (SM 20-00039714) (v) Relevant Austroads Guides (vi) Construction Traffic Management Framework (vii) TfNSW (RMS) Supplements to Australian Standards and Austroads	Section 2
(e)	The Tunnelling Contractor must comply with the requirements of all relevant Authorities regarding temporary traffic lanes on roads, including minimum lane width, in accordance with TNSW (formerly RMS) Traffic Control at Worksite Manual.	Section 2
(f)	Vehicles involved in the Tunnelling Contractor's Activities must only enter, operate with or exit from a worksite in a manner which does not endanger the public and under suitably designed and appropriate traffic control measures. Details must be included within the CTMP.	Section 5.1 Section 5.2 Site Specific CTMPs
(g)	At locations where the traffic volumes are increased as a result of the Tunnelling Contractor's Activities the Tunnelling Contractor must take measures to reduce the traffic volumes. These measures may include the introduction of intersections and construction access points.	Section 4.2 Section 4.3
(h)	The Tunnelling Contractor must provide suitable intersections or construction access points for vehicles entering or leaving	Section 5.1

the Construction Site that comply with the requirements of all relevant Authorities

REQUIREMENTS OF THE CTMF SECTION 5 1 11 1 OF THE GENERAL SPECIFICATION

Reference	Requirement Description	Section
(a)	The Tunnelling Contractor must prepare a CTMP that documents how traffic will be managed during the Tunnelling Contractor's Activities.	This overarching CTMP Site Specific CTMPs Section 3
(b)	The CTMP must describe the work activities being proposed, their impact on the roadway and on road users, and how those impacts will be addressed	Section 1 Section 4.6 Site Specific CTMPs
(c)	The CTMP must be prepared in accordance with any relevant Construction Traffic Management Framework and include procedures for unplanned traffic management activities, including emergency work due to incidents, to the satisfaction of relevant authorities	Section 2 Section 3.5.8
(d)	The Tunnelling Contractor must prepare and provide traffic control plans in accordance with the requirements of the CTMF.	Section 3.2.4
(e)	The Tunnelling Contractor must provide copies to the Principal of any traffic control plans approved by relevant authorities	Section 3.2.4
(f)	The Tunnelling Contractor must provide copies of traffic control plans to the Principal in accordance with the timing in the Planning Approvals or prior to commencement of the Project Works (whichever occurs first)	Section 3.2.4

EIS TECHNICAL PAPER 1 – STAGE 1 TRAFFIC AND TRANSPORT MITIGATION MEASURES

Reference	Requirement Description	Section
TT1	The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community liaison.	Section 3 10
TT2	In the event of a traffic related incident, coordination would be carried out with the Transport Coordination and/or the Transport Management Centre's Operations Manager.	Section 3.5.8
TT3	Access to properties for emergency vehicles would be provided at all times.	Section 3.8

TT4	Vehicle access to and from construction sites would be managed to maintain pedestrian, cyclist and motorist safety. Depending on the location, this may require manual supervision, physical barriers, temporary traffic signals and modifications to existing signals or, on occasions, police presence.	Section 3 Section 3.4 Section 3.5 Section 3.9
TT5	Additional enhancements for pedestrian, cyclist and motorist safety near the construction sites would be implemented during construction. This would include measures such as: <ul style="list-style-type: none"> Assessing the suitability of construction haulage routes through sensitive land use areas with respect to road safety Deployment of speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers Providing community education and awareness about sharing the road safely with heavy vehicles Specific construction driver training to understand route constraints, safety and environmental considerations such as sharing the road safely with other road users and limiting the use of compression braking Requiring technology and equipment to improve vehicle safety, eliminate heavy vehicle blind spots, and monitor vehicle location and driver behaviour. 	Section 4.5 Section 3.5 Section 3.5.7 Section 3.9.4 Section 3.6
TT6	All trucks would enter and exit construction sites in a forward direction, where feasible and reasonable.	Section 5.1
TT7	Construction site traffic would be managed to minimise movements during peak periods	Section 3.7.4 Section 4.2
TT8	Construction site traffic immediately around construction sites would be managed to minimise vehicle movements through school zones during pick up and drop off times.	Section 4.5 Section 4.2 Section 5.1
TT10	Where existing parking is removed to facilitate construction activities, consultation would occur with the relevant local council to investigate opportunities to provide alternative parking facilities.	Section 3.10
TT11	Construction sites would be managed to minimise the number of construction workers parking on surrounding streets by: <ul style="list-style-type: none"> Encouraging workers to use public or active transport Encouraging ride sharing 	Section 5.4

	<ul style="list-style-type: none"> Provision of alternative parking locations and shuttle bus transfers where feasible and reasonable. 	
TT12	Any relocation of bus stops and kiss and ride facilities would be carried out in consultation with Transport for NSW including Transport Coordination (for relevant locations), the relevant local council and bus operators. Wayfinding and customer information would be provided to notify customers of relocated bus stops.	Section 3.9.1
TT15	Where existing cyclist facilities (e.g. bicycle parking) would be temporarily unavailable to facilitate construction activities, suitable replacement facilities would be provided for this duration.	Section 3.9.3
TT16	Any relocation of taxi ranks would be carried out in consultation with Transport for NSW, the relevant local council and taxi operators. Wayfinding and customer information would be provided to notify customers of relocated taxi ranks.	Section 3.9.1
TT17	<p>During major special events, impacts to the transport and traffic network would be reduced by (as necessary):</p> <ul style="list-style-type: none"> Minimising the level of construction activity, and if necessary, ceasing all construction activity Maintaining appropriate access to all areas within the event precinct Erection of hoardings, site fencing and gates at key locations within the construction site boundary to permit pedestrian movements adjacent to the construction site and separate pedestrians from construction vehicles Scheduling deliveries to the construction site outside of event periods <p>For special events that require specific traffic measures, those measures would be developed in consultation with Transport for NSW including Transport Coordination (for relevant locations) and the organisers of the event.</p>	Section 3.7.2
TT18	Access to existing properties and buildings would be maintained in consultation with property owners.	Section 3.9.2 Section 3.9.3
TT20	Adjustments to site access arrangements and the local road network would be explored during detailed design to minimise conflicts with heavy vehicle movements	Section 5.1
TT21	Construction site traffic generated at the Five Dock Station construction site would be managed to avoid or minimise travel during the evening peak period	Section 4.2
TT22	Construction site traffic generated at the Five Dock Station construction site would be managed to minimise movements during church service times at St Albans Anglican Church.	Section 4.2 (service times: <i>Sunday 10am and Sunday 6pm</i>)

		<i>outside construction hours)</i>
TT23	Opportunities to provide vehicle access and egress directly to Parramatta Road and minimise the use of Loftus Street at the Burwood North Station construction site would be explored during detailed design.	Section 4 5
TT24	Co-ordination of traffic management arrangements between major construction projects would occur in consultation with Transport for NSW including Transport Coordination	Section 3 10 3 Section 3.10.4

SYDNEY METRO WEST – CONCEPT AND STAGE 1 CONDITIONS OF APPROVAL

Reference	Requirement Description	Section
D80	Access to all utilities and properties must be maintained during works, unless otherwise agreed with the relevant utility owner, landowner or occupier	Section 3.9.3
D81	Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier. Property access must be reinstated within one (1) month of the work that physically affected the access is completed or in any other timeframe agreed with the landowner or occupier	Section 3 9 2
D82	Construction vehicles (including light vehicles) must not use Robert Street, Rozelle to access The Bays metro station construction site, unless required in the event of an emergency or in association with the delivery of the Rozelle power supply from the Rozelle sub-transmission substation to The Bays metro station construction site.	Section 4 5
D83	The locations of all Heavy Vehicles used for spoil haulage must be monitored in real time and the records of monitoring be made available electronically to the Planning Secretary and the EPA upon request for a period of no less than one (1) year following the completion of construction.	Section 3.6
D84	The primary egress routes for spoil haulage trucks at Sydney Olympic Park metro station construction site must be determined in consultation with SOPA.	Section 4 5
D85	Construction Traffic Management Plans (CTMPs) must be prepared in accordance with the Construction Traffic Management Framework. A copy of the CTMPs must be submitted to the Planning Secretary for information before the commencement of any construction in the area identified and managed within the relevant CTMP.	This overarching CTMP Site Specific CTMPs
D86	Local roads proposed to be used by Heavy Vehicles to directly access construction sites that are not identified in the documents listed in Condition A1 of this schedule must be approved by the Planning Secretary and be included in the CTMPs.	Section 4.5 Site Specific CTMPs

D87	<p>All requests to the Planning Secretary for approval to use local roads under Condition D86 above must include the following:</p> <ul style="list-style-type: none"> (a) a swept path analysis; (b) demonstration that the use of local roads by Heavy Vehicles for the CSSI will not compromise the safety of pedestrians and cyclists of the safety of two-way traffic flow on two-way roadways; (c) details as to the date of completion of the road dilapidation surveys for the subject local roads; and (d) measures that will be implemented to avoid where practicable the use of local roads past schools, aged care facilities and child care facilities during their peak operation times; and (e) written advice from an appropriately qualified professional on the suitability of the proposed Heavy Vehicle route which takes into consideration items (a) to (d) of this condition 	Section 4.5 Site Specific CTMPs
D88	<p>Before any local road is used by a Heavy Vehicle for the purposes of construction of Stage 1 of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the Relevant Road Authority(s) within three (3) weeks of completion of the survey and at no later than one (1) month before the road being used by Heavy Vehicles associated with the construction of Stage 1 of the CSSI</p>	Section 3.3.9
D89	<p>If damage to roads occurs as a result of the construction of Stage 1 of the CSSI, the Proponent must either (at the Relevant Road Authority's discretion):</p> <ul style="list-style-type: none"> (a) compensate the Relevant Road Authority for the damage so caused; or (b) rectify the damage to restore the road to at least the condition it was in pre-work as identified in the Road Dilapidation Report. 	Section 3.3.9
D94	<p>A Traffic and Transport Liaison Group(s) must be established in accordance with the Construction Traffic Management Framework to inform the development of CTMPs.</p>	Section 3.10.3
D95	<p>Supplementary analysis and modelling as required by TfNSW and / or the Traffic and Transport Liaison Group(s) must be undertaken to demonstrate that construction and operational traffic can be managed to minimise disruption to traffic network operations including changes to and the management of pedestrian, bicycle and public transport networks, public transport services, and pedestrian and cyclist movements. Revised traffic management measures must be incorporated into the CTMPs.</p>	Section 4.3
D97	<p>Permanent road works, including vehicular access, signalised intersection works, and works relating to pedestrians, cyclists, and public transport users must be subject to safety audits demonstrating consistency with</p>	Section 3.3

	relevant design, engineering and safety standards and guidelines. Safety audits must be prepared in consultation with the relevant Traffic and Transport Liaison Group before the completion and use of the subject infrastructure and must be made available to the Planning Secretary upon request.	
D98	Safe pedestrian and cyclist access must be maintained around construction sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, a proximate alternate route which complies with the relevant standards, must be provided and signposted before the restriction or removal of the impacted access.	Section 3.4 Section 3.5

SYDNEY METRO WEST – ROAD INTERFACE AGREEMENT

Reference	Requirement Description	Section
Annexure A Section 5	<p>Traffic Control Signals</p> <p>(a) The traffic signal installation work (permanent or temporary) must be in accordance with TfNSW Traffic Control Signals – New Installation and Reconstruction TfNSW specification IC-QA-TS101.</p> <p>(b) Without limiting paragraph (i) LED (Light Emitting Diode) traffic signal lanterns must be used for all traffic signal works. Reconstruction of existing sites which currently utilise Incandescent or Quartz Halogen lanterns must be upgraded to LED lantern sites in accordance with Technical direction TDT2012/07.</p> <p>(c) All traffic control signal installation is to be undertaken by a suitably pre-qualified traffic signal contractor acceptable to the TfNSW</p> <p>(d) All traffic signal equipment must be new, must be supplied by Sydney Metro or its contractor (including without limitation housing labels) and must comply with TfNSW Specifications</p> <p>(e) CCTV cameras and associated works must be installed to enable monitoring of traffic regulated by all traffic control signals installed pursuant to this Agreement to the satisfaction of TfNSW.</p>	Section 3.5.4
Annexure A Section 6	The Traffic Management and Safety Plan must include Traffic Control Plans (TCPs) and contain detailed provisions covering (as a minimum) all of the following matters, or how the following outcomes are to be achieved, as the case may be:	Cover in this document, site specific CTMP and other sub plans

(a) how work practices and equipment must provide for the safe passage of all road users, including public transport, pedestrians and pedal cyclists, at all times during the Works.	Section 3.5
(b) comply with TfNSW QA Specification G10, traffic management practices set out in the TCAWS Manual, all TfNSW Technical Directions (current as at the date of this Agreement), Austroads and TfNSW Supplements and Australian Standard AS1742.3 2019 and any other relevant Australian Standards	Section 2
(c) contain scaled drawings of the affected section of road including lane widths, sign spacing and traffic control devices proposed. If temporary pavement marking changes are proposed then a TCP is also required for the pavement marking The Designer of the TCP must have visited the site to ensure that the proposed location of signage is suitable and practical.	Section 3
(d) how access to private land is to be maintained or appropriate detours and arrangements provided.	Section 3.9.3
(e) contain appropriate signage to warn road users of construction vehicle entry/exit points and of excavations.	Section 3 5
(f) identify a Vehicle Movement Plan (where required by TCAWS) showing signage and other directional devices.	Section 3
(g) be signed and dated including the Designer's certificate number	Section 3
(h) how and when Road Safety Audits of all traffic management, compliance with the Traffic Management and Safety Plan and all TCPs are to be carried out	Section 3 3
(i) obtain approval from the TfNSW Representative and other relevant Government Agencies, prior to implementing any traffic adjustments or interruption, noting that that traffic changes or lane closures which are considered by TfNSW as likely to cause unnecessary delay or disruption to traffic will not be permitted.	Section 3.2.8
(j) how TCPs must be regularly reviewed and modified in conjunction with the TfNSW Representative, traffic management personnel, and emergency services personnel and any other relevant Government Agency.	Section 3.3.3
(k) where road works speed zone restrictions are proposed, a Speed Zone Authorisation is required.	Section 3 2 8
(l) how traffic will be managed during any emergency identified in the Emergency Response Plan or other	Section 3.5.8

emergency work

Traffic Management Section 18	Other than as approved pursuant to the provisions of this Agreement (including in accordance with clauses 7 2(b) and 18.4) in carrying out the Works Sydney Metro must ensure that the TfNSW Operational Imperative is achieved at all times	This overarching CTMP
	<p>The Traffic Management and Safety Plan must be complied with at all times, except:</p> <p>(a) with the prior written approval of TfNSW to a particular departure from that Plan, and</p> <p>(b) where any provision of, or anything done under, this Agreement (including any direction or requirement under this clause 18) requires something different, in which case the specific direction or requirement applies.</p>	
	<p>Must comply with any Requirement in respect of any traffic control proposal or arrangement including any instruction to re-open any traffic lane or shoulder to traffic without delay, whether or not that lane or shoulder was closed by prior agreement or approval pursuant to this Agreement or otherwise</p>	Section 3 5 8
	<p>Road occupancies, detours and closures</p> <p>(a) must obtain approval from Customer Journey Management for all road occupancies, detours and closures in accordance with this Agreement. TfNSW may elect to prohibit road or lane closures due to Special Events or other high traffic demands.</p>	Section 3.2.8
	<p>(b) Road Occupancy Applications must be submitted at least 10 days before the Works requiring road occupancies, detours and closures are scheduled to commence</p>	Section 3.2.8
	<p>When any unplanned closure of a lane or a restriction in the flow of traffic occurs on any Road, AFJV must immediately advise the Sydney Metro and TfNSW Representative of the nature of the closure or restriction and of the schedule for reopening of the lanes AFJV must take all required measures to open the lane or remove the restriction in the flow of traffic as quickly as possible</p>	Section 3.5.8
	<p>AFJV must ensure that:</p> <p>(a) any Traffic controlling person or entity used to manage traffic in relation to the Works is registered with TfNSW as Category G; Traffic Controlling; and</p>	Section 3 2 2 Section 3.2.4

(b) all persons who are required to perform the duties of a traffic controller have undertaken training in the following relevant training package(s) and are examined and certified as competent to perform their respective traffic controller duties:

Section 3.2.2
Section 3.2.4

(i) TfNSW QA Specification G10 Traffic Management Section, Qualifications refer Section 1.7.3; and

(ii) Traffic Control at Work Sites (TCAWS) Traffic Controller qualification refer Section 2.4.1 of TCAWS

Traffic Accidents on or Near Work Sites During Construction
Section 22

In the event of a traffic accident occurring within the Site or at other locations affected by the Works, Sydney Metro must record its knowledge of the facts and must photograph the approach to the accident site including the location of all safety devices and signs as soon as possible after the accident.

Section 3.5.8

A report with this information must be forwarded to the TfNSW Representative within 2 days of the occurrence of the accident

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1. INTRODUCTION

1.1 BACKGROUND

The Sydney Metro West Central Tunnelling Package (the Project) involves the construction of 11km of twin tunnels from The Bays Precinct to Sydney Olympic Park.

The Acciona Ferrovial Joint Venture (AFJV) will deliver the Project in partnership with NSW Government and Sydney Metro (SM). Our vision is to work with SM to deliver an integrated Sydney Metro West embraced by stakeholders as value for money and by customers as the journey of choice

1.2 PURPOSE

AFJV aim to maintain a safe environment for all road users by effectively maintaining traffic flows during the works and managing haulage vehicles using the nominated haulage access routes between the site and the designated arterial road network.

The purpose of this Overarching Construction Traffic Management Plan (CTMP) is to clearly outline:

- An overview of project works
- Requirements for the development of Site Specific Construction Traffic Management Plans (CTMP)
- The approval process and timelines for CTMPs, other plans and permits
- Inspection requirements for long & short term temporary traffic management arrangements
- The overall strategy for managing public traffic; past, around or through project construction sites

This document is intended to replace the Traffic Management and Safety Plan

1.3 CONSTRUCTION TRAFFIC MANAGEMENT OBJECTIVES

The primary objectives and principles of this overarching 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 New South Wales (TfNSW), SM, relevant Council, SOPA and Port Authority
- Managing the safety risk of employees, contractors and road users
- Meet the requirements of the Project brief, project specifications, and TfNSW Traffic Control at Work Sites (TCAWS) Manual.

To achieve these objectives, AFJV would implement appropriate measures to address the relevant requirements in Volume 4A (General Specifications) and Volume 4B (Particular Specifications), EIS Appendix F (Construction Traffic Management Framework), Interface Agreements and the Minister for Planning and Public Spaces' Concept and Stage 1 Conditions of Approval

2. CTMP STRATEGY

The overarching strategy of the CTMP to support the delivery of the project objectives is to:

- Consider road users during different stages of the Project
- Provide alternate routes for pedestrians and cyclists during construction
- Design works so that interaction with existing road users is minimised thereby creating a safer work and road user environment
- Implement traffic controls to warn, inform and guide road users.
- Communicate changes to roads or paths to emergency services, public transport operators, other road user groups and any other affected stakeholders
- Develop and maintain a Construction Parking and Access Strategy (CPAS) for construction staff at the station construction sites, in consultation with local councils and stakeholders associated with any facilities adjacent to the Project site. This includes the promotion of public transport and car pooling to reduce worksite-related vehicle movements, and investigate options for parking strategies to reduce parking on local roads. The design of the site layout with aim to minimise interaction between work vehicles and the public, wherever practicably possible
- Develop site specific CTMPs in consultation with relevant stakeholders

AFJV will comply with Authorities including TfNSW's Customer Journey Planning (CJP), relevant Councils, Port Authority and Sydney Olympic Authority (SOPA) When preparing site-specific CTMPs at each construction site, the following documents will also be complied with:

- Construction Traffic Management Framework (CTMF)
- TfNSW (RMS) Traffic Control at Work Sites manual (TCAWS)
- AS1742.3 Manual of Uniform Traffic Control Devices – Traffic Control for Works on Roads
- Sydney Metro Principal Contractor Health and Safety Standard (SM 20-00039714)
- Relevant Austroads Guides
- TfNSW (RMS) Supplements to Australian Standards and Austroads.
- Minister for Planning and Public Spaces' Concept and Stage 1 Conditions of Approval
- Sydney Metro General and Particular specifications

3. MANAGEMENT APPROACH

AFJV's approach to traffic and safety management is to reduce potential risks and achieve greater certainty in the safe delivery of the Project by:

- Considering safety for all road users and project personnel by implementing systems to allow clear separation between the works and public space, including heavy vehicle operations
- Managing priority of access and minimising disruption to emergency access, events, pedestrians, cyclists, public transport, service vehicles, coaches, taxis, kiss and ride rideshare and private cars, in the same hierarchy of access specified in the CTMF
- Maintaining access to adjoining businesses, residents, public transport operations and commercial properties, including over-dimensional and service vehicles, unless otherwise agreed with the property owner or user
- Encouraging site personnel and office workers to use public transport
- Collaborative planning of traffic management including cumulative traffic impact assessments
- Maintaining an adequate level of road safety within the Project boundaries by collaborating with TfNSW, Sydney Metro, affected local councils, SOPA and Port Authority.

3.1 ROLES AND RESPONSIBILITIES

The Project Director has authority to deliver all aspects of this Project. AFJV may engage the services of specialised subcontractors in carrying out certain duties, while always retaining control and coordination of the design and construction processes

During construction, the traffic management team is responsible for the review and updating of the CTMPs. The traffic management team also develops, reviews, and maintains Traffic Guidance Schemes, Vehicle and Pedestrian Movement Plans and Road Occupancy License submissions

The roles and responsibilities of the traffic management team are provided as follows:

- Construction Director
 - The Construction Director will support the traffic management team in complying with the traffic management requirements
 - Driving an 'incident and injury free' culture in all areas of construction and traffic management
 - Drive quality assurance procedures that are maintained in accordance with project requirements
 - Approve the Overarching CTMP and revisions
- Project Wide Construction Manager
 - Reports to the Construction Director as part of the Project Management Team
 - Accountable for the overall construction of the Surface Works
 - Directs the Traffic Manager to prioritise work for the safety of road users, community and construction personnel
- Traffic Manager
 - Reports to the Project Wide Construction Manager

Leads the traffic management team
 Reviews CTMPs, Traffic Guidance Scheme (TGSs) formerly known as Traffic Control Plans, and Road Occupancy Licences' (ROLs) prior to submission to stakeholders or installation
 Checks traffic management sub-contractors meet requirements of the CTMP
 Defines the requirements for traffic management and checks that they are satisfied through inspections and audits
 Ensures the CTMPs are communicated to relevant AFJV personnel
 Checks that long term traffic arrangements are implemented in accordance with the CTMP, TGS and ROL, and are maintained appropriately

- Traffic Coordinator
 - Reports to the Traffic Manager
 - Develops CTMPs, TGSs and ROL submissions
 - Checks that traffic layouts are implemented in accordance with the CTMP, TGS and ROL, and are maintained appropriately
 - Coordinates traffic control requirements across the project to ensure permit and approval requirements are met.
 - Maintains accurate records of traffic management
- Traffic Supervisor
 - Reports to the Traffic Manager
 - Checks implementation of the CTMPs, TGSs, and ROLs
 - Checks that traffic controllers have the necessary competencies to perform their tasks
 - Responsible for safety checks and inspections for the implementation of the CTMPs
 - Conducts installation and maintenance works for traffic management devices outlined within the CTMPs
 - Maintains records of road conditions across the project sites
- Traffic Controllers
 - Install and remove traffic control measures in accordance with approved TGSs
 - Regularly check the temporary setup is implemented in accordance with the approved TGSs
 - Follow traffic controller code of conduct
 - Have the correct licenses and competencies to perform their task
 - Maintain accurate site records
 - Report any incidents or concerns to the Traffic Supervisor

3.2 DEVELOPMENT AND INSTALLATION OF PLANS AND PERMITS

This procedure details responsibilities for the development and installation of CTMPs, TGSs, traffic modelling and other plans, along with the timelines for review and approval of the plan and ROL submissions.

3.2.1 CONSTRUCTION TRAFFIC MANAGEMENT PLANS (CTMP)

The CTMPs are based on the principles and strategies of the CTMF specified in the EIS Appendix F, obligations under the Project Deed and the requirements of relevant road authorities and other stakeholders

Site Specific CTMPs are developed for each of the station construction sites, and for any other long term or high impacting traffic management arrangement that relevant authorities determine requires a CTMP.

Content of site specific CTMPs will generally include the following:

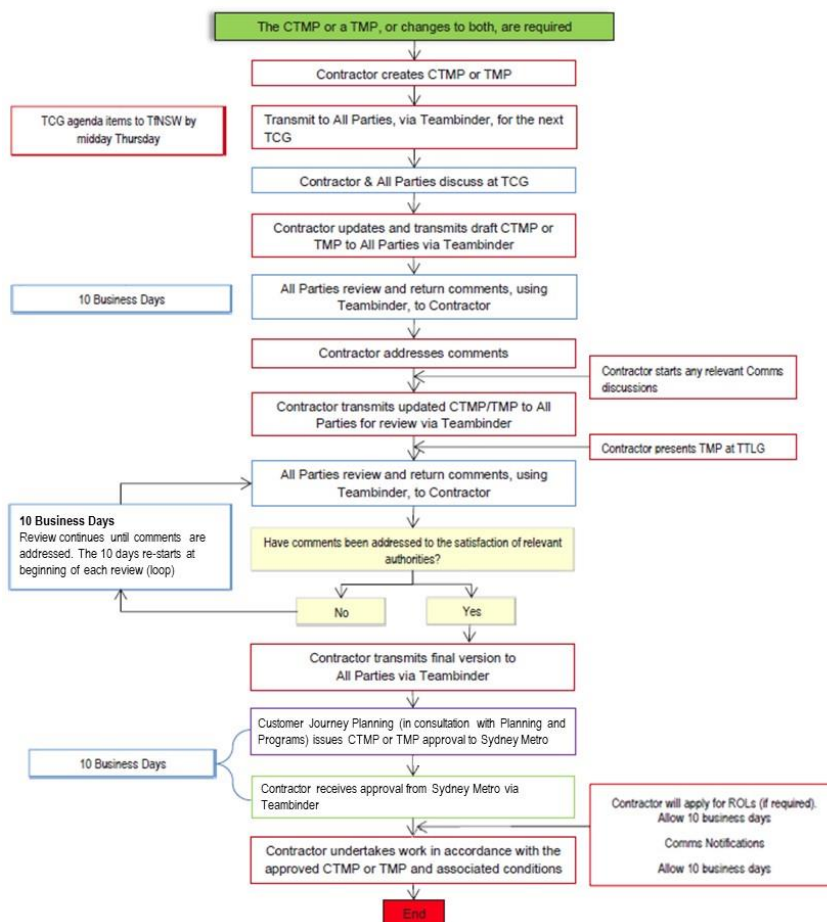
- Overview of existing road conditions and public transport facilities
- Overview of construction activities and traffic management requirements
- Traffic Staging Plans
- Heavy vehicle routes and volumes
- A description of how traffic management will be established
- A description of traffic management for specific construction activities
- Traffic management measures/devices that will be implemented
- Special events (Class 1, 2, 3 and 4)
- An analysis of resultant traffic conditions and impacts analysis where required
- Incident management and response
- Overview of stakeholder consultations
- Road safety audit

CTMPs would be discussed, reviewed, and finalised in consultation with CJP, TfNSW, SM and affected local councils or authorities, through various forms of consultation and at Traffic Control Group (TCG) meetings.

Changes to CTMPs will also be discussed with relevant stakeholder representatives through various forms of consultations and at TCG meetings where required.

CTMPs will be submitted to TfNSW for final review with a 10 day response time and 5-day response time for subsequent comments in accordance with the CTMP flowchart in CTMF Figure 6 1 which has been replicated below.

FIGURE 3.1: OVERARCHING CTMP AND SITE SPECIFIC CTMP APPROVAL FLOW CHART



3.2.2 TRAFFIC STAGING PLANS

Traffic staging plans are developed in accordance with the Traffic Control at Work Sites Technical Manual (TCAWS), Austroads guidelines, Australian standards and relevant TfNSW supplements. The plans will show the required long-term traffic arrangements to guide road users past, around or through the site areas safely during temporary works. This may include:

- Changes to lane configurations
- Intersection layouts
- Existing and temporary traffic signage, delineation and line marking
- Footpaths and other public transport facilities
- Work areas and worker access & egress locations
- Lighting
- Safety barriers and other road safety devices

Traffic Staging Plans will be drafted by a suitably qualified road designer where horizontal or vertical alignments are affected or changed. A suitably qualified designer will also be engaged where civil or utility works are required, this may include pavement upgrades, changes to drainage or other utilities or civil works.

The layout of traffic safety devices, signage and delineation will be drafted and reviewed by a suitably qualified PWZTMP qualified person.

Traffic Staging Plans will typically be included within a site specific CTMP and be approved through the CTMP review and approval process. Further approval requirements may exist for designs

containing civil and utility adjustments/installations, these requirements will be assessed for each situation

3.2.3 TRAFFIC MODELLING

At times traffic modelling may be required to determine if any changes to traffic arrangements or proposed additional construction traffic volumes, will create an unacceptable impact to the public

The need for traffic modelling is normally identified through consultation with relevant stakeholders.

Where required, traffic modelling is typically included within a site specific CTMP, for review as part of the normal CTMP review and approval process

3.2.4 TRAFFIC GUIDANCE SCHEMES (TGS)

A variety of traffic management arrangements will be required across the project to facilitate project works. To manage these works safely, TGSs are developed by a PWZTMP qualified person, in accordance with the CTMF and TCAWS and will generally include:

- Location of work area and layout of the surrounding roads and footpaths
- Arrangement/layout of temporary signs to warn and guide the public
- Delineation to clearly define work areas and guide the public
- Location of Traffic Controllers and any additional duties they may need to perform
- Other safety or operations requirements that may need to be installed and/or followed.

Typically, TGSs drafted for the project will be 'site specific', to ensure existing road conditions are considered, and the identified traffic management arrangements are best suited for works to be carried out safely for workers, traffic controllers and the public

Each TGS drafted will be risk assessed and approved by a second PWZTMP qualified person

TGSs are typically drafted as sub plans to the site specific CTMPs and will only be installed with the relevant ROLs and/or council approvals in place, where required

When requested, AFJV will provide copies of any TGSs to TfNSW, Sydney Metro or other relevant authorities, in accordance with the timing in the Planning Approvals, or prior to commencement of the Project Works (whichever occurs first)

TGSs will only be installed by suitably competent and qualified people in accordance with section 2.4 of the TCAWS.

3.2.5 VEHICLE MOVEMENT PLANS (VMP)

Vehicle Movement Plans are drawings and diagrams that show preferred travel paths for vehicles associated with a construction site, entering or leaving the traffic stream. Preparation of the plan takes the following features into consideration:

- Entering and exiting work sites to and from adjacent travel lanes
- Reversing manoeuvres within the work area and in the adjacent travel lanes
- Travelling through the work area, past construction personnel and in the vicinity of unprotected hazards
- Slew paths of excavators and cranes may impede traffic paths
- Turning paths of single unit trucks with or without semi trailers, and vertical clearance
- Hauling at night, where specific conditions, e.g. lighting, may need to be addressed.

Construction teams will consider the following features for internal vehicle and worker-pedestrian management:

- Overhead obstruction, including power lines, communication cable, tunnel portal, bridges, footbridges, conveyor and ventilation ducting
- Loading and unloading zones and stockpile, including separation of vehicle and pedestrian movements, and separation of loader with other plant and personnel under high intensity work
- Protection of elevated structures and critical infrastructure (kiosk, sheds, amenities, etc)
- Provision of separated and delineation worker-pedestrian paths.

AFJV will apply controls and measures to restrict certain traffic movements and install temporary traffic controls, and warning devices on vehicles where required.

3 2 6 PEDESTRIAN MOVEMENT PLANS (PMP)

PMPs are developed for construction sites that impact on pedestrian travel paths. These plans are normally designed in the form of a TGS, and included within the relevant site specific CTMP where required. The PMP is to show the allocated paths for both workers and the public, including signage and devices, where relevant.

3 2 7 TRAFFIC CONTROL SIGNAL PLANS (TCS)

A TCS plan is required wherever there's intent to change the layout or any components of traffic signals or where an intersection is to be updated to a signalised intersection. TCS plans are to show proposed layouts, traffic signal phasings, location and type of lanterns, posts, detector specification and signal group phase charts.

TCS Plans will comply with TfNSW specifications. AFJV will use the permanent signal arrangements during construction as much as possible.

Before installing any TCS plan, approval of the plan will be obtained in accordance with Section 6.7 of the CTMF.

3.2.8 ROAD OCCUPANCY LICENCE (ROL) AND OTHER PERMITS

AFJV will comply with CTMF Section 6.4 requirements for the preparation and submission of ROL applications, to obtain the relevant licences permits and/or 'no objections'. ROLs will be obtained in advance of the works, and TGSs will only be implemented when the ROL allows.

ROL applications through TMC will be submitted a minimum of 10 business days before starting works. Electronic lodgement of the ROL will be undertaken using the TfNSW OPLINC system. Council's road occupancy licences, permits or no-objections will be lodged in accordance with the various Council timelines. A register of permits, licences and no-objections will be developed and maintained through the project period.

It's noted that in some instances it may not be possible to meet the required timelines for ROL submissions. In this instance an ROL will be applied for as soon as reasonably practicable, and consultation will occur with the relevant authority. Works will not proceed unless the relevant authority has issued the required ROL, permit or no-objection.

3.3 INSPECTIONS, AUDITING AND MONITORING

3.3.1 ROAD SAFETY AUDITS

Austrroads defines a road safety audit as a formal examination of a future road or proposed changes to an existing road, in which an independent, qualified auditor(s) reports on the roads crash potential and safety performance. There are various types of audits conducted, from feasibility audits through to post-opening audits. Audits are conducted to assess the safety of existing roads and temporary long term traffic arrangements implemented for roadworks.

The Construction Traffic Management Framework in EIS Appendix F, a road safety audit is a “*formal procedure for checking the design, implementation and operation of road works and other traffic measures from a safety perspective. The establishment of quality systems provides the philosophy underpinning the RSA process. The overriding objective of the process is to ensure that all existing road schemes and future routes operate at an acceptable level of safety, with safety being an integral part of the road network development process.*”

Where required Road safety audits will be conducted in accordance with the Austrroads Safety Audit Guide Part 6A (Implementing Road Safety Audits), TfNSW Guidelines for Road Safety Audit Practices and Technical Direction TD 2004/RS01 Accident Reduction Guide Part 2: Road Safety Audits.

Audits will be conducted for each CTMP prior to construction of each station construction site, including vehicular access and exit driveways, pedestrian, cyclist and public transport safety.

The audit will be conducted by a qualified, independent, road safety auditor. The auditor will have Road Safety Auditor Level 3 Certification, have undergone road safety audit training and listed on the NSW Centre for Road Safety's Register of Road Safety Auditors.

The responsibility for and frequency of audits is summarised in Table 3 1

TABLE 3 1: ROAD SAFETY AUDITS

Audit Type	Responsibility	Frequency
Temporary (long term) traffic arrangements	Traffic management to engage a qualified team independent to the design	On the traffic staging plan prior to being installed, and following installation of the traffic staging plan
Final road alignment / new road works		Immediately prior to opening any part of the Project works to traffic, or within 24hr of opening the roadway to traffic.

The following methodology will be applied on this Project when conducting the road safety audits:

- Hold a commencement meeting between auditors and AFJV, if required.
- Review relevant documents (including design plans, previous audits)
- Auditor to conduct site inspections during the day and night, noting deficiencies and hazards
- Assess the inspection findings in accordance with relevant practices, guides and current standards
- Prepare an audit report, which includes a table detailing the deficiencies identified
- Where road safety deficiencies are identified through these audits, amendment to the relevant CTMPs and TGSs will be made to address the deficiencies, where required.

3.3.2 INTERNAL INSPECTIONS AND AUDITS

Throughout the duration of the project a number of audits and inspections will be conducted, a schedule of these audits and inspections are listed below with a copy of the forms used, found within Appendix A

TABLE 3 2: SCHEDULE OF AUDITS AND INSPECTION CHECKLISTS

Type	Responsible	Frequency
Daily Hazard Analysis Checklist (HAC)	Traffic Control Team Leader	Start of each shift, with regular site inspections throughout and at the end of each shift
Weekly Supervisors Report	Traffic Supervisor	Weekly
Inspection Traffic Management	AFJV	Twice weekly
VMS Inspection checklist	Subcontractor and AFJV	Each VMS installed
Safety Observation	AFJV	As required

3.3.3 REVIEW OF PLAN

The Traffic Manager will coordinate the review, development and update of CTMP and TGS plans throughout construction for the following reasons:

- To address changes in the design and construction process
- To address changes to legislation
- For design and construction processes which the existing CTMP does not address
- In response to any incidents or traffic disruptions arising from AFJV's work
- To avoid recurrence of any compromise to the safety of road users and the public
- If requested to do so by TfNSW for operational or safety reasons
- To consider changes in site conditions
- To consider changes to work, health and safety practises
- To incorporate feedback from the community
- To consider safety observations conducted by the project and resulting recommendations

Regardless of the events above, site specific CTMP will be reviewed at least every three months. Each TGS will be reviewed at least every 6 months. CTMP reviews will normally be completed in the form of an '*inspection traffic management*' across both the CTMP and onsite operations TGS reviews will normally be completed prior to each use of a TGS, before works are scheduled to commence. The CTMPs & TGSs will only be revised and up revved, if; a change to the document or plan is required

3.3.4 CONTINUOUS IMPROVEMENT

Continuous improvement of the CTMP will be made by the ongoing evaluation of traffic management performance against AFJV's objectives and targets for the purpose of identifying opportunities for improvement. The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of traffic management and traffic safety
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non conformances and deficiencies
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets
- Lucidity software will be used to capture corrective items, safety inspection findings, incidents, non-conformance, hazards, complaints, and improvement opportunities. Items logged will be raised to the appropriate person to action and will be logged.

3.3.5 CORRECTIVE ACTIONS

Deficiencies identified during audits and site inspections will be discussed with relevant Project Managers from the appropriate site. Where possible, AFJV will aim to rectify the deficiency immediately.

Audit results requiring follow-up actions will be raised as either an observation or a non conformance. Any identified actions will be assessed against a safety matrix to nominate the probable consequence and likelihood of any risk identified. High risk issues will be addressed immediately.

Any proposed changes to current CTMPs will be initiated by the Traffic Manager after consultation with construction personnel. Corrective actions will be undertaken at the next available safe opportunity. Interim risk management will be implemented if necessary and may include warning signage, VMS messaging and public broadcasts in consultation with the Stakeholder & Community Relations Director.

3.3.6 PREVENTATIVE ACTIONS

The Traffic Manager will analyse and review the following data to determine trends, and determine the scope and timing of preventive action to be taken to reverse negative trends, or to prevent a recurrence of poor outcomes:

- Results of incident and crash investigations
- Incident, near miss and observation reports
- Daily Inspection Checklists
- CTMP Implementation Audit Checklist
- Results of traffic flow monitoring
- Feedback from TTLG meetings and other meetings with external agencies
- Changes to legislation, technical manuals and guidelines
- Industry reports.

All preventive actions will be monitored to determine their effectiveness. The requirements for additional measures will also be monitored.

3.3.7 REPORTING

Where required, AFJV will report to TfNSW, SM, Councils and SOPA on all traffic and transport management issues related to the Project. This reporting may be carried out in various formats such as emails, meetings or other forms of communication.

The intention of reporting will be to maintain compliance with requirements and seek feedback from relevant stakeholders.

3.3.8 ISSUES REGISTER

Lucidity is an online platform used by AFJV to conduct various audits and to record safety observations. Records of audits, assigned actions, and observations are maintained within Lucidity and therefore will also act as an 'issues register'. This will be subject to audit at monthly intervals and findings shared with Sydney Metro Team upon request.

Recurring issues or urgent non-compliance will be escalated to senior management for corrective action.

3.3.9 DILAPIDATION REPORTS

AFJV will undertake road dilapidation surveys on public local roads before they are used for construction heavy vehicle movements and following completion of the works in accordance with the Project Planning Approval Condition D88 and D89.

The survey results will be provided to the relevant local councils, SOPA, Transport for NSW, and other Relevant Road Authorities within three (3) weeks of completion of the survey and at a date no later than one (1) month before the road being used by construction heavy vehicles in accordance with D88. These surveys will include, where required, pavement strength testing, cracking and rutting surveys, and road inventory.

The pre-construction condition reports will include a survey, photos and/or video of each road. This will form the basis of any assessment of damage to roads that may occur as a result of construction works. If damage that is attributable to the CTP Works occurs, the damage will be rectified so as to restore the road to at least the condition it was before construction commenced as identified in the Road Dilapidation survey.

Leading up to construction work completion, AFJV will undertake a dilapidation survey and review the condition of the surveyed roads compared to pre-construction condition report. If damage that is attributable to the CTP Works occurs, the damage will be rectified as to restore the road to at least the condition it was before construction commenced as identified in the pre-construction Road Dilapidation survey.

Regular inspections of local roads will be completed throughout the construction period and any damage will be rectified within a reasonable period.

3.4 SITE SECURITY AND CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

As part of planning for and installing traffic management requirements, CPTED requirements are considered, with appropriate measures being identified and installed. The CPTED NSW Guidelines and IS Technical Manual for Hea 2 Crime Prevention are both referenced during the planning and installation of traffic management measures.

This section outlines the four CPTED principles and how the planning and installation of temporary traffic management measures has considered each of the principles.

3.4.10 SURVEILLANCE

CPTED NSW Guidelines: *“The attractiveness of crime targets can be reduced by providing opportunities for effective surveillance, both natural and technical”*

3.4.10.1 NATURAL SURVEILLANCE

The project involves completing bulk excavation and associated construction works in locations that will become the future Sydney Metro stations. As a resulting affect, most project construction sites are in highly populated areas resulting in high levels of natural surveillance, through nearby residential, recreational and commercial establishments, and high public traffic and pedestrian activity.

At each construction site where a site entry or exit exists and needs to remain open for the movement of heavy vehicles, ‘gate keepers’ are tasked with managing the safe access & egress from site. These gate keepers ensure unauthorised entry does not occur, these workers are also publicly visible lowering the likelihood of criminal behaviour in the areas

3.4.10.2 TECHNICAL SURVEILLANCE

In addition to natural surveillance, existing street lighting exists at all project construction sites providing good visual surveillance during times where low levels of natural light exists.

Depending on the nature of any temporary construction works or diversions, requirements for additional lighting is assessed on a case of case basis, to ensure the safety of workers and the public.

Each project construction site team has installed temporary CCTV cameras in strategic locations across their respective sites, to further deter criminal activity such as unauthorised access to the construction sites.

3.4.11 ACCESS CONTROL

CPTED NSW Guidelines: *“Physical and symbolic barriers can be used to attract, channel or restrict the movement of people They minimise opportunities for crime and increase the effort required to commit crime.”*

All project construction sites are boarded by temporary hoarding or other fencing as required The design and installation of hoarding and fencing is specific for the purpose of ensuring unauthorised entry is impractical for potential criminal activity or other unauthorised access

Signage is displayed at site entry locations clearly identifying who can enter, to avoid any potential confusion or uncertainty

Any traffic or pedestrians diversions are signed appropriately in accordance with the TCAWS to further reinforce access control around the sites.

3.4.12 TERRITORIAL REINFORCEMENT

CPTED NSW Guidelines: *“Community ownership of public space sends positive signals. People often feel comfortable in, and are more likely to visit, places which feel owned and cared for Well used places also reduce opportunities for crime and increase risk to criminals ”*

Hoarding and fencing is installed, bordering the project construction sites, hoarding is painted to Sydney Metro requirements with community information numbers displayed Fencing is covered with Sydney Metro shade cloth also with community information numbers displayed. This provides a clean, clear and consistent visual experience for the public.

3.4.13 SPACE MANAGEMENT

CPTED NSW Guidelines: *“Popular public space is often attractive, well maintained and well used space. Linked to the principle of territorial reinforcement, space management ensures that space is appropriately utilised and well cared for.”*

Similar to Territorial Reinforcement and Natural Surveillance, the project construction sites are boarded with hoarding or fencing and signage clearly indicating the intended use of space. At each construction site where a site entry or exit exists and needs to remain open for the movement of heavy vehicles, ‘gate keepers’ are tasked with managing the safe access & egress from site and ensure unauthorised entry does not occur, this is conducted through clear communication and signage.

Hoarding, barriers and signs are checked regularly, with any identified graffiti or other inadequate conditions being rectified as soon as practical.

3.5 TRAFFIC SAFETY

3.5.1 DIRECTIONAL, INFORMATION AND REGULATORY SIGN POSTING

Installation of directional, information and regulatory signposting accompanies any changes to the existing road networks.

AFJV is responsible to design, supply, install and maintain all direction, information, regulatory signs and structures required for the project, including any modifications required to existing signs and sign structures. The design, manufacture and installation of the signs will be in accordance with the TfNSW standards, TCAWS and Australian Standards AS1742 Manual for Traffic Control Devices.

All signposting plans and drawings are prepared in accordance with the TfNSW Signs Database and comply with sign design principles contained in the AS1742 Manual for Traffic Control Devices and the CTMF. Where non standard custom signage is proposed, these signs are included within the traffic staging plans and site specific CTMPs for review and approval are part of the CTMP approval process.

Temporary works designs, are issued to TfNSW, SM and the independent certifier for approval. The certifier gives approval once TfNSW have signed off any comments they have on the design.

In addition to the sign posting requirements stipulated in TCAWS Manual and the Australian Standards, AFJV applies the following sign posting parameters:

- The minimum size of signs used on the Project will be Type A, larger signs will need to be used for higher speed limit areas.
- Consideration will be given to the installation of short term signs on permanent posts with secure covers, where works occur in the same location on a regular basis.
- AFJV will provide sign designs to TfNSW to review and approve in sufficient time to allow for manufacture and installation of custom signs, to meet project requirements.
- AFJV will conduct detailed reviews of all short and long term signage with the aim to provide a clear and concise message to approaching road users, without creating sign clutter.

All signposting changes are to be detailed in the CTMP, Traffic Staging Plans and TGSs.

AFJV is responsible to:

- Integrate the signage changes into the existing road network.
- Liaise with authorities and agencies to determine issues, opportunities and constraints during the development of any directional signposting changes.

- Submit details of any installation or changes to signposting during the works within the relevant plans. This includes scaled plans showing the locations of existing and new or modified signposting in all directions
- Install and cover all new directional signs prior to opening of a new construction stage
- Cover or change existing signposting that shows incorrect information during or immediately following the introduction of the new traffic arrangements
- Remove any signs that are superseded as a consequence of the works as noted in the relevant plans
- Reinstate all directional signposting at the completion of the works
- Conduct traffic inspections of signage layouts

Project branding and signage will be installed as agreed with the road authority including Project identification signs to acknowledge Government initiatives. Other signage to be installed includes the numerical identification of structures as agreed with the road authority/asset manager.

3.5.2 SPEED ZONES

Long term variations to the posted speed limits may be required as part of the traffic management strategy at times where construction activity is taking place or the road alignment is affected and warrants a general speed reduction. Long term speed reductions would be considered during the CTMP planning stage and incorporated into the site specific CTMPs. Signage, barriers and speed limits will be reviewed and modified as required subject to approval.

Short term reductions to the posted speed limits may also be required to provide a safe working environment for workers and allow the public to navigate changed traffic conditions safely. The need to reduce speed will be assessed for each individual occasion during the TGS planning stage of works.

All speed reductions will only be installed inline with the relevant plans and with an approved ROL and Speed Zone Authorisation (SZA) in place, in accordance with the TCAWS.

To reinforce reduced speed zones, AFJV in conjunction with TfNSW and TMC will, conduct regular reviews of the speed limit signage. If deemed necessary, consultation with the NSW Police representative will be made to obtain enhanced enforcement of the roadwork speed zones. This is particularly important during working hours.

Guidance for applying for SZA is provided in the Road Occupancy Manual issued by TMC. The manual contains several explanatory notes and checklists. Applications are made as part of the ROL application process.

The following strategies may be implemented to enforce speed limits:

- Utilisation of traffic calming devices
- Use of Speed Advisory Boards or 'speed check' speed advisory signs which records and flashes the speed a driver is travelling at, then switches to 'Slow Down' if the driver has exceeded the speed limit
- If required, involve police presence to enforce speed as per TDT 2009/07 (Technical Direction: Police Speed Enforcement or Presence on TfNSW Work Sites). The Traffic Manager should contact the Police Traffic Coordinator at an early stage of the Project. Enforcement might include marked police vehicles patrolling the construction site and/or the inclusion of a stationary marked police vehicle with an operating flashing blue light positioned within the construction area or, provision of police enforcement facilities.

- Use of portable Variable Message Signs to enhance advanced warning sign posting and provide changed traffic condition information to road users

3.5.3 DELINEATION

Delineation of any road layout changes will comply with the requirements of TfNSW TCAWS and other standards and will be detailed in the relevant plans

Line marking will be installed in accordance with the relevant Codes and Standards, including TfNSW Guide to “Delineation Manual” 2014, the TCAWS and AS 1742 Manual of uniform control devices

Where new asphaltting or concrete pavements have been completed, final line marking normally cannot be completed for a number of days or weeks. Until the prescribed time has been reached and final line marking installed, a range of temporary delineation methods will be implemented, this may include:

- Line marking tapes
- Stick & Stomps
- Temporary waterborne line marking

3.5.4 TRAFFIC SIGNALS

Traffic signals design will comply with TfNSW specifications. AFJV uses the permanent signal arrangement during construction as much as possible, where applicable. The design and approval requirements for traffic signals are included within AFJV procedure for CTMP, TGS and ROL development.

Traffic Control Signal (TCS) plans are prepared to comply with the requirements specified in TfNSW Traffic Signal Design Section 3 Design Process (2016) and Section 4 Plan Requirement (2008) The TCS is to show the proposed intersection layout, traffic signal phasings, location and type of lanterns, posts, detector specification and signal group phase chart. A modified TCS plan will also be prepared if there are any changes to an existing TCS or any site works located within close proximity of an existing TCS.

It is noted that TCS plans will be included in site-specific CTMPs for information only The approval of the site-specific CTMP does not constitute in the approval of the TCS design

A cabling installation plan will also be prepared, where required, to detail the installation of underground cable ducting for the operation of traffic signals.

The TCS and cabling plans will be prepared by a qualified traffic signal designer for submission to TfNSW Parramatta traffic signal team to review and promptly comment in order that amendments for implementation and safe traffic control can be applied.

3.5.5 MANAGING PEDESTRIANS

AFJV will implement necessary controls to direct pedestrians, to and from bus stops, rail stations, car parks, businesses, homes and any directly affected schools during construction AFJV recognises the importance of giving consideration to all road users. AFJV has identified pedestrian needs by considering:

- Impact of construction works on existing footpaths
- Number of pedestrians
- Type of pedestrian activity: office, retail, residential, school or recreational

- Origin and destination points of the pedestrians and their desired travel path
- Existing needs of vulnerable pedestrians, such as young children, the elderly, vision impaired, disabled people and people with prams
- Proximity of pedestrian generation developments, such as schools, bus stops and train stations
- Requirements of the CTMF

Consideration has been given to diversion of pedestrians in the site-specific CTMP, with designated paths and pedestrian crossing facilities where the existing travel routes are not available. Safety barriers will be installed to segregate works from pedestrian paths and/or pedestrians from traffic flows, where required. All barriers will be maintained and appropriately secured while in use.

AFJV will advise the TCG and the relevant road authority (local council, SOPA and/or TfNSW), prior to adjusting any existing pedestrian crossing facility or the implementation of any new temporary facility. Approval from relevant road authority will be required prior to adjusting any existing pedestrian facility.

AFJV will maintain current formal and informal pedestrian connectivity and functionality provided within and directly adjacent the Project. Pedestrian facilities will be designed to meet relevant guidelines including the Project area by preserving and/or upgrading existing connections, or providing upgraded alternative connections.

AFJV will manage the pedestrian desire lines with temporary footpaths that comply with the requirements of Austroads Guide to Road Design Part 6A: Pedestrians and Cycle Paths, TCAWS and AS 1742.3. Prior to work commencing on State and local roads, where pedestrian access may be affected, alternate pedestrian access routes will be signed and delineated in accordance with safety requirements.

Alternate routes will aim to minimise inconvenience to pedestrians with the primary goal of maintaining clear space between pedestrians and active work areas. This will be addressed in site specific CTMPs prior to the construction activities commencing.

The following measures will be implemented when providing alternate pedestrian routes to minimise impacts on mobility impaired pedestrians:

- Clearly defined temporary footpath arrangements by using appropriate signage
- Sufficient space for wheelchair access
- Smooth, even surface on all temporary footpaths and crossings
- Regular inspections to maintain footpaths free of trip hazards
- Minimisation of grades for wheelchair use.

3.5.6 MANAGING CYCLISTS

Access for cyclists will be maintained during the construction works. The specific controls implemented at each site location are dependent on traffic volume and cyclists at each affected location. The site-specific CTMP will assess impacts on cyclist.

AFJV will maintain the existing cycling facilities where possible during the construction works. Haulage routes that traverse existing on road bicycle routes only occur around the Sydney Olympic Park site as follows where relevant signs and line marking are provided:

- Australia Avenue (525m)
- Sarah Durack Avenue (435m)

It is however noted that the bike map provided in the Canada Bay and Sydney Olympic Park websites indicates additional roads around the site as designated on road bicycle routes or bike safari circuits but relevant signs and line marking are not provided on these roads

Cyclist access to the existing on road cycle routes will be maintained where possible. Provision of a “Watch for Cyclist” warning sign will be provided at these locations, as required.

Where existing cyclist facilities (e.g. bicycle parking) will be temporarily unavailable to facilitate construction activities, suitable replacement facilities will be provided for this duration.

3 5 7 PUBLIC AWARENESS AND EDUCATION

The public’s understanding of construction activities and the associated traffic management is likely to result in higher levels of compliance and safe movements from members of the public. For this reason, a range of measures are considered and where appropriate installed across the project. These measures include:

- The installation of truck aware decals on footpaths adjacent to heavy vehicle site access and egress locations.
- The installation of ‘LOOK OUT BEFORE YOU STEP OUT’ decals on footpaths at strategic locations
- Installation of other custom signage across the project to provide information and direction to the public.
- Holding open days where the sites are secured and made safe for members of the public to visit.
- Various community consultation and notifications.

3.5.8 EMERGENCY MANAGEMENT

An emergency management plan has been developed with incident response procedures detailing appropriate protocols to manage different emergencies or unplanned incidents.

AFJV will notify TfNSW’s representative of the occurrence of the incident and record the knowledge of the facts within the prescribe timeframes of the emergency management plan.

In the event of a traffic related incident, coordination would be carried out with the Transport Coordination and/or the Transport Management Centre’s Operations Manager

Where emergency traffic management is required, AFJV will use an appropriate standard plan from TCAWS, adjusting it as needed to suit conditions of each construction site

Furthermore, in case of unplanned incidents such as road traffic incidents within any of the construction sites, construction trucks will be re-routed to other sites with spare capacity, or will be temporarily halted until further instructions are provided AFJV will record its knowledge of the facts and photograph the approach to the accident site including the location of all safety devices and signs as soon as possible after the accident. A report with this information will be forwarded to the Sydney Metro and TfNSW representative within 2 days of the occurrence of the accident

If required AFJV will engage the service of a towing company and have light and heavy vehicle tow trucks to manage vehicle breakdowns associated with the project

3.6 HEAVY VEHICLES AND CHAIN OF RESPONSIBILITY

3.6.9 HEAVY VEHICLE HAULAGE ROUTES

Heavy vehicle haulage routes will be consistent with those identified in the EIS, wherever practical. Extension of routes primarily using nearby arterial roads and motorways and on occasion Local roads, maybe required.

Additional routes are developed in consultation with TfNSW and relevant local councils and Authorities, any additional routes approved for use will be detailed within the relevant site specific CTMPs.

A copy of the current heavy vehicle haul routes that are expected to be used are included within section 4.5 of this overarching CTMP, as routes may change, the site specific CTMP always takes precedence.

3.6.10 COVER CONSTRUCTION VEHICLE LOADS

The load of all construction vehicles will be covered to ensure loss of fuels, lubricants, load or other substances, whether in the form of dust, liquids, solids or otherwise, will be prevented. Further detail on this will be managed through the Chain of Responsibility management plan.

3.6.11 WHEEL WASH FACILITIES AND MUD TRACKING

To mitigate the risks of mud/dirt tracking at each site a range of measures will be implemented, including:

- Vehicle movements in areas that're not hard stand, will be restricted to essential movements only. and where possible during and immediately after rain events restricted entirely.
- Installation of cattle grides
- Use of street sweepers
- Construction of hard stand areas wherever possible to limit the need for construction vehicles to drive through dirt or mud.
- Each construction sites management team assess installation of wheel wash facilities

3.6.12 LINKSITE (LS)

AFJV utilises LinkSite (LS) which is an in-house company developed program designed to track and analyse construction vehicle movement in and around projects. LS will be used for spoil haulage trucks and has the following capabilities:

- Induction heavy vehicle checks, plant pre-start inspections and fatigue management
- GPS tracking of construction vehicles around and between sites, and
- Data collection and analysis.

LS assists driver compliance through digital induction form as they begin work. This includes a plant pre-start form and fatigue management questionnaire. Operator hours are automatically logged and communication capability can be used to instruct operators to take their allocated breaks.

LS is capable of analysing real-time weather and traffic data, allowing AFJV to manage its fleets more efficiently by predicting arrival times and communicate directly with workers. For example, an influx of trucks arriving on site can be directed to take an alternative route or park in a designated marshalling area.

The GPS tracking capability also enables AFJV to determine the speed and location of the fleet, automatically generating heat maps for vehicle movements. Fleet movement is better managed

around site by determining pinch points and adjusted accordingly. Furthermore, each load can be individually traced back to the location received and laid

When moving between the construction sites, LS analyses construction vehicle movements to help better understand driver behaviour. Alerts can be set up to notify the Traffic Manager when a vehicle is speeding or using undesignated roads.

In response to Concept and Stage 1 Conditions of Approval D83, records of monitoring be made available electronically to the Planning Secretary and the EPA upon request for a period of no less than one (1) year following the completion of construction

3.6.13 CHAIN OF RESPONSIBILITY

Heavy vehicle safety and vehicle specific safety requirements will be covered in the Chain of Responsibility Management Plan and Heavy Vehicle Minimum Requirement checklist (outside of this document).

3.7 TRAFFIC (ROAD USER) DELAY MANAGEMENT

3.7.1 MINIMISING IMPACT AND DISRUPTION

AFJV's key traffic management approach is to plan activities to minimise:

- Disruption to the existing road/path networks and traffic patterns
- Impact on traffic during peak periods
- Impact on public transport operations
- Impact on the local community.

Accordingly, AFJV's strategy for traffic management includes:

- Designing to minimise interaction with road users
- Maintaining existing capacity, where feasible
- Minimising road and path closures or managing access through, where safe to do so
- Coordinating ROLs including maintenance activities
- Providing resources to allow clearing of minor incidents
- Minimising the amount of temporary works
- Undertaking detailed site investigations before occupying the roadway.

AFJV aim to achieve the following with the implementation of the above strategy:

- Road user delays are minimised during construction of the Project
- Throughout the detailed design process due consideration is given to minimising road user delays during construction operation
- Traffic control devices and roadside furniture are designed to minimise potential road occupancy and road user delays in future maintenance activities

3.7.2 SPECIAL EVENTS

Special / major events are generally categorised based on the potential disruption to traffic and transport systems, and the disruption to the non-event community. The four broad categories are generally as follows:

- Major is an event that impacts major traffic and transport systems and there is significant disruption to non event community. For example: an event that affects a principal transport route, or one that reduces the capacity of the main highway through a country town.
- Minor is an event that impacts local traffic and transport systems and there is low scale disruption to the non-event community. For example: an event that blocks off the main street of a town or shopping centre but does not impact a principal transport route or a highway
- Local is an event with minimal impact on roads and negligible impact on the non-event community. For example: an on street neighbourhood Christmas party.
- Police Controlled is an event that is conducted entirely under Police control (but is not a protest or demonstration). For example: a small march conducted with a Police escort.

Special consideration and traffic planning will be undertaken for each of the station construction sites to address road user needs during scheduled special events. Where possible the site-specific CTMPs identify special events that occur in the vicinity of the worksite, incorporating special events into the construction program and detail responses and contingencies for each site

Consultation will be undertaken with TfNSW, SM, SOPA and local councils, public transport providers and event organisers to allow specific traffic measures to be devised and implemented. AFJV will identify scheduled Class 1 and Class 2 events that occur around the construction sites and the impact that these events may have on the works.

3.7.3 INTEGRATION WITH OTHER (ADJACENT) PROJECT AND WORKS

AFJV will plan works to reduce the impact on the road network. The Bays construction site is located adjacent to the construction site of the WestConnex Rozelle Interchange (Stage 3B) that is anticipated to be complete by 2023. These cumulative projects may impact the road network in a manner outside of AFJV's control. AFJV will liaise with the representatives of these construction projects to reduce the cumulative impact wherever possible, including the Western Harbour Tunnel project.

Construction of the station box at The Bays construction site will require relocation of an existing access road adjoining Port Access Road that is currently being used by the WestConnex Stage 3B haulage vehicles to access Rozelle Rail Yard. The road relocation will be undertaken during the enabling works stage.

The relocated access road will provide access to the Rozelle Rail Yard, and facilitate access to the Sydney Metro West project's light vehicle car park and a spoil loading area south of the station box. A roundabout will be constructed on the relocated access road to accommodate the U turn movement of the spoil trucks leaving the site to head towards Port Access Road.

3.7.4 TRAFFIC IMPACT OF CONSTRUCTION ACTIVITIES

The site-specific CTMPs aim to provide a safe environment for road users, pedestrians, cyclists and workers. Any impact on road users and asset operation and maintenance will be kept to a minimum. Planning and scheduling works are being undertaken to minimise impacts on road users during the commuter peak periods.

Enabling works are to establish the station construction sites and precast facility site. The works involve hoarding, demolition of structures and buildings, construction of access and exit driveways and new traffic facilities, such as installation of new TCS, new pedestrian crossing facilities, one way conversion on local roads and on-street parking removal.

Site-specific CTMPs will be prepared to assess the following traffic and transport impacts associated with the proposed construction activities:

- Network capacity analysis (where relevant)
- Public transport routes
- Pedestrian and cyclist accessibility
- Local access
- Emergency vehicle access
- Waste collection vehicle access
- Special events

TGSs will be developed to support the works including consultation with TfNSW, CJP, SM, Councils, SOPA and Port Authority. TGSs show the proposed road worksite arrangements to protect the safety of road users as well as workers, in accordance with AS1742.3, TCAWS and CTMF. Consideration will be given to the use of signage, including Variable Message Signage (VMS) to inform motorists, pedestrians and cyclists of changes, delays and diversions where necessary.

Where existing parking is removed to facilitate construction activities, consultation will occur with the relevant local council to investigate opportunities to provide alternative parking facilities, where possible.

TfNSW will be provided with any details to traffic incident (crashes) that occurs within proximity of the worksite within two days of the incident.

3.8 EMERGENCY SERVICES OPERATIONS

Emergency services will be informed of the defined routes and consulted and advised of any changes in the defined routes. Priority and a safe environment will be provided to emergency vehicles to enable efficient and safe travel through construction areas. The CTMP includes measures to keep emergency services informed of the progress of construction works.

3.9 ACCESS MANAGEMENT

3.9.1 PUBLIC TRANSPORT OPERATIONS

Access to public transport facilities will be maintained where possible. If changes are made to public transport operations, walking distance to public transport facilities and sensitive receivers such as schools, nursing homes and churches will be minimised as much as practicable.

AFJV aim to minimise disruption to the current level of bus services, with an emphasis on patron connectivity and scheduling reliability. Local bus services will be consulted during the construction period to minimise disruption to services via the TTLG meetings.

The need for bus stop relocation will be minimised, but if required, replacement sites will be identified within reasonable walking distance (less than 400m) from the existing bus stop and bus stop capacity will be maintained as per the existing location.

Any relocation of bus stops and kiss and ride facilities will be carried out in consultation with TfNSW including Transport Coordination (for relevant locations), the relevant local council and bus operators. Wayfinding and customer information will be provided to notify customers of relocated bus stops.

Any relocation of taxi ranks will be carried out in consultation with TfNSW, the relevant local council and taxi operators. Wayfinding and customer information will be provided to notify customers of relocated taxi ranks.

Long term changes to bus stops or bus operations will be detailed in site specific CTMPs. Short term changes (e.g. one work shift) to bus stop will be coordinated with CJP, and bus operators in accordance with CJP Bus Disruption Process

3.9.2 PROPERTY ACCESS

Site-specific CTMPs are being developed with the aim of maintaining access for local businesses and residential property access. Where required, alternative pedestrian and vehicular access and parking arrangements will be developed in consultation with affected properties.

All proposed changes to existing access arrangements will be discussed with residents and/or businesses prior to the commencement of works. Property access will be reinstated within one month of the work that physically affected the access is completed or in any other timeframe agreed with the landowner or occupier

3.9.3 MAINTAINING ACCESS FOR LOCAL COUNCILS, LOCAL BUSINESSES AND PROPERTY OWNERS ACCESS

Local Council, utility agencies (water, gas, electricity and telecommunications), bus shelter owners and billboard owners will be permitted to access their infrastructure on site, following consultation with the Project Director and after completing a Project Induction

Access to utilities and properties will be maintained during construction, where practicable, unless otherwise agreed with the relevant utility owner, landowner or occupier.

Site-specific CTMPs aim to maintain access for local businesses and residential property access. Where required, alternative pedestrian and vehicular access and parking arrangements would be developed in consultation with affected properties.

3.9.4 SITE ACCESS FOR PERSONNEL AND CONSTRUCTION TRAFFIC

To provide safe access and exit to the work site, AFJV will:

- Provide new construction access and exit driveways that are designed to minimise impacts so far as practicable, on existing intersections, traffic facilities or traffic generating developments
- Install access and exit driveways that are visible and have adequate sight distance for vehicles entering and exiting the site
- Design intersection configuration to accommodate traffic generated by construction
- Where practicable, separate AFJV workers from vehicle movements at site access and exit driveways
- Install security fences and gates at locations which maintain clear sight lines and enable vehicles to park clear of adjacent travel lanes
- Design access and exit driveways that are visible to approaching traffic and signposted accordingly
- Provide induction to frequent drivers to understand route constraints, safety and environmental considerations such as sharing the road safely with other road users and limiting the use of compression braking.
- Consider pedestrian management at site vehicle entry and exit driveway in highly pedestrianised area. Pedestrian gates will be considered at site vehicle entry and exit driveway

3 10 COMMUNICATION, CONSULTATION & MEETINGS

3 10 1 COMMUNITY CONSULTATION

AFJV undertakes consultation and communication with stakeholders about upcoming construction works and traffic arrangements that have the potential to cause impact. Example includes community forums (began in November 2021), letterbox drops, and door knocks, to businesses, residents within the surround of the proposed work.

Consultation will continue throughout the duration of AFJV works to meet all the project's community notification and consultation requirements

3.10.2 COMMUNITY INCIDENT REPORTING

AFJV maintain records of project related traffic accidents and incidents reported by the community. A community info line will be advertised along the construction site's interface with the road network. Any complaints received regarding traffic delays at work sites will be referred to the responsible personnel.

3.10.3 TRAFFIC AND TRANSPORT LIAISON GROUP (TTLG)

AFJV has been undertaking consultation and communication with stakeholders in regard to traffic management. The community will be notified of any current and upcoming construction works and traffic arrangement that have the potential to impact on stakeholders, community and businesses, prior to them occurring.

A Traffic and Transport Liaison Group (TTLG) will be established to discuss with stakeholders in relation to the proposed construction activities, upcoming works and related traffic and transport implications.

AFJV Traffic Manager is to participate in monthly TTLG meetings throughout the project, or at an agreed frequency. The Traffic Manager is a member of the TTLG and acts as the authorised representative for the Project in matters related to traffic and transport. The Traffic Manager provides the relevant information relating to the Project to the group.

AFJV consult with all relevant stakeholders prior to the commencement of any works. Potential stakeholders for this Project include:

- Sydney Metro
- Transport for NSW including:
 - Centre for Road and Maritime Safety
 - Metro Bus and Ferry Planning and Development
 - Greater Sydney Planning and Programs
- Freight Strategy and Planning
- Customer Journey Planning
- Sydney Trains
- Port Authority of NSW
- Infrastructure NSW
- Department of Planning, Industry and Environment
- NSW Police
- NSW Fire and Rescue

- NSW Ambulance Service
- Inner West Council
- City of Canada Bay Council
- Burwood Council
- Parramatta City Council
- Bus operators
- Sydney Olympic Park Authority
- Concord Oval

3.10.4 TRAFFIC COORDINATION GROUP (TCG)

Sydney Metro to establish Metro West wide TCG and the Traffic Manager will attend on behalf of AFJV and meet weekly, fortnightly or as agreed. TCG members typically include the Project Traffic Manager and representatives from TfNSW, SM, and where required Councils and SOPA.

The TCG is to discuss and agree on any and traffic and transport related issues associated with the Project. It is the TCG where decisions and changes are made on CTMPs, traffic management issues as they relate to the project work.

3.10.5 LOCAL TRAFFIC COMMITTEES (LTC)

As per section 6.11 of the CTMF, traffic management changes or proposed amendments to the public domain (e.g. changes in footpaths or access across reserves, and regulatory signposting on local roads) require submission to Council, including possible referral to the LTC. Road closures require a CTMP to be submitted to TfNSW (through Council) for approval prior to submission to LTC. Once approved by TfNSW it would then be listed for LTC meeting.

4. CONSTRUCTION – ASPECTS AND IMPACTS

This section identifies the traffic impacts of construction and how the construction team in conjunction with the Safety Director and the Traffic Manager will stage construction works.

It is AFJV's strategic objective to:

- Maximise safety for workers and road users by isolating work areas from traffic flow
- Minimise road user delays, avoid major activities during peak periods and avoid restrictions for transport operators

The effective planning of all construction activities is the key to achieving these objectives.

Some traffic impacts are unavoidable. During the construction stage, potential restrictions include:

- Pedestrian detours
- Bus stop relocation
- One-way conversion on local roads.

The Traffic Manager will monitor potential impacts during construction and, where required, will include the results in the relevant CTMP. Where CTMPs are not required, works will be undertaken

using long and short term TGSs. The assessment will assist in determining the need for specific mitigation measures

4.1 HOURS OF WORK

The current proposed hours of work are shown as follows for construction activities involving tunnelling and underground excavation, material delivery, spoil removal and construction of the station:

- The Bays construction site 24 hours per day and 7 days per week
- Five Dock construction site (east and west) 7am to 10pm Monday to Friday, 8am to 2pm Saturday. Tunnel activities 24 hours per day and 7 days per week
- Burwood North construction site (north and south) 7am to 6pm Monday to Friday, 8am to 2pm Saturday Tunnel activities 24 hours per day and 7 days per week
- North Strathfield construction site 7am to 6pm Monday to Friday, 8am to 2pm Saturday
- Sydney Olympic Park construction site 7am to 6pm Monday to Friday, 8am to 2pm Saturday
- Erskine Park Precast Facility site 24 hours per day and 7 days per week

Works outside of these hours will occur on occasion. These works will only occur following notification to residents, businesses and stakeholders. Where applicable times will be restricted to approved ROL and other relevant permits times only

4.2 CONSTRUCTION TRAFFIC GENERATION

Construction site access and egress points will be provided for the following traffic movements:

- Truck and trailer dogs for spoil removal from the site
- Semi trailers/ concrete agitators/ rigid trucks for construction material delivery
- Light vehicles associated with construction workforce and staff parking, where available.

Truck and trailer dogs would be used at most sites for spoil removal, while the design vehicle is anticipated to be a 10 wheeler or bogie at the following sites:

- Five Dock construction sites (east & west)
- Burwood North construction site (south)

Table 4 2 shows the proposed construction traffic volumes accurate at the date of drafting this 'Revision 06 OCTMP'. Heavy vehicle volumes are typically for the removal of spoil from site, additionally there maybe other day to day deliveries of materials and plant. It's noted that at times construction vehicle volumes may need to increase beyond what's tabled below, in this instance the site specific CTMPs will be updated to reflect the changes, where required.

Construction traffic volumes would be minimised during peak periods and church service times, where possible

TABLE 4.2: DAILY CONSTRUCTION TRAFFIC VOLUMES DURING PEAK ACTIVITY

Site	AM Peak Hour			PM Peak Hour		
	Heavy Vehicle	Light Vehicle	Total	Heavy Vehicle	Light Vehicle	Total
The Bays Station	24	12	36	24	60	84
Five Dock Station (East)	20	18	38	20	12	32
Five Dock Station (West)	28	14	42	28	12	40
Burwood North Station (North)	32	36	68	32	36	68
Burwood North Station (South)	8	12	20	8	8	16
North Strathfield Station	16	30	46	8	30	38
Sydney Olympic Park Station	38	40	78	38	46	84

The anticipated construction traffic volumes to and from the Erskine Park Precast Facility are shown as follows which are less than the traffic forecast documented in Sydney Metro West Erskine Park Precast Facility Review of Environment Factors (November 2020), as follows:

- Light vehicles: 60 vehicles arriving in the hour before the start of each day shift and night shift and 60 vehicles leaving in the hour after the end of each shift
- Heavy vehicles: 24 heavy vehicles (per facility) per hour between 7.00 am to 6.00 pm.

4.3 TRAFFIC MODELLING

Traffic modelling will be undertaken to assess the construction traffic impacts on the road network surrounding the construction sites, where required. If appropriate the modelling year will be 2023/2024 representing the worst case construction traffic scenario for spoil removal from the construction sites and delivery of construction material to the construction sites.

Traffic models will consider traffic volume data gathered from multiple sources and where appropriate the EIS Appendix G (Cumulative Assessment Methodology) which have considered a wide range of cumulative projects including the following:

- Large scale infrastructure projects (e.g. M4-M5 Link, Sydney Metro City & Southwest Chatswood to Sydenham, Western Harbour Tunnel and Warringah Freeway Upgrade)
- Glebe Island concrete batching plant and aggregate handling
- Glebe Island Multi User Facility
- Numerous mixed use, residential and commercial projects.

A temporary increase in traffic volumes is expected during the construction period as a result of commuting workers and management staff to site, spoil haulage to the site, and deliveries of equipment and materials to and from the work sites.

The number of construction traffic movements would be relatively low and be within the range of daily fluctuations in traffic volumes on the road network when compared to background traffic.

The construction traffic impacts will be assessed in traffic modelling to be developed to determine the relative difference between the "no construction" and "with construction" scenarios for the weekday AM and PM peak hours, for key intersections along the haulage routes in proximity of the sites.

Modelling results will be provided in site specific CTMPs to assess construction traffic impacts and compare with the EIS results. Suitable traffic management measures will be developed where required to minimise construction traffic impact on the road network, or to remain consistent with the EIS intersection Level of Service (LoS) results. Possible traffic management measures may include adjustment to traffic signal phasing and provision of additional capacity to maintain intersection LoS.

AFJV will continue to investigate measures that could minimise and mitigate the impact of the project's construction vehicle volumes on the road network. It will also assess the impact of workforce parking (light vehicles) within The Bays and develop measures that would minimise its impact to the surrounding network.

4.4 SPOIL DISPOSAL LOCATIONS

Given the considerable quantity of spoil material that will be generated by the Project, it is necessary to identify a number of potential spoil reuse and disposal locations.

Due to the number of concurrent major infrastructure projects under construction at the present time, spoil disposal sites will be secured and may change over time. AFJV is engaging with industry leaders continually to secure appropriate spoil disposal sites identified within and in addition to those documented in the EIS. The EIS indicate the following potential spoil reuse/disposal sites:

- Moorebank Intermodal Terminal and Freight Precinct
- Western Sydney Airport
- Port Kembla Outer Harbour land reclamation works
- Development and infrastructure projects in the Sydney metropolitan region
- Brick making businesses in the Sydney metropolitan region

EIS also notes that alternative spoil reuse locations may also be used depending on need at the time the spoil is generated.

The selection of approved spoil disposal sites is subject to consideration of the following:

- EIS nominated haulage routes
- Shortest cycle time for the return trip between the loading and unloading facilities
- Traffic congestion on the road network
- Hours of operation
- Type of material accepted, e.g. virgin excavated natural material only, oversize, wet material
- Conditions of spoil site
- Development Approval conditions of the disposal site such as approved DA number and allowable truck movements per day, hours of operation and the permitted type of material to be off loaded.
- Other than road transport, possible alternative transport methods may include barging and rail transport, subject to further investigation

4.5 SPOIL HAULAGE ROUTES

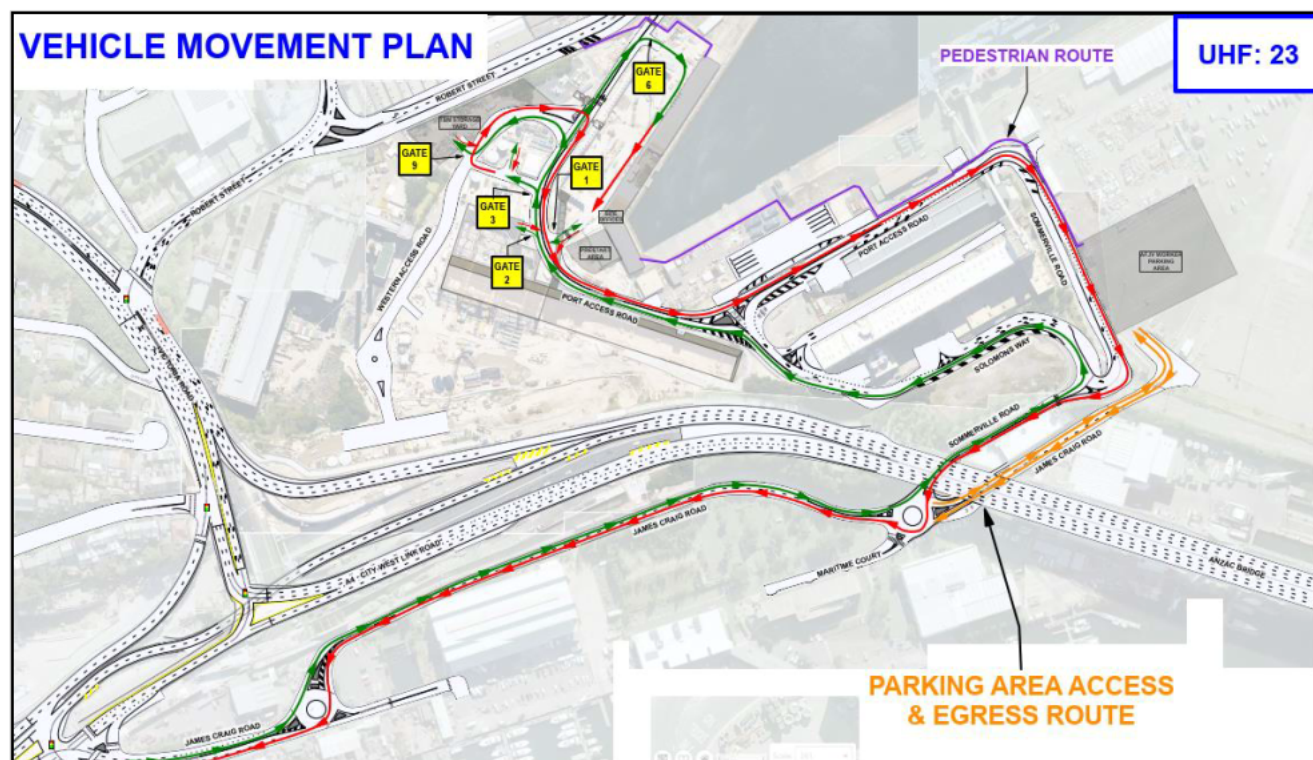
Haulage routes would be consistent with those identified in the EIS, with extension of the routes to/from the nearby arterial roads and motorways, for spoil haulage removal from the construction sites. Where required, additional routes have been developed in consultation with TfNSW, SOPA and relevant local councils, any additional routes approved for use will be detailed within the relevant site specific CTMPs. Any changes to haulage routes expected to be utilised long term, will also be included in this overarching CTMP, after approval of the new route has been obtained.

It is considered that potential locations for spoil disposal would be mostly in western Sydney, as such the intention is to maximise the use of the M4 Motorway, which will remove considerable heavy vehicular traffic from surface roads. The routes also considered disposal sites at locations other than western Sydney, and hence haulage routes to other directions have been considered in-line with SM's Construction Traffic Route Options

Excess spoil that cannot be reused within the Project would require off site reuse/disposal. A vast majority of uncontaminated spoil would be beneficially reused in accordance with the project spoil management plan.

The indicative spoil haulage routes are described in Figure 4.1 to Figure 4.8.

FIGURE 4.1: PROPOSED INBOUND AND OUTBOUND HAULAGE ROUTES TO THE BAYS CONSTRUCTION SITE



Construction vehicles (including light vehicles) will not use Robert Street, Rozelle to access The Bays metro station construction site, unless required in the event of an emergency or in association with the delivery of the Rozelle power supply from the Rozelle sub transmission substation to The Bays metro station construction site

FIGURE 4.2: PROPOSED HAULAGE ROUTES TO/FROM FIVE DOCK CONSTRUCTION SITE (EAST)

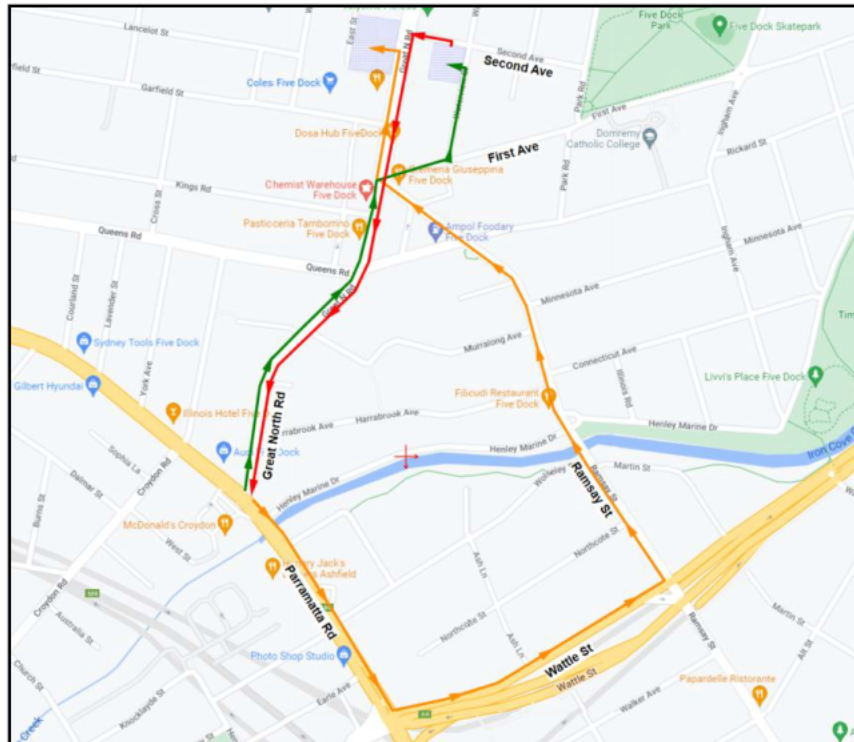
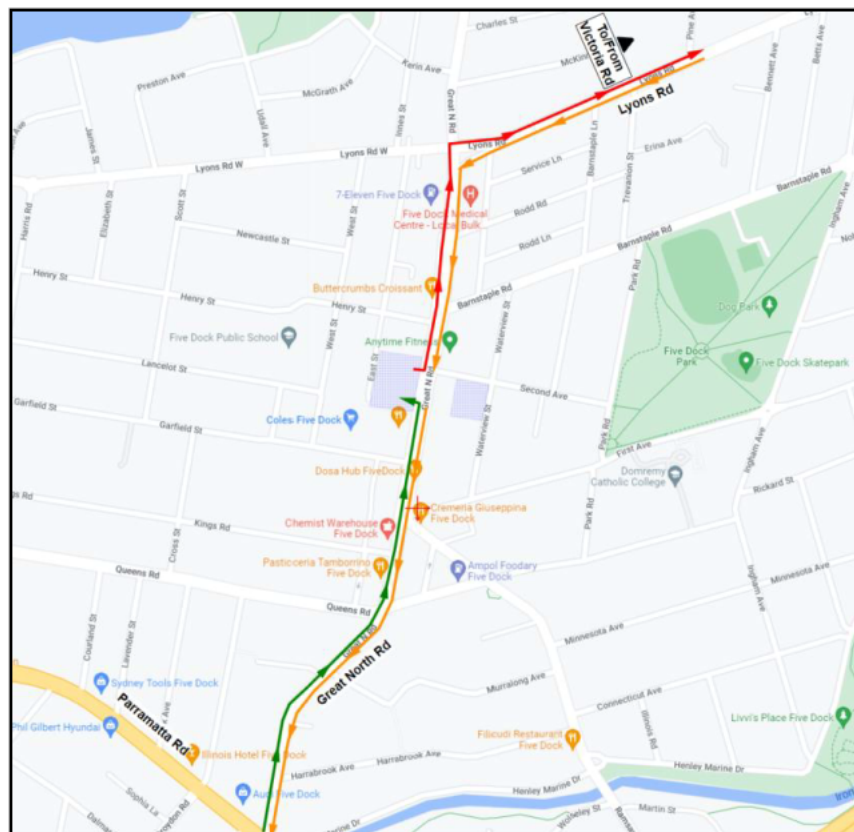


FIGURE 4.3: PROPOSED HAULAGE ROUTES TO/FROM FIVE DOCK CONSTRUCTION SITE (WEST)



Vehicles may enter the western shaft under traffic control assistance in either a forwards or backwards direction depending on origin and site. Once the site establishment is complete vehicles will primarily be entering and exiting in a forwards direction.

FIGURE 4.4: PROPOSED HAULAGE ROUTES TO/FROM BURWOOD NORTH CONSTRUCTION SITE (NORTH)

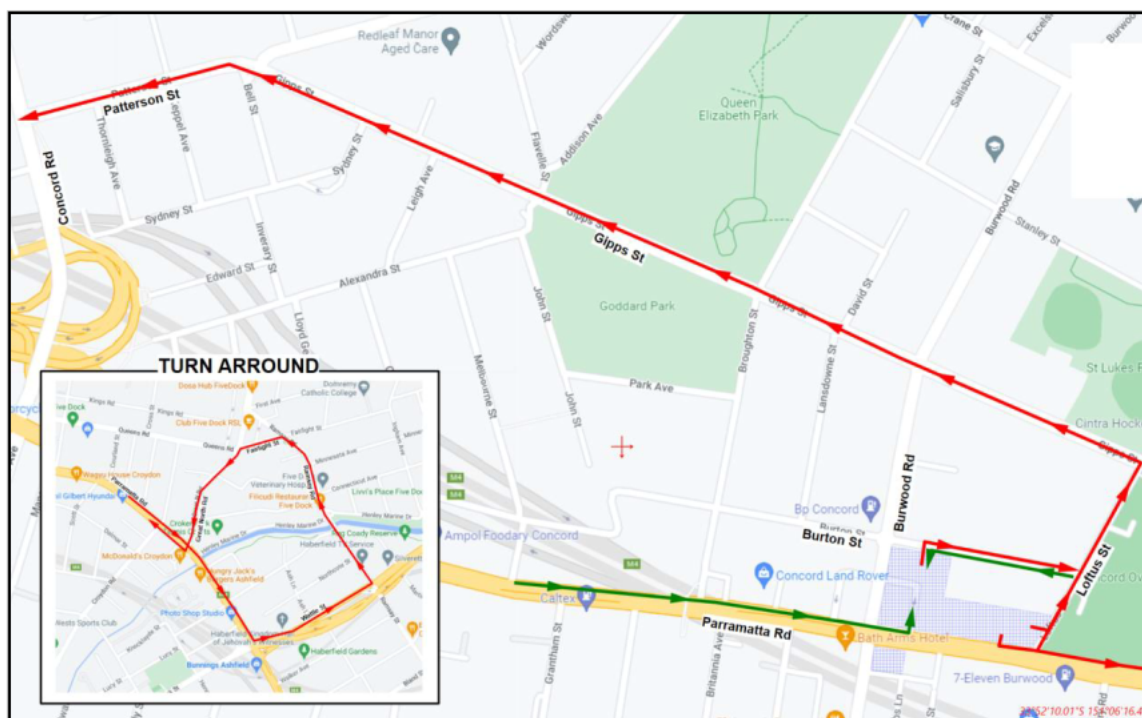


FIGURE 4.5: PROPOSED HAULAGE ROUTES TO/FROM BURWOOD NORTH CONSTRUCTION SITE (SOUTH)

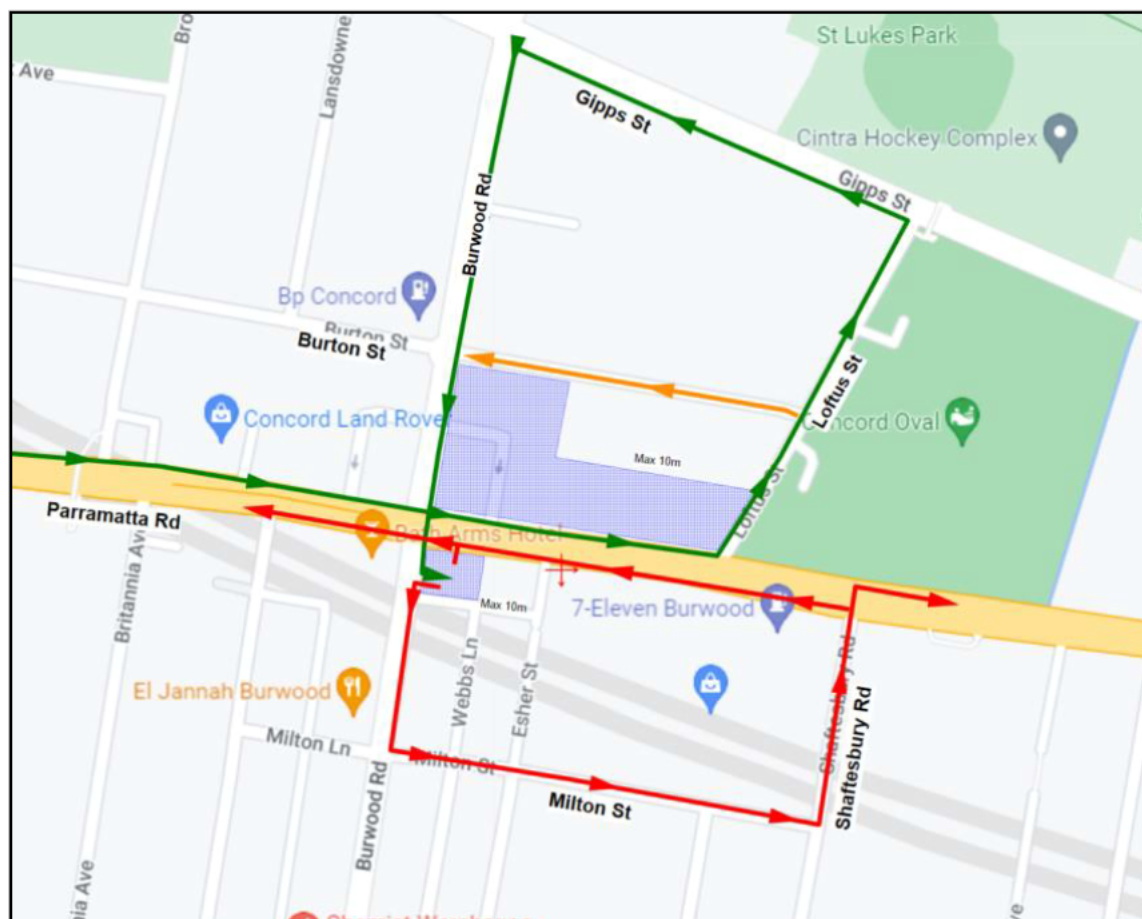


FIGURE 4.6: PROPOSED HAULAGE ROUTES TO/FROM NORTH STRATHFIELD CONSTRUCTION SITE

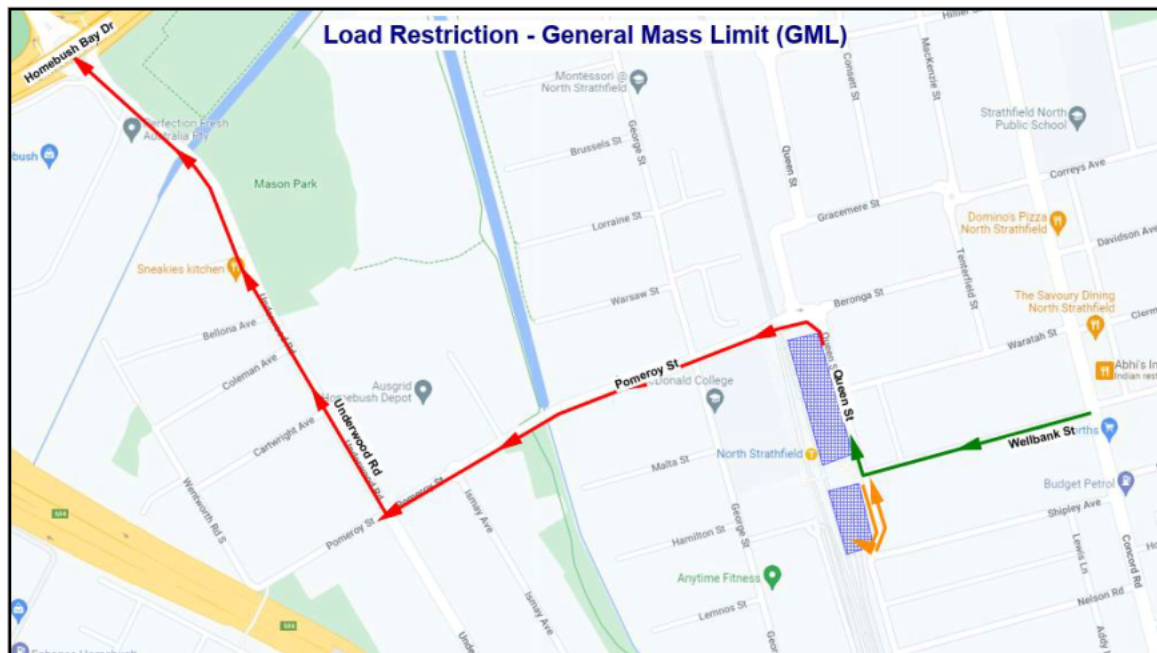


FIGURE 4.7: PROPOSED HAULAGE ROUTES TO/FROM SYDNEY OLYMPIC PARK CONSTRUCTION SITE

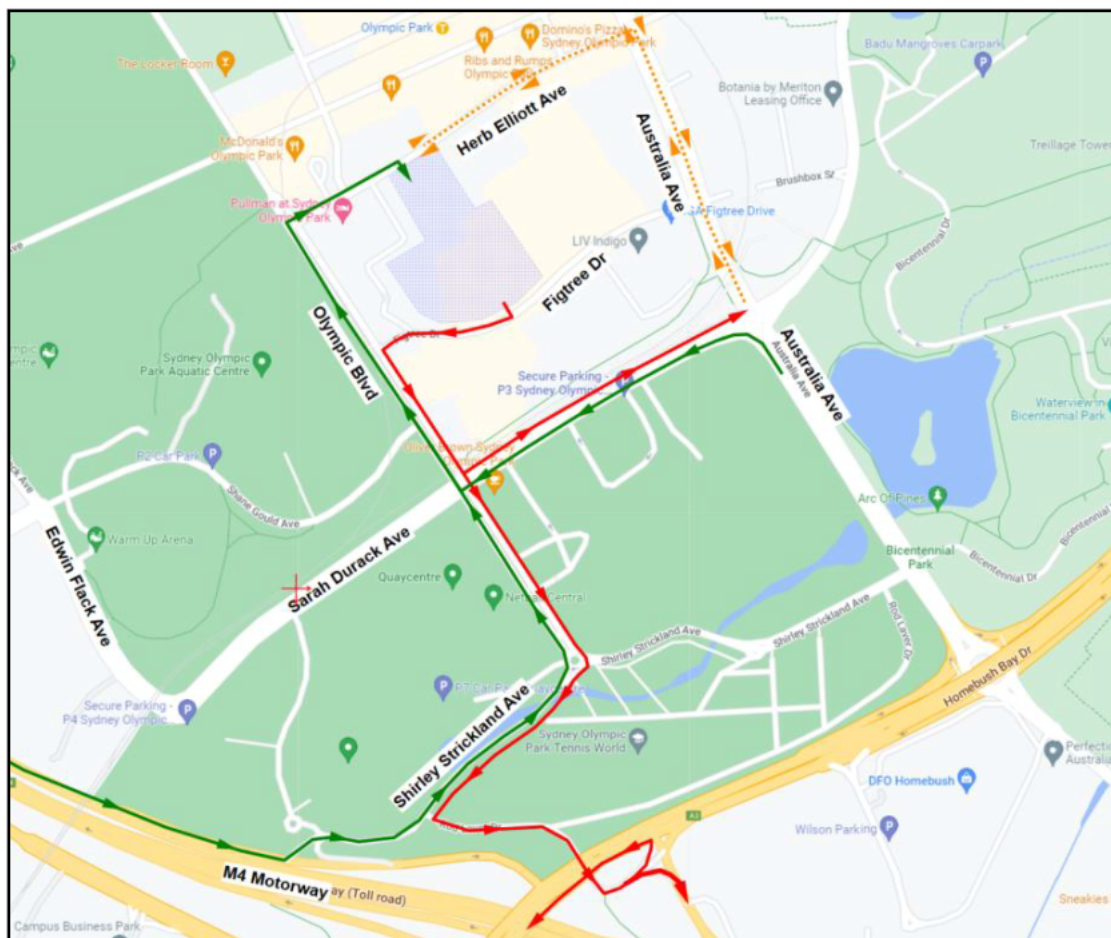
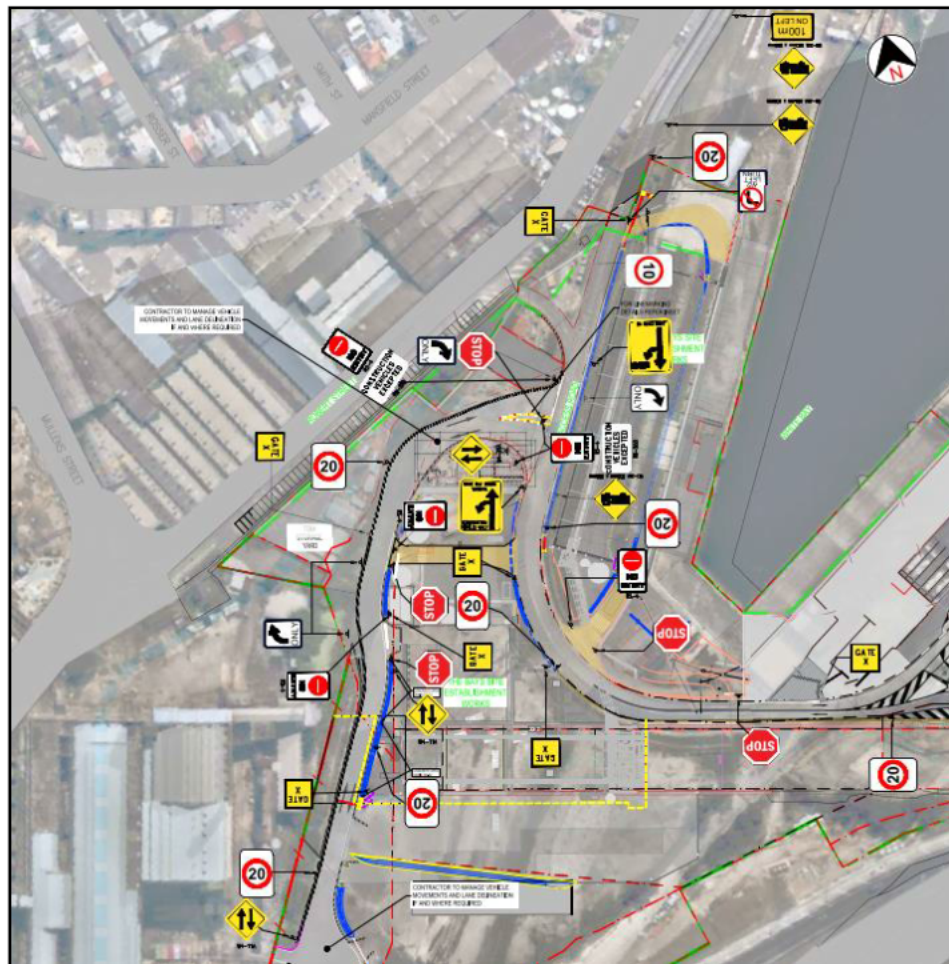


FIGURE 4.9: INDICATIVE LAYOUT OF THE BAYS CONSTRUCTION SITE



4.6.1.1 WORKS

- North/east of Port Access Road
 - Construction and operation of spoil/acoustic shed
 - Installation workforce carparks and elevated office
- South/west of Port Access Road
 - Excavation of station box
 - Construction of laydown area, water treatment plant, HV substation, water tank, grout plant and ventilation fans
- One pedestrian bridges to be constructed across Port Access Road to separate pedestrian and vehicle movements
- Provision of an overhead conveyor to transport spoil from station box to acoustic shed.
- Roadworks speed limit reduction to 20km/h
- Construction of an access driveway for heavy vehicles on the east side of Port Access Road, noting an existing driveway will be converted to an exit driveway for heavy vehicles
- Construction of a two-way light vehicle driveway on the east side of Port Access Road.

- Relocation of the Rozelle Rail Yard access to make way for the construction of the station box. The access will be relocated to the northern end of the Port Access Road frontage to enable access to the construction site of the WestConnex Rozelle Interchange. Port Access Road will continue to provide access to White Bay Cruise Terminal.
- Construction of a two-way light vehicle driveway on the west side of the relocated access road to/from the western car park.
- Construction of an additional southbound lane on the relocated access road to facilitate the left in movement towards spoil loading location south of station box.
- Construction of a roundabout on the relocated access road to facilitate the U turn movement of the egress construction to head back to Port Access Road

4.6.1.2 TRAFFIC MANAGEMENT

Table 4 3 provides a summary of traffic management requirements and impacts at The Bays construction site.

TABLE 4.3: SUMMARY OF TRAFFIC MANAGEMENT AT THE BAYS CONSTRUCTION SITE

	Description
Timing	October 2021 to December 2024
Temporary enabling works	<ul style="list-style-type: none"> ▪ Works has be carried out along Port Access Road to facilitate access and exit driveways for construction traffic. The driveways are located at: <ul style="list-style-type: none"> - Heavy vehicle access driveway at the northern end of the Port Access Road frontage Heavy vehicle exit driveway at the curve on Port Access Road which is currently an existing heavy vehicle driveway Light vehicle two-way driveway on a straight section of Port Access Road. Light vehicle two-way driveway on the west side the relocated access road - Heavy vehicle two-way driveway on the east side the relocated access road. ▪ Relocation of the existing WestConnex access road to further north to reduce conflict points with the proposed light vehicle driveway. ▪ Construction of a roundabout on the relocated access road. ▪ Construction of a footbridge across Port Access Road.
Impact on Traffic Flow	<ul style="list-style-type: none"> ▪ Minimal impact on traffic flow as construction heavy vehicles are to enter and exit the site via a left turn movement. ▪ Port Access Road will continue to provide access to White Bay Cruise Terminal

	<ul style="list-style-type: none"> 20km/h roadworks speed limit to improve sight distance at the exit driveway towards the north along Port Access Road.
Impact on Emergency Services	No impact on traffic movements, including emergency vehicle access around the site
Impact on Pedestrian and Cyclist Movements	<p>During site establishment, there will be a designated pedestrian crossing location on Port Access Road to allow workers to walk between the northern and southern work sites and Robert Street.</p> <p>Grade separation of pedestrian and vehicle movements ensuring a safe access for construction workers between the northern and southern sites via a footbridge across Port Access Road.</p> <p>No impact on cyclist movement as the Port Access Road provides no access to the public</p>
Impact on Public Transport Operations (including buses and trains)	No impact on public transport operations
Impact on TfNSW, Local Councils, Ports Authority and other stakeholder operations	No material impact on traffic flows is anticipated along Port Access Road for the duration of the project
Local businesses and property owners' access	Access to the surrounding businesses and properties will be maintained.
Impact on On Street Parking	No impact on street parking at The Bays precinct as on site parking will be provided. Currently, there is no provision of on street parking on Port Access Road.
Site Security	Fencing and other methods of securing the site will be carried out during site establishment works.
Consultation and Communication of Impact	<p>A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders. Early discussions with stakeholders were held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG.</p> <p>AFJV will communicate potential impacts to assist community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6.7.2 to 6.7.9.</p>
Special Events	The site-specific CTMP will consider traffic management measures during special events. Consultation with event organisers, SM, Port Authority and Inner West Council will occur to manage potential impacts. This may involve measures such as temporary adjustment to haul routes, working hours or potentially stopping works for the duration of the event.

4.6.2 FIVE DOCK CONSTRUCTION SITE (EAST)

The Five Dock construction site is located in the core of the Five Dock local centre off Great North Road. The Five Dock construction site comprises of two separate sites, an East site and a West site on either side of Great North Road. The East site is along Great North Road south of Second Avenue.

Figure 4 10 shows the indicative layout of the Five Dock construction site (East)

FIGURE 4.10: INDICATIVE LAYOUT OF FIVE DOCK CONSTRUCTION SITE (EAST)



4.6.2.1 WORKS

- Construction of access and exit driveways on Waterview Street and Second Avenue
- Conversion of Waterview Street to operate one way northbound between Waterview car park (as per EIS) and Second Avenue.
- Conversion of Second Avenue to operate one way westbound between Waterview Street and Great North Road (proposed change to improve road safety).
- Excavation of the shaft

4.6.2.2 TRAFFIC MANAGEMENT

Table 4 1 provides a summary of traffic management requirements and impacts at the Five Dock construction site (East)

TABLE 4.1: SUMMARY OF TRAFFIC MANAGEMENT AT THE FIVE DOCK CONSTRUCTION SITE (EAST)

	Description
Timing	February 2022 to November 2024
Temporary enabling works	<p>Works are being carried out along Second Avenue and Waterview Street to facilitate access and exit driveways for construction traffic. The driveways are located at:</p> <ul style="list-style-type: none"> ▪ Heavy vehicle access driveway on Waterview Street ▪ Heavy vehicle exit driveway on Second Avenue.
Impact on Traffic Flow	<p>Waterview Street converted to one-way northbound between north of Waterview carpark and Second Avenue.</p> <p>Second Avenue converted to one-way westbound between Waterview Avenue and Great North Road</p> <p>Minimal impact on traffic flow as construction heavy vehicles are to access and exit the site via a left turn movement. The largest construction vehicle would be a 10 wheeler concrete agitator and spoil trucks.</p> <p>An angled exit driveway will enable heavy vehicles to enter the site directly from the kerbside lane.</p>
Impact on Emergency Services	One way traffic movement on Waterview Street and Second Avenue
Impact on Pedestrian and Cyclist Movements	<p>Angled driveways increase the width of a driveway and thereby increase the exposure time of conflicting vehicle pedestrian movements. For safety reasons, Pavement decals and pedestrian concertina gate will be provided at each access and exit driveway to enhance the safety of pedestrians</p> <p>Cyclist access and safety will be managed as will general traffic along the frontage roads.</p>
Impact on Public Transport Operations (including buses and trains)	No impact on public transport operations
Impact on TfNSW, Local Council, and other stakeholder operations	Where required traffic modelling undertaken to assess the performance of the surrounding intersections to determine whether any mitigation measures will be required
Local businesses and property owners' access	Access for local businesses and property owners will be maintained, unless agreed otherwise
Impact on On Street Parking	<p>The creation of new driveways and one-way roads will result in the loss of on-street parking spaces along the following roads for the duration of project works:</p> <ul style="list-style-type: none"> ▪ 5 spaces along Waterview Street ▪ 4 spaces along Second Avenue <p>Given the existing parking demand in the affected road sections is mostly generated by the existing residential and retail premises that will be demolished, no parking displacement is proposed as the</p>

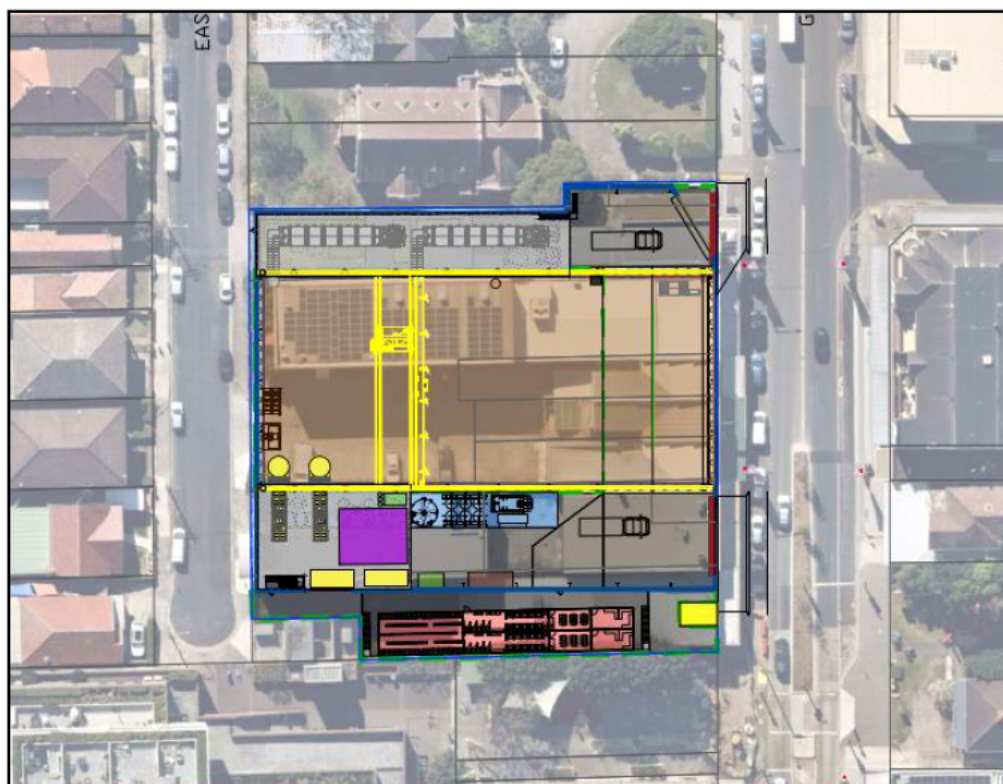
	parking demand associated with the adjacent properties will be reduced during construction period
Site Security	Fencing and other methods of securing the site will be carried out during site establishment works. The Australian Standard safety signage will be used to reinforce site security and safety requirements.
Consultation and Communication of Impact	A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders. Early discussions with stakeholders were held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG. AFJV will communicate potential impacts to assist community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6.7.2 to 6.7.9.
Special Events	It is noted that City of Canada Bay Council annually hold the Ferragosto Festival on Great North Road between Queens Road and Lyons Road. Consultation with council will occur on the lead-up to the events, site activities would normally be halted during these events.

4.6.3 FIVE DOCK CONSTRUCTION SITE (WEST)

The Five Dock construction site is located in the core of the Five Dock local centre off Great North Road. The Five Dock construction site comprises of two separate sites, an East site and a West site on either side of Great North Road. The West site is along Great North Road between Second Avenue and Fredrick Kelly Place.

Figure 4.11 shows the indicative layout of the Five Dock construction site (West).

FIGURE 4.11: INDICATIVE LAYOUT OF FIVE DOCK CONSTRUCTION SITE (WEST)



4.6.3.1 WORKS

- Construction of access and exit driveways on Great North Road
- Excavation of the station box

4.6.3.2 TRAFFIC MANAGEMENT

Table 4.1 provides a summary of traffic management requirements and impacts at the Five Dock construction site (West)

TABLE 4 2: SUMMARY OF TRAFFIC MANAGEMENT AT THE FIVE DOCK CONSTRUCTION SITE (WEST)

	Description
Timing	February 2022 to December 2024
Temporary enabling works	Works carried out along Great North Road to facilitate construction of driveways for construction traffic.
Impact on Traffic Flow	Intermittent traffic stops to facilitate the safe reversing movement of construction vehicles entering the site Great North Road will remain as a two-way road.
Impact on Emergency Services	No impact on traffic movements, including emergency vehicle access around the site.
Impact on Pedestrian and Cyclist Movements	Angled driveways increase the width of a driveway and thereby increase the exposure time of conflicting vehicle pedestrian movements For safety reasons, pavement decals and pedestrian concertina gates will be provided at each access and exit driveway to enhance the safety of pedestrians. Due to higher pedestrian movements occurring along Great North Road, a traffic controller will be provided to manage and control truck and pedestrian movements at the site driveways. Traffic controllers located at the entry and exit driveway will be notified by two-way radio whenever there is a construction vehicle approaching the site. Pedestrian concertina gate will be installed to manage safety at the driveway Cyclist access and safety will be managed as will general traffic along the frontage roads.
Impact on Public Transport Operations (including buses and trains)	No impact on public transport operations
Impact on TfNSW, Local Council and other stakeholder operations	No material impact on traffic flows is anticipated along Great North Road
Local businesses and property owners' access	Access for local businesses and property owners will be maintained, unless agreed otherwise
Impact on On Street Parking	The creation of new driveways has resulted in the loss of 12on-street parking spaces along the west side of Great North Road. Given the existing parking demand in the affected road section is mostly generated by the existing business premises that will be

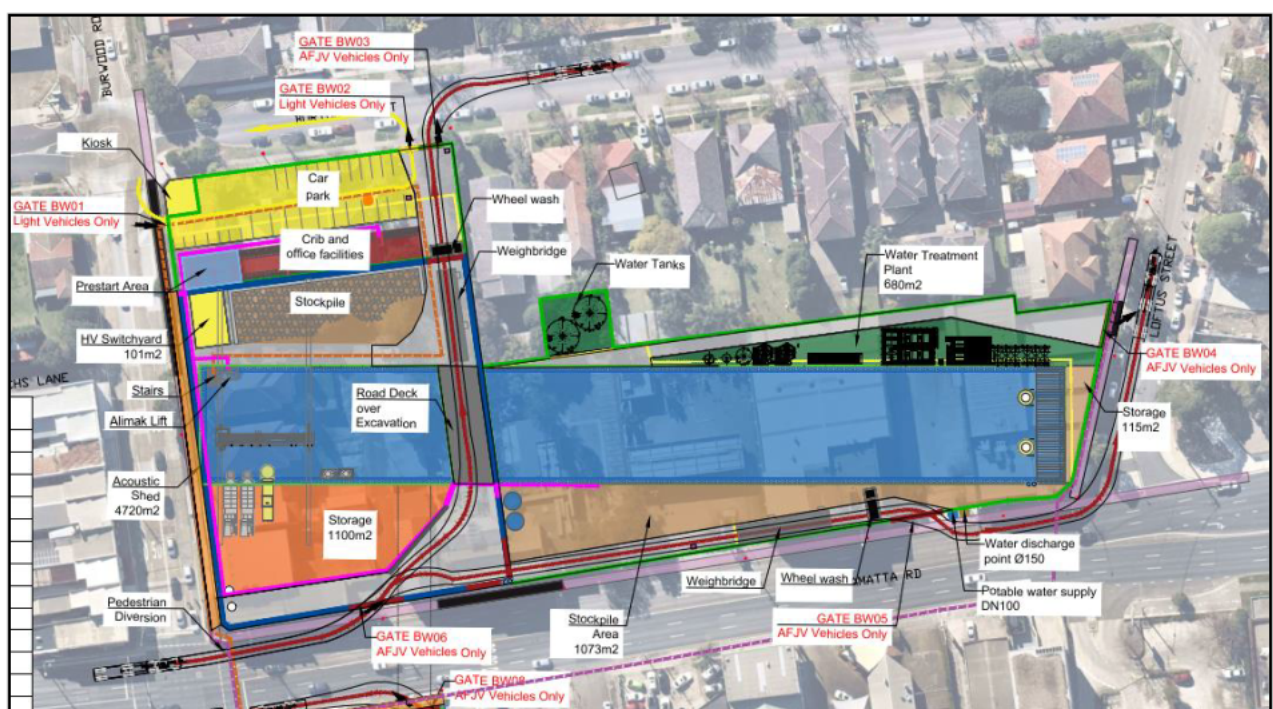
	demolished, no parking displacement is proposed as the parking demand associated with the adjacent properties will be reduced during construction period.
Site Security	Hoarding installed during site establishment works. The Australian Standard safety signage will be used to reinforce site security and safety requirements.
Consultation and Communication of Impact	A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders. Early discussions with stakeholders were held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG. AFJV will communicate potential impacts on assist community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6.7.2 to 6.7.9.
Special Events	It is noted that City of Canada Bay Council annually hold the Ferragosto Festival on Great North Road between Queens Road and Lyons Road. Consultation with council will occur on the lead-up to the events, site activities would normally be halted during these events.

4.6.4 BURWOOD NORTH CONSTRUCTION SITE (NORTH)

The Burwood North construction site comprises of two separate sites, a North site and a South site on either side of Parramatta Road. The North site is along Parramatta Road between Burwood Road and Loftus Street.

Figure 4.12 shows the indicative layout of the Burwood North construction site (North).

FIGURE 4 12: INDICATIVE LAYOUT OF BURWOOD NORTH CONSTRUCTION SITE (NORTH)



4.6.4.1 WORKS

- Construction of access and exit driveways on Parramatta Road, Burwood Road, Loftus Street and Burton Street
- Excavation of the station box

4.6.4.2 TRAFFIC MANAGEMENT

Table 4.1 provides a summary of traffic management requirements and impacts at the Burwood North station (site north)

TABLE 4.3: SUMMARY OF TRAFFIC MANAGEMENT AT THE BURWOOD NORTH CONSTRUCTION SITE (NORTH)

	Description
Timing	January 2022 to January 2025
Temporary enabling works	Works carried out along Parramatta Road, Burwood Road, Burton Street and Loftus Street to facilitate access and exit driveways for construction traffic.
Impact on Traffic Flow	Minimal impact on traffic flow as construction heavy vehicles are to enter and exit the site via a left turn movement An angled access driveway will reduce the need for lane sharing to enter site.
Impact on Emergency Services	No impact on traffic movements, including emergency vehicle access around the site.
Impact on Pedestrian and Cyclist Movements	Closure of the footpath on the north side of Parramatta Road between Burwood Road and Loftus Street Pedestrians will be detoured to the southern footpath via the signalised pedestrian crossing at Burwood Road and Shaftsbury Road, or via Burwood Road, Burton Street, and Loftus Street. Qualified traffic controller will be provided to manage and control truck and pedestrian movements at the site exit driveways on Burton Street and Loftus Street The traffic controller located at the driveway will be notified by two-way radio whenever there is a construction vehicle approaching the site The traffic controller will coordinate and separate traffic and pedestrian movements at the driveways. Cyclist access and safety will be managed as will general traffic along the frontage roads
Impact on Public Transport Operations (including buses and trains)	The eastbound bus stop on the Parramatta Road frontage currently services both STA and NightRide buses has been closed. This bus stop will be combined with the STA bus stop on Burwood Road northbound to serve STA buses including Route 415, 461X and 530. The length of the bus zone on Burwood Road northbound will be extended by 13m to accommodate an additional bus. NightRide services will be relocated to an existing bus stop west of Neichs Lane (west of Burwood Road).
Impact on TfNSW, Local Council and other stakeholder operations	No material impact on traffic flows is anticipated along Parramatta Road, Burwood Road, Burton Street and Loftus Street

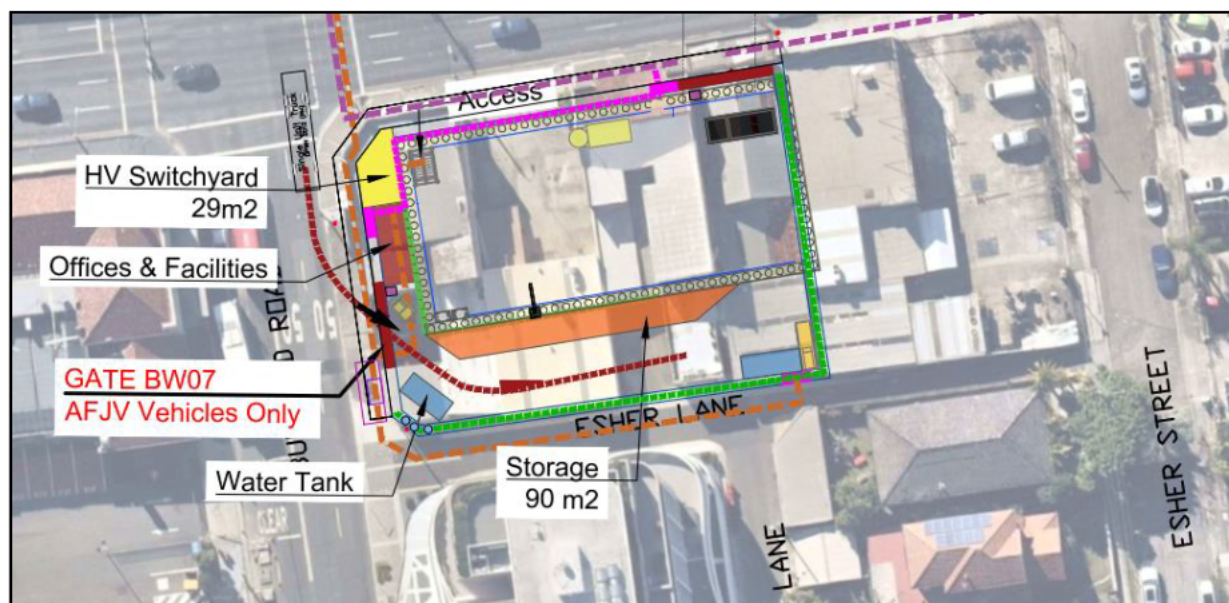
Local businesses and property owners' access	Access for local businesses and property owners will be maintained
Impact on On Street Parking	<p>3 parking spots have been removed on Burton Street opposite at the site exit gate to allow turn paths of truck and dogs exiting on Burton Street.</p> <p>4 spaces on west side of Loftus Street between Parramatta Road and Loftus Street site driveway</p>
Site Security	<p>Hoarding will be used to secure the site during site establishment works</p> <p>The Australian Standard safety signage will be used to reinforce site security and safety requirements.</p>
Consultation and Communication of Impact	<p>A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders Early discussions with stakeholders are being held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG.</p> <p>AFJV will communicate potential impacts on assist community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6 7 2 to 6 7 9</p>
Special Events	At this stage, there are no known special events that will impact general traffic near the Burwood North construction site (North)

4.6.5 BURWOOD NORTH CONSTRUCTION SITE (SOUTH)

The Burwood North construction site comprises of two separate sites, a North site and a South site on either side of Parramatta Road The South site is on the corner of Parramatta Road and Burwood Road.

Figure 4.13 shows the indicative layout of the Burwood North construction site (South).

FIGURE 4 13: INDICATIVE LAYOUT OF BURWOOD NORTH CONSTRUCTION SITE (SOUTH)



4.6.5.1 WORKS

- Construction of site access and exit driveways on Parramatta Road and Burwood Road
- Excavation of the shaft

4.6.5.2 TRAFFIC MANAGEMENT

Table 4.1 provides a summary of traffic management requirements and impacts at the Burwood North construction site (south)

TABLE 4.4: SUMMARY OF TRAFFIC MANAGEMENT AT THE BURWOOD NORTH CONSTRUCTION SITE (SOUTH)

	Description
Timing	May 2022 to January 2025
Temporary enabling works	<p>Works carried out along Parramatta Road and Burwood Road to facilitate access and exit driveways for construction traffic up to 12.5m long. The driveways are located at:</p> <ul style="list-style-type: none"> ▪ Heavy vehicle access driveway on Burwood Road ▪ Heavy vehicle exit driveway on Parramatta Road.
Impact on Traffic Flow	Minimal impact on traffic flow as construction heavy vehicles are to enter and exit the site via a left turn movement. The largest construction vehicle would be a 10 wheeler concrete agitator
Impact on Emergency Services	No impact on traffic movements, including emergency vehicle access around the site
Impact on Pedestrian and Cyclist Movements	<p>Traffic controller will be provided to manage and control truck and pedestrian movements at the site driveways</p> <p>The traffic controller located at the driveway will be notified by two way radio whenever there is a construction vehicle approaching the site</p> <p>The traffic controller will coordinate and separate traffic and pedestrian movements at the driveway.</p> <p>Cyclist access and safety will be managed as will general traffic along the frontage roads.</p>
Impact on Public Transport Operations (including buses and trains)	<p>The westbound bus stop on the Parramatta Road frontage currently services both STA and NightRide buses will be closed.</p> <p>This bus stop will be combined with the STA bus stop on Burwood Road southbound to serve STA buses including Route 415, 461X and 530. The length of the bus zone on Burwood Road southbound will be extended</p> <p>NightRide services will be relocated to a new bus stop west of Burwood Road outside Bath Arms Hotel.</p>
Impact on TfNSW, Local Council and other stakeholder operations	No material impact on traffic flows is anticipated along Parramatta Road and Burwood Road
Local businesses and property owners' access	Access for local businesses and property owners will be maintained

Impact on On Street Parking	2 parking spaces removed on Burwood Rd south of Parramatta Road to facilitate an extended bus zone.
Site Security	Fencing, hoarding and other methods of securing the site will be carried out during site establishment works. The Australian Standard safety signage will be used to reinforce site security and safety requirements
Consultation and Communication of Impact	A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders. Early discussions with stakeholders are being held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG. AFJV will communicate potential impacts on assist community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6.7.2 to 6.7.9.
Special Events	At this stage, there are no known special events that will impact general traffic near the Burwood North construction site (South). However, the site specific CTMP will consider traffic management measures during special events. Consultation with event organisers, SM and Burwood Council will occur to manage potential impacts on event goers, the general public and the construction works. This may involve measures such as temporary adjustment to haul routes, working hours or potentially stopping works for the duration of the event

4.6.6 NORTH STRATHFIELD CONSTRUCTION SITE

The North Strathfield construction is located adjacent to the east side of the North Strathfield Railway Station fronting Queen Street. The site boundary extends into the roadway and beyond the existing parking spaces on the west side of Queen Street.

Figure 4.14 shows the indicative layout of the Strathfield North construction site.

FIGURE 4.14: INDICATIVE LOCATION OF STRATHFIELD NORTH CONSTRUCTION SITE



4.6.6.1 WORKS

- Relocation of a school bus stop with a Kiss-and-Ride zone from the west side of Queen Street to Wellbank Street.

- The following TCS works has been undertaken:
 - Modification of Concord Road and Wellbank Street (TCS 967) pedestrian protection
- Closure of footpath along the Queen Street frontage (west side).
- Construction of pedestrian crossing facilities on Queen Street.
- Excavation of the station box

4.6.6.2 TRAFFIC MANAGEMENT

Table 4.1 provides a summary of traffic management requirements and impacts at the North Strathfield construction site.

TABLE 4 5: SUMMARY OF TRAFFIC MANAGEMENT AT THE NORTH STRATHFIELD CONSTRUCTION SITE

	Description
Timing	February 2022 to January 2025
Temporary enabling works	<p>Works carried out along Queen Street to facilitate access and exit points for construction traffic at:</p> <ul style="list-style-type: none"> ▪ Access on Queen Street northbound near Wellbank Street ▪ Exit on Queen Street north of Waratah Street
Impact on Traffic Flow	Minimal impact on traffic flow as construction heavy vehicles are to enter and exit the site via a left turn movement.
Impact on Emergency Services	No impact on emergency services
Impact on Pedestrian and Cyclist Movements	<p>Existing footpath along the west side of Queen Street between north of Wellbank Street and Pomeroy Street has been closed for the duration of the project. Pedestrians are diverted to east side of Queen Street via the two new level pedestrian crossings.</p> <p>Cyclist access and safety will be managed as will general traffic along the frontage roads</p>
Impact on Public Transport Operations (including buses and trains)	No impact on public transport operations as the southbound bus zone do not serve any STA or NightRide buses. School bus zone will be relocated from the west side of Queen Street to Wellbank Street with a walking distance of some 100m
Impact on TfNSW, Local Council and other stakeholder operations	No material impact on traffic flows are anticipated at the North Strathfield site
Local businesses and property owners' access	Access for local businesses and property owners will be maintained, unless agreed otherwise
Impact on On Street Parking	<p>20 parking spaces on the western side of Queen Street between Wellbank Street and Pomeroy Street, to allow establishment of the required work area</p> <p>4 parking spaces on the southern side of Wellbank Street to allow for the relocation of the bus stop from Queen Street to Wellbank Street.</p>

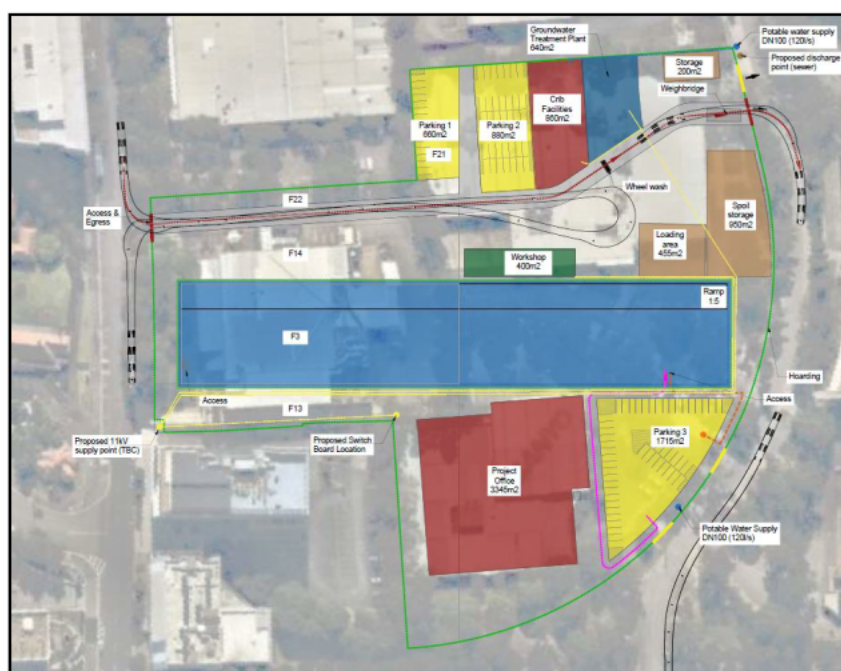
	3 parking spaces on the eastern side of Wellbank Street to allow for the installation of two new level pedestrian crossings
Site Security	<p>Fencing and other methods of securing the site will be carried out during site establishment works.</p> <p>The Australian Standard safety signage will be used to reinforce site security and safety requirements</p>
Consultation and Communication of Impact	<p>A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders. Early discussions with stakeholders are being held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG.</p> <p>AFJV will communicate potential impacts on assist community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6.7.2 to 6.7.9.</p>
Special Events	<p>At this stage, there are no known special events that will impact general traffic near the North Strathfield construction site.</p> <p>However, the site specific CTMP will consider traffic management measures during Special Events. Consultation with event organisers, SM and Canada Bay Council will occur to manage potential impacts on event goers, the general public and the construction works. This may involve measures such as temporary adjustment to haul routes, working hours or potentially stopping works for the duration of the event.</p>

4.6.7 SYDNEY OLYMPIC PARK CONSTRUCTION SITE

The Sydney Olympic Park construction site is located to the east of Olympic Boulevard between Herb Elliott Avenue and Figtree Drive, surrounding by Sydney Olympic Park town centre and central precinct.

Figure 4.15 shows the indicative layout of the Olympic Park construction site.

FIGURE 4.15: INDICATIVE LAYOUT OF OLYMPIC PARK CONSTRUCTION SITE



4.6.7.1 WORKS

- Widening of the existing driveways on Herb Elliot Avenue and Figtree Drive.
- Excavation of the station box

4.6.7.2 TRAFFIC MANAGEMENT

Table 4.1 provides a summary of traffic management requirements and impacts at the Sydney Olympic Park construction site.

TABLE 4 6: SUMMARY OF TRAFFIC MANAGEMENT AT THE SYDNEY OLYMPIC PARK CONSTRUCTION SITE

	Description
Timing	February 2022 to early 2025
Temporary enabling works	<p>Works carried out along Herb Elliott Avenue and Figtree Drive to widen the existing driveways for construction traffic Access arrangement will be different in the following stages:</p> <ul style="list-style-type: none"> ▪ Finishing works before site handover ▪ Demolition of the remaining buildings, currently being used as the Project Delivery Office (PDO)
Impact on Traffic Flow	Minimal impact on traffic flow as traffic volume is low on Herb Elliott Avenue and on Figtree Drive.
Impact on Emergency Services	No impact on emergency services
Impact on Pedestrian and Cyclist Movements	<p>Qualified traffic controllers will be provided to manage and control truck and pedestrian movements at the driveways The traffic controller located at the driveways will be notified by two-way radio whenever there is a construction vehicle approaching the site. The traffic controller will coordinate and separate traffic and pedestrian movements at the driveway.</p> <p>Cyclist access and safety will be managed as will general traffic along the frontage roads</p>
Impact on Public Transport Operations (including buses and trains)	No impact on public transport operations
Impact on TfNSW, SOPA and other stakeholder operations	No material impact on traffic flows is anticipated
Local businesses and property owners' access	Access for local businesses and property owners will be maintained
Impact on On Street Parking	There is no parking removal proposed as part of the project works
Site Security	<p>Fencing and other methods of securing the site will be carried out during site establishment works.</p> <p>The Australian Standard safety signage will be used to reinforce site security and safety requirements</p>

Consultation and Communication of Impact	<p>A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders. Early discussions with stakeholders are being held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG.</p> <p>AFJV will communicate potential impacts on assist community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6.7.2 to 6.7.9.</p>
Special Events	<p>The site-specific CTMP will consider traffic management measures during Special Events.</p> <p>Consultation with event organisers, SM and Sydney Olympic Park Authority (SOPA) will occur to manage potential impacts on event goers, the general public and the construction works. This may involve measures such as temporary adjustment to haul routes, working hours or potentially stopping works for the duration of the event. In particular, the number of special events increases significantly during December, AFJV will discuss with SOPA closely to determine appropriate measures to be implemented around the site to maintain safety for all road users.</p>

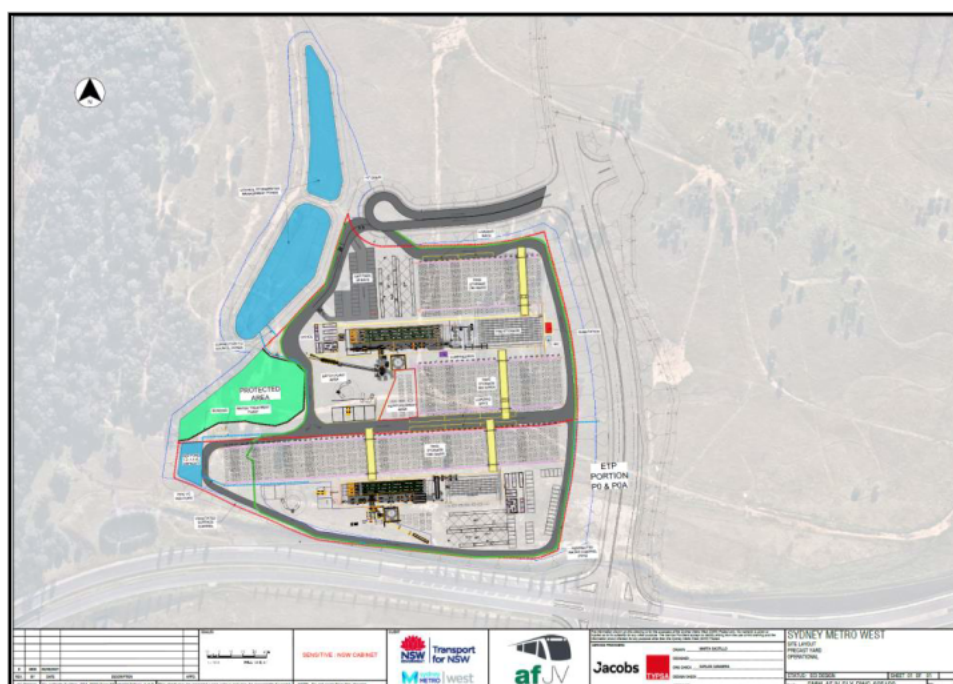
4.6.8 ERSKINE PARK PRECAST FACILITY SITE

Erskine Park precast facility is located on the north side of Lenore Drive, Erskine Park. Raw materials are delivered to the precast facility for the manufacture of precast concrete segments before being delivered to the storage area at the tunnel boring machine launch site located at The Bays Precinct and the Burwood North site.

The temporary facility will operate 24 hours a day, seven days a week for the majority of the projects lifespan.

Figure 4.16 shows the indicative layout of the Erskine Park Precast Facility.

FIGURE 4.16: INDICATIVE LAYOUT OF ERSKINE PARK PRECAST FACILITY SITE



4.6.8.1 WORKS

- Establishment and construction of the precast facility was carried out.

4.6.8.2 TRAFFIC MANAGEMENT

Table 4 1 provides a summary of traffic management requirements and impacts at the Precast Facility

TABLE 4.7: SUMMARY OF TRAFFIC MANAGEMENT AT THE PRECAST FACILITY

	Description
Temporary enabling works	Works would be carried out to convert the existing Lenore Drive intersection to traffic signals and extension of the northern stub for vehicle access to the precast facility. (works carried out by others)
Impact on Traffic Flow	Minimal impact on traffic flows are expected.
Impact on Emergency Services	No impact on emergency services
Impact on Pedestrian and Cyclist Movements	No impact on pedestrian and cyclist movements on the existing shared user path on the north side of Lenore Drive.
Impact on Public Transport Operations (including buses and trains)	No impact on public transport
Impact on TfNSW, Local Council and other stakeholder operations	No material impact on traffic flows is anticipated
Local businesses and property owners' access	No local businesses and properties in the vicinity of the site
Impact on On-Street Parking	No impact on on-street parking as parking is prohibited on Lenore Drive
Site Security	Fencing and other methods of securing the site will be carried out during site establishment works The Australian Standard safety signage will be used to reinforce site security and safety requirements
Consultation and Communication of Impact	A site specific CTMP has been developed in consultation with the relevant authorities and stakeholders. Early discussions with stakeholders were held regarding project access, delivery and spoil routes. Ongoing consultation will also be held with TTLG. AFJV will communicate potential impacts on community members and motorists determine necessary changes to travel plans via signage, advertising, notifications, website etc in accordance with the General Requirement Section 6 7 2 to 6 7 9
Special Events	At this stage, there are no known special events that will impact general traffic near the Erskine Park Precast Facility However, the site specific CTMP will consider traffic management measures during Special Events. Consultation with event organisers, SM and Penrith City Council will occur to manage potential impacts on

event goers, the general public and the construction works. This may involve measures such as temporary adjustment to haul routes, working hours or potentially stopping works for the duration of the event.

5. GENERAL CONSTRUCTION TRAFFIC MANAGEMENT

5.1 CONSTRUCTION SITE ACCESS

To provide safe access and exit to the work sites AFJV is responsible to:

- Install truck warning signs to warn motorists of trucks turning into and out of site accesses
- All trucks are to enter and exit sites in a forward direction, where feasible and reasonable.
- Design access and exit driveways that are visible to approaching traffic and signposted accordingly
- Design intersections and access points in accordance with Austroads Guide to Road Design Part 4A Unsignalised and Signalised Intersections, and if / where required relevant standards, guides or manuals
- Manage staff at site access driveways with suitable measures
- Install security fences and gates at locations which maintain clear sight lines
- TGSs will be prepared, where required, for temporary changes to the traffic environment associated with compound establishment and use
- PMPs will be prepared, where required, for temporary changes to pedestrian access resulting from compound establishment and use
- VMPs will be prepared, where required, for access associated with establishment and use of construction compounds and access routes
- Access for emergency vehicles and to firefighting equipment will be maintained
- Consider installation of footpath decals or other measures to increase awareness of the presence of heavy vehicles along high pedestrian areas
- Consider additional signage around Sydney Olympic Park to raise awareness between heavy vehicles and the public.
- Wherever practical avoid haul routes that require heavy vehicles to travel through school zones and where possible reduce the quantity of heavy vehicle movements during school pick up and drop off times.

The AUSTROADS Guide to Traffic Engineering provides guidance on the design of intersections and access points. No matter the type of intersection configuration implemented, temporary traffic controls may be required from time to time to facilitate short term major haulage and the movement of over-dimension vehicles.

5.2 VEHICLE MOVEMENTS WITHIN SITE

There are a range of hazards for vehicles on site, including rough surfaces, low clearance, other larger plant in vicinity and existing infrastructure. Of equal importance is the safety of unprotected construction personnel working within the work site. For each stage of work, AFJV will undertake the following:

- VMPs are developed for all regular construction heavy vehicle movements
- Toolbox meetings to discuss on site vehicle movements and changes to work areas
- All plant is fitted with flashing yellow lights, atonal reversing alarms ('quackers'), horns and two-way radios

- Access tracks are clearly defined and sign posted
- Pedestrian tracks and crossing points are defined and clearly sign posted with plant and pedestrians separated wherever possible
- Where possible large items of plant, such as cranes, are separated from smaller plant items
- Appropriate warning signs are installed on the approach to hazards or conflict points
- Where necessary appropriate traffic controls are installed
- Consideration is given to the installation and enforcement of reduced on-site speed
- As necessary, delivery vehicles are to be managed on-site

5 3 TRUCK MARSHALLING AREAS

At the time of drafting revision 06 of this OCTMP two marshalling areas have been identified for use, one at The Bays and one at Burwood North. The following items were considered when identifying these marshalling areas:

- Situated in a non-residential area in close proximity to the arterial road network and ease of on/off accessibility from arterial road (driveway, merge/demerge slip lanes)
- Situated in close proximity to the Project
- Location works well with direction of access into each project site location
- No impact on utilities, below or overhead
- No impact or minimal impact on pedestrians/cyclists
- No major traffic congestion from the TMA at surrounding intersections
- Private or public owned land
- Council special requests/consent
- Any foreseeable issue with CJP approvals
- Any temporary work required on the proposed site (e.g. hardstand).

Where truck marshalling areas are identified, these areas will be addressed as part of the site specific CTMPs.

5 4 PARKING MANAGEMENT STRATEGY

AFJV have developed a parking management strategy in consultation with City of Canada Bay and site representatives. The strategy outlines the forecast demand for parking across each of the sites along with proposed parking strategies for each of the sites

Parking arrangements and the configuration and operation will be monitored regularly to ensure a suitable and appropriate solution has been implemented to manage site parking arrangements.

Where necessary, monitoring and changes will be implemented to ensure a suitable solution for parking is achieved

5 4 1 ON-SITE PARKING

Car parking for construction workers would not be provided at all sites due to the constrained nature of the construction sites. The majority of construction sites are located in close proximity to public transport services and construction workers would be encouraged to use these services

Table 5.1 provides a summary of the number of parking spaces at each site.

Table 5 1: On Site Parking Provision

Site	On Site Parking Provision
The Bays	Nil
Five Dock	Nil
Burwood North	21 spaces
North Strathfield	15 spaces
Sydney Olympic Park	55 spaces

5 5 OTHER TRAFFIC MANAGEMENT MEASURES

This section provides an overview of traffic management measures for various stages of the Project

5 5 2 SITE DEMOBILISATION

During site demobilisation, all vehicles are to enter and exit the sites using the new access and exit driveways.

Two tunnel boring machines will be removed from the Sydney Olympic Park construction site.

Class 1 deliveries/removals including over size material and equipment such as powered mobile plants and sheds will be transported by semi trailers under traffic management. TGSs will be developed to show the required traffic control measures to manage temporary works to guide road users past the site areas safely

5.5.3 SPOIL REMOVAL

Table 5.2 provides a summary of the traffic management at each site access and exit driveway to manage spoil trucks and pedestrians during the construction period.

TABLE 5.2: PROPOSED TRAFFIC MANAGEMENT REQUIRED DURING CONSTRUCTION

Site	Site access	Pedestrian management	Designed for Largest Vehicle
The Bays	Port Access Road (access)	Traffic Control gate keeper	19m semi-trailer
	Port Access Road (exit)	Traffic Control gate keeper	
Five Dock (east)	Waterview Street (access)	Traffic Control gate keeper	12.5 truck
	Second Avenue (exit)	Traffic Control gate keeper	
Five Dock (west)	Great North Road (access)	Traffic Control gate keeper	12.5m truck
	Great North Road (exit)	Traffic Control gate keeper	
Burwood North (north)	Parramatta Road and Burwood Road (access)	Traffic Control gate keeper	19m semi trailer

	Loftus Street and Burton Street (exit)	Traffic Control gate keeper	
Burwood North (south)	Burwood Road (access)	Traffic Control gate keeper	12.5m heavy rigid vehicle
	Parramatta Road (exit)	Traffic Control gate keeper	
North Strathfield	Queen Street (access)	Traffic Control gate keeper	19m semi trailer
	Queen Street (exit)	Traffic Control gate keeper	
Sydney Olympic Park	Herb Elliot Avenue (access and exit)	Traffic Control gate keeper	19m semi trailer
	Figtree Drive (exit)	Traffic Control gate keeper	

6. REFERENCE DOCUMENTS

This overarching CTMP has been prepared with reference to:

- Request for Tender – Volume 4A (General Specification) Sydney Metro West Central Tunnelling Package
- Request for Tender – Volume 4B (Particular Specification) Sydney Metro West Central Tunnelling Package
- Sydney Metro West Environmental Impact Statement, Westmead to The Bays and Sydney CBD – Chapter 10, Technical Paper 1: Transport and Traffic and Appendix F: Construction Traffic Management Framework
- Sydney Metro West – Westmead to The Bays and Sydney CBD Submissions Report
- Sydney Metro West – Westmead to The Bays and Sydney CBD Amendment Report
- TfNSW Design and Construct G10 Traffic Management Specification
- Austroads Guidelines and TfNSW Supplements
- Roads Act 1993 No 33 (NSW)
- Australian Standards.

7. APPENDIX A – INSPECTIONS, AUDITS AND CHECKLISTS

E.6 Portable variable message sign (VMS) location and placement checklist

Proposed site location	
Road Details /Intersections /property numbers	
Purpose of the VMS	
Proposed period of use	
Is this integrated with TMC?	

Checklist details for VMS location	Yes, No or N/A	Comments/reasons for non-compliance
Planning		
Will the location of the proposed VMS be in the road reserve?		
Will the proposed VMS be visible from a road or road related area?		
Is the proposed VMS being used as part of a major event?		
Safety		
Will the proposed location allow safe and easy access to the site for deployment of the portable VMS?		
Is the proposed site located near any utilities (overhead or underground)?		
Will the proposed site cause personnel to be unsafely exposed to traffic?		
Will traffic control be required to safely place or remove the portable VMS?		
Are there any other safety considerations at the proposed site? e.g. bore drains, culverts etc.		

Checklist details for VMS location	Yes, No or N/A	Comments/reasons for non-compliance
Placement		
Is the proposed location likely to affect or change the patterns of any vulnerable road user movements?		
Is the proposed location likely to affect or change the pattern of cyclist movements?		
Will the proposed location be outside of the clear zone requirements? (For more information on clear zones, refer Austroads <i>Guide to Road Design Part 6: Roadside Design, Safety and Barriers</i>)		
Is the proposed location at least 300m from the nearest permanent VMS?		
Is the proposed location at least 200-300m from significant static signs?		
Is the proposed location at least 200-300m from any signalised intersections?		
Will the proposed location cause driver distraction?		
Is the proposed location a suitable distance from any speed zoning signage?		
Is the proposed location in the direct run off carriageway path of a vehicle?		
Will the proposed location affect any residential or commercial properties?		
Will the proposed location affect any accesses or legal rights of way?		
Is the proposed location within 200m of any intersection or merging lane?		

Structures		
Will the proposed location be behind guard rail?		
Will the proposed location be behind wire rope fence?		
Is the proposed location close to significant road side furniture?		

Reset forms - pages 284 to 286

Reset all forms



1.1 Retro Traffic HAC Form Rev1 - Acciona Ferrovia JV- Sydney Metro West

Submitted at 00.01am, 6th Feb, 2023

Created by XX at **00.00 pm, 5th Feb, 2023** from **Mobile**

V.4 submitted by XX at **00.01 am, 6th Feb, 2023** from **Mobile**

Result ID / version

#XX / V.4

Client

Acciona Ferrovia Joint Venture

Worker

XX

Form ID

#XX

Project XX

Allocation date

5th Feb, 2023

Form Result Details

Q1. Date

5th Feb, 2023

Q2. Location

XX

Q3. Description of Works to be undertaken:

XX

PART A - PRE-START HAZARD ANALYSIS

Q4. Are all personnel wearing correct PPE?

☒ Yes

☐ No

Q5. Are all traffic control personnel fit for work?

☒ Yes

☐ No

Q6. Are there sufficient personnel for the task?

- ☒ Yes
☐ No

Q7. Are hard copies of TGS's/Permits on site?

- ☒ Yes
☐ No

Q8. Emergency procedures explained & understood by all the crew?

- ☒ Yes
☐ No

Q9. Is there a nominated first aider on site?

- ☒ Yes
☐ No

Q10. Who is the nominated first aider?

XX

Q11. Is the vehicle pre-start checklist completed?

- ☒ Yes
☐ No
☐ No Vehicles on site

Q12. Have hazards from previous shifts been discussed in the pre-start meeting?

- ☒ Yes
☐ No
☐ N/A

Q13. HAZARD ASSESSMENT - Check boxes of hazards that exist at time of assessment

- ☒ Mobile Plant
☒ Slip/Trips/Falls
☒ High Pedestrian Activity
☐ Extreme Weather Conditions
☐ Traffic Speed
☐ Overhead Work
☐ Traffic Volume
☐ Other works in close proximity
☐ Limited Escape Route

List and Risk Rate all identified hazards from above and describe control measures to be used.

RISK RATING: 1 = Low, 2 = Medium, 3 = High, 4 = Extreme

Q14. 1. Hazard

XX

Q15. Risk Rating

X

Q16. Control Measures

XX

Q17. New Risk Rating

X

Q18. 2. Hazard

XX

Q19. Risk Rating

X

Q20. Control Measures

XX

Q21. New Risk Rating

X

Q22. 3. Hazard

XX

Q23. Risk Rating

X

Q24. Control Measures

XX

Q25. New Risk Rating

X

Q26. Please tick the applicable permits and plans required for the project?

- ☒ Site Specific TGS
- ☒ Site Specific ROL
- ☐ Other

Q27. Please enter the Site Specific TGS numbers

XX

Q28. Please upload a screenshot of ROL activation

Q29. Please upload a screenshot of ROL activation

Q30. PPE worn:

- ☒ Steel Toe Cap Boots
- ☒ UV Protection
- ☒ Gloves
- ☒ Hard Hat
- ☒ Hi Vis Clothing
- ☒ Night Overalls
- ☒ Safety Glasses
- ☒ Long Pants/Sleeves rolled down

RETRO TRAFFIC SUPERVISOR:

Q31. I have undertaken a site hazard analysis and have explained all risks and control measures to the rest of the team members. I shall ensure that reassessment is undertaken should any changes to site conditions arise. Sign

Q32. Supervisor name

XX

Q33. Time

00.01

CREW MEMBERS: I have participated in the above hazard analysis for this work activity and understand the hazards, risks and control measures necessary for the safe completion of the job. I agree to follow the directions of the site supervisor and the conditions of the relevant SWMS and shall immediately inform my supervisor of any changes to site conditions. I am not under the influence of any illegal drugs or alcohol nor am I taking any prescription drugs or suffering from any physical or mental impairment that could prevent me from complying with the conditions of this risk assessment.

Q34. 1. Crew member name

XX

Q35. Time

00.01

Q36. 1. Crew Member Signature

Q37. 2. Crew member name

XX

Q38. Time

00.01

Q39. 2. Crew Member Signature

Q40. 3. Crew member name

XX

Q41. Time

00.01

Q42. 3. Crew Member Signature

Q43. 4. Crew member name

XX

Q44. Time

00.01

Q45. 4. Crew Member Signature

Q46. 5. Crew member name

XX

Q47. Time

00.01

Q48. 5. Crew Member Signature

PART B - DURING WORK INSPECTIONS:

INSPECTION 1:

Q49. Time of Inspection

00.01

Q50. Are all signs and devices still in place?

- ☒ Yes
☐ No

Q51. Are traffic queues forming?

- ☒ No
☐ Yes

Q52. All arrow boards/lights working?

- ☒ Yes
☐ No

Q53. Have site conditions changed?

- ☒ No
☐ Yes

Q54. Do you need to modify the TGS?

- ☒ No
☐ Yes

INSPECTION 2

Q55. Time of Inspection:

00.01

Q56. Are all signs and devices still in place?

- ☒ Yes
☐ No

Q57. Are traffic queues forming?

- ☒ No
☐ Yes

Q58. All arrow boards/lights working?

- ☒ Yes
☐ No

Q59. Have site conditions changed?

- ☒ No
☐ Yes

INSPECTION 3

Q60. Time of Inspection:

00.01

Q61. Are all signs and devices still in place?

- ☒ Yes
☐ No

Q62. Are traffic queues forming?

- ☒ No
☐ Yes

Q63. All arrow boards/lights working?

- ☒ Yes
☐ No

Q64. Have site conditions changed?

- ☒ No
☐ Yes

PART C - END OF SHIFT CHECKLIST

Q65. Have all signs and devices been removed and the road/footpath returned to normal operations?

- ☒ Yes
☐ No
☐ N/A

Q66. Was the ROL deactivated on time?

- ☒ Yes
☐ No
☐ N/A

Q67. Please upload a photos of the deactivated ROLs

Q68. Do any signs or devices have to remain on site?

- ☒ No
☐ Yes
☐ N/A

Q69. Are all signs and devices safely secured on vehicle before departing site?

- ☒ Yes
☐ No
☐ N/A

Q70. Have you reported any incidents, site changes, near misses or public inquiries to Retro Traffic Management and the client site supervisor?

- ☒ N/A
☐ Yes
☐ No

Q71. Has all paperwork been signed and copies given to the client where applicable?

- ☒ Yes
☐ No
☐ N/A

Q72. Name of the client's site supervisor

XX

END OF SHIFT CLOSE OUT

Q73. Name

XX

Q74. Signature

Q75. Time

00.01

EXAMPLE

Details

Created at 01/01/0001 by XX
 Completed at 01/01/0001
 Last modified 01/01/0001 00:00:01 by XX
 Status Complete
 Respondent XX
 Business Unit Acciona Construction Australia
 Division ACA - Construction - NSW
 Project C1045 - Sydney Metro West - Central Tunnelling Package
 Site Location C1045.2 - CTP - Project Wide
 Contractor Company XX
 Identifier XX

1. Inspection Details

Date:	Time:	Area Supervisor:	Site Location:	Geo Location:
01/01/0001	11:00 AM	XX	XX	No Data

Persons involved with Inspection:

Name: (ACCIONA Employee)	Name: (Contractors, Client, Visitors etc.)
XX	

Inspection Items:

C = Compliant, UA = Not Compliant - Unacceptable stop work & take immediate action, NI = Not Compliant - Needs improvement but safe to continue, N/A = Not Applicable

2. Have all options so far as is reasonably practicable (SFAIRP) been explored to eliminate the need for project personnel to work in close proximity or adjacent to live traffic?

Comments:

3. Have relevant authorities including the client, local traffic authorities and police undertaken on road Projects to reduce speed limits SFAIRP?

Comments:

4. Does the SWMS detail the hazards and controls specific to working with live traffic?

Comments:

5. Has the supervisor conducted a pre-start

5. Has the supervisor conducted a pre-start and does it detail the controls to be utilised to manage the risks associated with working with live traffic?

Comments:

6. Has the traffic management plan detailed the physical barriers and separation distances required?

Comments:

7. A traffic Coordinator has been nominated to manage the daily interfaces and safe movements?

Comments:

8. Do traffic controllers hold the correct licenses to undertake the works?

Comments:

9. Are physical barriers / separation being used to avoid interaction of work with live traffic?

Comments:

10. Are the permanent or temporary physical barriers installed as per the manufacturers specifications?

Comments:

11. Are all signs, barriers and delineation installed as per the approved TMP?

Comments:

12. Are pedestrian and vehicle exclusion zones clearly barricaded and signed and documented in TMP?

Comments:

Inspection - Traffic Management (Version 2)

13. Crash attenuators shall be considered as a preferred control for work in live traffic.

Comments:

14. Is signage visible and correctly positioned with signage not in use covered to avoid confusion?

Comments:

15. Signage for temporary road works should include after hours emergency.

Comments:

16. Project compound, work area access and egress are identified with clear signposting, traffic management and demarcated as required.

Comments:

17. Has the traffic management plan been fully implemented and are personnel complying with the requirements?

Comments:

18. Have daily inspections been conducted of traffic control devices/signs for compliance to the TMP?

Comments:

19. All persons are working outside the minimum road clearance distances as dictated in the TMP?

Comments:

20. Works are programmed such that traffic flow shall never interface?

Comments:

21. For current roadworks an aftercare program is conducted to ensure safety after hours of road users?

Comments:

22. Are SWMS in place and communicated to the workers for the current tasks being

the workers for the current tasks being undertaken and are the specific health, safety and environmental controls implemented?

Comments:

Note:

If you have selected UA or NI for the above questions, please ensure to raise any actions at the end of this form.

Additional

Photos

Attachments

- No file attachments

Actions

ID	First name	Last name	Due date	Date closed	Action description	Status	Last Comment
----	------------	-----------	----------	-------------	--------------------	--------	--------------

Details

Created at	01/01/0001
Completed at	01/01/0001
Last modified	01/01/0001 00:00:01
Status	Complete
Respondent	XX
Business Unit	Acciona Construction Australia
Division	ACA - Construction - NSW
Project	C1045 - Sydney Metro West - Central Tunnelling Package
Site Location	C1045.2 - CTP - Project Wide
Contractor Company	
Identifier	XX
Date of Observation	01/01/0001
Specific Location:	XX
Geo Location:	
No Data	
Person/s observed:	
Supervisor's Name:	XX
Observation type	At Risk
Applicable OMR	2. Plant, traffic & people
Observation related to:	Traffic & Vehicle Interactions
Summary:	XX
Describe the observation	XX.

ID	Actionee	Actionee	Due date	Action description	Status
----	----------	----------	----------	--------------------	--------

Photos

EXAMPLE

Attachments

- No file attachments

Actions

ID	First name	Last name	Due date	Date closed	Action description	Status	Last Comment
----	------------	-----------	----------	-------------	--------------------	--------	--------------

Week starting date:

Weekly Supervisors Report



Supervisors name:

Instructions:

- This form is to be completed weekly, the form is to be updated daily as the week progresses. At the end of each week, the form is to be saved within SharePoint.
- Each long term setup must be inspected a minimum of once per week. any issues identified are to be reported.
- In addition to this form, a minimum of two audits must be completed within Lucidity each week.

Precast Yard

Inspection Date:	Inspection Time:	YES	NO	NA	Comments:
1.1 Signs: All signs installed to the CTMP, visible and stable		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.2 Line Marking: Installed to the CTMP, is visible and provides good delineation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.3 Road Pavement: Road surface is in good condition and free from potholes.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.4 Pedestrian Paths: Paths are suitable for all pedestrian types and free from hazards.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.5 Short term Traffic Control: Installed as per the TGS and is operating safely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Sydney Olympic Park

Inspection Date:	Inspection Time:	YES	NO	NA	Comments:
2.1 Signs: All signs installed to the CTMP, visible and stable		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2 Line Marking: Installed to the CTMP, is visible and provides good delineation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.3 Road Pavement: Road surface is in good condition and free from potholes.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4 Pedestrian Paths: Paths are suitable for all pedestrian types and free from hazards.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5 Short term Traffic Control: Installed as per the TGS and is operating safely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

North Strathfield

Inspection Date:	Inspection Time:	YES	NO	NA	Comments:
3.1 Signs: All signs installed to the CTMP, visible and stable		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2 Line Marking: Installed to the CTMP, is visible and provides good delineation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.3 Road Pavement: Road surface is in good condition and free from potholes.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.4 Pedestrian Paths: Paths are suitable for all pedestrian types and free from hazards.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5 Short term Traffic Control: Installed as per the TGS and is operating safely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Burwood North

Inspection Date:	Inspection Time:	YES	NO	NA	Comments:
4.1 Signs: All signs installed to the CTMP, visible and stable		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.2 Line Marking: Installed to the CTMP, is visible and provides good delineation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.3 Road Pavement: Road surface is in good condition and free from potholes.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.4 Pedestrian Paths: Paths are suitable for all pedestrian types and free from hazards.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.5 Short term Traffic Control: Installed as per the TGS and is operating safely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Five Dock

Inspection Date:	Inspection Time:	YES	NO	NA	Comments:
5.1 Signs: All signs installed to the CTMP, visible and stable		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.2 Line Marking: Installed to the CTMP, is visible and provides good delineation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.3 Road Pavement: Road surface is in good condition and free from potholes.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.4 Pedestrian Paths: Paths are suitable for all pedestrian types and free from hazards.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.5 Short term Traffic Control: Installed as per the TGS and is operating safely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

The Bays

Inspection Date:	Inspection Time:	YES	NO	NA	Comments:
6.1 Signs: All signs installed to the CTMP, visible and stable		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.2 Line Marking: Installed to the CTMP, is visible and provides good delineation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.3 Road Pavement: Road surface is in good condition and free from potholes.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.4 Pedestrian Paths: Paths are suitable for all pedestrian types and free from hazards.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.5 Short term Traffic Control: Installed as per the TGS and is operating safely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Other

Inspection Date:	Inspection Time:	YES	NO	NA	Comments:
7.1 Signs: All signs installed to the CTMP, visible and stable		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.2 Line Marking: Installed to the CTMP, is visible and provides good delineation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.3 Road Pavement: Road surface is in good condition and free from potholes.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.4 Pedestrian Paths: Paths are suitable for all pedestrian types and free from hazards.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.5 Short term Traffic Control: Installed as per the TGS and is operating safely.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Lucidity Inspections

Comments:

1 Location:	Date:	Time:
2 Location:	Date:	Time:

Signed:

Date: