CONSTRUCTION TRAFFIC MANAGEMENT PLAN

HSEJV-CTMP-106-04

HASLIN & STEPHEN EDWARDS JOINT VENTURE - SOUTHWEST METRO STATION UPGRADE PACKAGE 4 – CANTERBURY, LAKEMBA, MARRICKVILLE STATIONS

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Title:	Description
Ref No.:	HSEJV-CTMP-106-04
Description:	HASLIN & STEPHEN EDWARDS JOINT VENTURE - SOUTHWEST METRO STATION UPGRADE – CANTERBURY, LAKEMBA, MARRICKVILLE
Discipline:	Traffic Management

Role	Name	Position	Date	Signed
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00	01/02/2021	FIRST ISSUE TO HASLIN & STEPHEN EDWARDS JOINT VENTURE
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Reference Documentation

- SM ES-ST-214: G10 Traffic and Transport Management;
- SM PS-ST-221: Sydney Metro Principal Contractor Health and Safety Standard;
- SM Station Upgrade Works Package 4 – Exhibit A – SWTC;
- RMS Traffic Control at Worksites Manual. Version 6;
- Relevant Austroads Guidelines;
- RMS Supplements to Austroads and Australian Standards;
- AS 1742.3 Manual of uniform traffic control devices Part3: Traffic control devices for works on roads;
- Ministers Conditions of Approval;
- Construction Environmental Management Framework; and
- Construction Traffic Management Framework.

Compliance Table

The Project was assessed as a Critical State Significance Infrastructure (CSSI) by the Minister for Planning by virtue of clause 5 of Schedule of the Stage Environmental Planning Policy (state and Regional Development) 2011 (NSW) and section 5.13 of the Environmental Planning and Assessment Act 1979 (NSW). The Minister's Conditions of Approval (CoA) were granted on the 12 December 2018 with Conditions. A Construction Traffic Management Plan is required in accordance with the CoA, The Construction Environmental Management Framework (CEMF), The Southwest Metro Construction Environmental Management Plan (CEMP Rev 2 04/12/2020), Sydney Metro Health & Safety Standard and the Principals General Specifications G10.

Applicable Conditions of Approval (CoA) SSI 8256

Clause	Issue / Description	Document Reference or Response
E46	The Proponent must establish a Traffic and Transport Liaison Group(s) (TTLGs) to inform traffic and transport management measures during Construction and Operation of the CSSI. Management measures must be coordinated with the TfNSW following consultation with the Sydney Coordination Office the Relevant Roads Authority. The TTLG must comprise representatives from the Relevant Road Authority(ies), transport operators (including bus and taxi operators) and emergency services as required. The TTLG must be consulted to inform preparation of the Construction Traffic Management Plan(s).	Section 7 of this CTMP
E47	Construction Traffic Management Plans (CTMPs) must be	Section 1.1 of this

	prepared for each Construction site or stage (or Low Impact Activity where required) in accordance with the CEMF and relevant Austroads, Australian Standards and TfNSW requirements. The CTMPs must be submitted to the RMS following engagement with the Sydney Coordination Office and before Construction commences at the relevant Construction site or stage. A copy of the Construction Traffic Management Plans must be submitted to the Planning Secretary for information.	CTMP
E48	The Proponent must prepare a Temporary Transport Management Plan in accordance with the Temporary Transport Strategy included in documents listed in Condition A1 one (1) month before the implementation of the Plan.	Section 1.1 of this CTMP
E49	Before any local road is used by a heavy vehicle for the purposes of Construction 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 council(s) within four (4) weeks of completion of the survey and at least two (2) weeks before the road is used by heavy vehicles associated with the Construction of the CSSI.	Section 3.3.2 of this CTMP
E50	If damage to roads occurs as a result of the Construction of the CSSI, the Proponent must either: (a) compensate the relevant road authority for the damage so caused. The amount of compensation may be agreed with the relevant road authority; or (b) rectify the damage to restore the road to at least the condition it was in pre-Construction as identified in the Road Dilapidation Report(s).	Section 3.3.2 of this CTMP
E51	During Construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access must be provided, and opportunities for parking arrangements must be investigated in consultation with affected businesses/properties and implemented before the disruption. Adequate signage and directions to businesses/properties must be provided before, and for the duration of, any disruption.	Section 3.2 Section 5 Section 7 of this CTMP
E52	Safe pedestrian and cyclist access must be maintained around Work sites during Construction. In circumstances where pedestrian and cyclist access is restricted or removed due to Construction activities, an alternate route which complies with the relevant standards must be provided and signposted.	Section 5 of this CTMP

E53	The Proponent must prepare a Walking and Cycling Strategy to identify opportunities and works to connect stations with the surrounding communities, by connecting to or enhancing existing pedestrian and cyclist paths. The Walking and Cycling Strategy must also identify opportunities and works to improve pedestrian and cyclist facilities between Sydenham and Bankstown. The Walking and Cycling Strategy must be prepared in consultation with relevant council(s), local bike user groups and relevant stakeholder(s). Identified opportunities and works, where relevant, must be integrated with the relevant Station Design and Precinct Plan(s). Works that are identified as being the responsibility of the Proponent, including those associated with east- west pedestrian and cyclist facilities must be delivered within twelve (12) months following commencement of Operation.	Section 5 of this CTMP

Applicable Conditions within the Construction Environmental Management Framework (CMEF)

Section	Issue / Description	Document Reference or Response
3.4	Construction Environmental Sub Plans 1. Subject to Section 3.3(b) and Section 3.2(b) the Principal Contractor will prepare issue-specific environmental sub plans to the CEMP and SMP which will address each of the relevant environmental impacts at a particular site or state of the project. Issue specific sub plans will include: a. Soil management; b. Groundwater management; c. Traffic and transport management; d. Noise and vibration management; e. Heritage management; f. Flora and fauna management; g. Visual amenity management; h. Carbon and energy management; i. Materials management; j. Soil and water management;	It is noted that in accordance with the Sydney Metro City and Southwest Sydenham to Bankstown Staging Report, the CTMP is not a sub-plan of the Construction Environment Management Plan, it is a standalone Plan in accordance with CoA-E47

	k. Air quality management; and; l. Waste management and recycling; 2. Additional detail on the minimum requirements for these sub plans is provided in Sections 6-17 of the CEMF.	
3.7	Condition Surveys a. a. Prior to the commencement of construction the Principal Contractors will offer Pre-construction Building Condition Surveys, in writing, to the owners of buildings where there is a potential for construction activities to cause cosmetic or structural damage. If accepted, the Principal Contractor will produce a comprehensive written and photographic condition report produced by an appropriate professional prior to relevant works commencing. b. Prior to the commencement of construction, the Principal Contractor will prepare a Road Dilapidation Report for all local public roads proposed to be used by heavy vehicles.	Section 3.3.2 of this CTMP
3.8	Register of Hold Points • Principal Contractors will identify hold points, beyond which approval is required to proceed with a certain activity. Example activities include vegetation removal and water discharge. Hold points will be documented in relevant CEMPs. • CEMF Table 1.4 provides the structure for the register of hold points as well as a preliminary list of hold points which will be implemented: o Hold Point: use of local roads by heavy vehicles o Release of hold point: Road Dilapidation Report o By Who: Appropriate Professional nominated by Principal Contractor	Section 3.3.2 of this CTMP
3.9	Training, Awareness and Competence a. Principal Contractors will be responsible for determining the training needs of their personnel. As a minimum this will include site induction, regular toolbox talks, and topic specific environmental training as follows: The site induction will be provided to all site personnel and will include, as a minimum: • Training purpose, objectives and key issues; • Contractor's environmental policy and key performance indicators;	Section 1.7.8 of this CTMP

	• Due diligence, duty of care and responsibilities; • Relevant conditions of any environmental licence and/or the relevant conditions of approval; • Site specific issues and controls including those described in the environmental procedures; • Reporting procedure for environmental hazards and incidents; and • Communication protocols. Toolbox talks will be held on a regular basis in order to provide a project or site wide update, including any key or recurring environmental issues; and topic specific environmental training should be based upon, but is not limited to, Issue specific subplans required under Section 3.4 (a)(i-xi). Principal Contractors will conduct a Training Needs Analysis which: • Identifies that all staff are to receive an environmental induction and undertake environmental incident management training; • Identifies the competency requirements of staff that hold environmental roles and responsibilities documented within the Construction Environmental Management Plan and sub-plans; • Identifies appropriate training courses/events and the frequency of training to achieve and/or maintain these competency requirements; and • Implements and documents as part of the CEMP a training schedule that plans attendance at environmental training events, provides mechanisms to notify staff of their training requirements, and identifies staff who do not attend scheduled training events or who have overdue training requirements.	
3.12	Roles and Responsibilities In relation to Roles and Responsibilities the CEMP will: • Describe the relationship between the Principal Contractor, TfNSW, key regulatory stakeholders, the independent environmental representative and the independent certifier; • For each role that has environmental accountabilities or responsibilities, including key personnel, provide a tabulated description of the authority and roles of key personnel, lines of responsibility and communication, minimum skill level requirements and their interface with the overall project organisation structure; • Provide details of each specialist environment, sustainability or planning consultant who is employed	Section 1.7 of this CMTP

	by the Principal Contractor including the scope of their work; • Provide an overview of the role and responsibilities of the Independent Environmental Representative, the Independent Certifier and other regulatory stakeholders. All sub-contractors engaged by the Principal Contractor will be required to operate within the EMS documentation of that Principal Contractor.	
5.1	Working Hours Standard working hours are between 7am – 6pm on weekdays and 8am – 1pm on Saturdays. Works which can be undertaken outside of standard construction hours without any further approval include: • Those which have been described in respective environmental assessments as being required to take place 24/7. For example, tunneling and underground excavations and supporting activities will be required 24/7; • Works which are determined to comply with the relevant Noise Management Level at sensitive receivers; • The delivery of materials outside of approved hours as required by the Police or other authorities (including RMS) for safety reasons; • Where it is required to avoid the loss of lives, property and / or to prevent environmental harm in an emergency; and • Where written agreement is reached with all affected receivers. Principal Contractors may apply for EPA approval to undertake works outside of normal working hours under their respective Environment Protection Licenses.	Sections 3.1.1 & 3.1.2 of this CTMP
5.2	Principal Contractors will consider the following in the layout of construction sites: • The location of noise intensive works and 24-hour activities in relation to noise sensitive receivers; • The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day; • The use of site buildings to shield noisy activities from receivers;	Section 1.3.4 of this CTMP

	• The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours; and • Aim to minimise the requirement for reversing, especially of heavy vehicles.	
8.1	Construction Traffic Management Objectives 1. The following traffic management objectives will apply to the construction of the project: a. Minimise disruption to traffic operation, road users, pedestrians, cyclists and access to adjoining properties (private and public). b. Maximise the safety for the workers, by isolating work areas from traffic flows, applying low exposure work methods, education and the installation of appropriate traffic control. c. Limit obstructions and restrictions, and when required, provide alternatives to maintain access for local community, transport operators (buses) including over-dimension load movements and commercial developments. d. Encourage sustainable transport options by site workers.	Section 1.2 of this CTMP
8.2	Construction Traffic Management Implementation 1. Principal Contractors will develop and implement a Construction Traffic Management Plan for their scope of works. The Construction Traffic Management Plan will as a minimum: a. Implement the traffic and transport mitigation measured as detailed in the environmental approval documentation. b. Be developed in consultation with the relevant road authority, Central Business District Co-ordination Group (CBDCG) and / or transport operator. c. Set out the overall traffic management resources, processes and procedures for the management of traffic and transport during construction of the Project Works and Temporary Works. d. Include Construction Traffic Control Plans setting out the specific traffic and transport management arrangements to be implemented at specific locations during the construction of the Project works and Temporary Works.	Section 1.1 Section 3.2 Section 4.2.4 Section 7

2. Includes a Traffic Route Management Plan that identifies:
    a. Traffic generation from other major infrastructure developments, impacts from traffic and haulage routes.
    b. Types and volumes of construction vehicles and associated route and times restrictions.
    c. Potential traffic disruptions and temporary and permanent detours, and
    d. Management, mitigation and restoration measures.
3. Includes a Parking Management Plan that identifies:
    a. Parking requirements and on and offsite parking arrangements and associated impacts
    b. Remote parking arrangements and associated access between sites and public transport nodes
    c. Alternate parking arrangements for displaced parking, and
    d. Communication and parking management measures.
4. Includes Site Specific Traffic Access and Management Plans which detail:
    a. Site access and associated route and turning movements and the design and signalisation of intersections
    b. Potential activities that could result in the disruption to traffic and transport networks including pedestrian, cyclist and public transport networks and during special events.
    c. The timing to limit disruptions to the road and transport networks.
    d. The maintenance of access to and safety of transport networks, parking and property.
    e. Service facilities and station sites, and other locations identified by the relevant road authority or transport regulator.
    f. Details responses to the management of an event that directly involves or impacts on traffic and transport networks.

Transport for New South Wales (TfNSW) and its contractors will undertake liaison with agencies and the community

	regarding traffic management. This may involve: 5. Establishment of a Traffic and Transport Liaison Group which could consist of representatives from Sydney Metro Contractors, TfNSW, CBDCG, WestConnex, RMS, NSW Police, relevant councils, emergency services, and bus operators the group would review: 6. Road Occupancy Licence (ROL) applications to monitor potential cumulative impacts from multiple ROL's operating concurrently in one area.	
8.3	Construction Traffic Mitigation 1. Examples of traffic mitigation measures include: a. Minimising heavy vehicle movements during peak traffic times. b. Avoidance of local road for heavy vehicle routes, where feasible. c. Providing safe pedestrian and cyclist movements around the worksites.	Section 1.5 Section 3.3 Section 5 of this CTMP

Applicable Conditions within the Sydney Metro H&S Standard

Section	Issue / Description	Document Reference or Response
13.5	The PC must manage the risks associated with working in and around live traffic in accordance with the Sydney Metro Construction Traffic Management Framework. The PC must develop a Traffic Management Plan which will include a procedure for working on or near public roads including the development, review, approval and implementation of Traffic Control Plans (TCPs)/Traffic Control Guidance Schemes (TCGSs) for specific activities involving work on or near public roads. As a minimum requirement, the PC must ensure the following when working in and around live traffic: • Traffic Management Plans (TMPs) must be developed by a person that holds the RMS approved Prepare Work Zone Traffic Management Plan certificate of competence. • Where there is a risk of workers from being struck by live traffic, temporary road closures and detours must be considered as the first option to eliminate the hazard of moving traffic. • Temporary traffic signalling devices must be used to control traffic movements as per AS1742.3 and mitigate the risks to workers (including traffic	CTMP Author – Louis Peau Prepare Work Zone TMP Qualification: 0051923852 EXP 14/02/2022 Section 4 of this CTMP

	controllers) of being struck by moving traffic. • Where the use of traffic controllers is deemed reasonably practicable, traffic controllers must hold an RMS approved Traffic Controller's license (formerly known as the Blue Card – Stop/Slow bat). • Traffic controllers and workers on the road must be provided with physical protection from the risk of being struck by out-of-control vehicles using preferably road safety barriers compliant to AS3845 accepted by RMS for use on NSW Roads (and compliant with AS 3845), or engineer-certified crash attenuators (e.g. Truck and Trailer Mounted Attenuators) fitted to shadow vehicles. • Where crash attenuators are used, they must be used in accordance with the National Guidelines for the use of Truck and Trailer Mounted Attenuators (TMAs). • All signage must be installed in accordance with the relevant TCP/TCGS and must be inspected at the frequency specified in the CTMP. • In addition to the minimum required PPE as specified in the section of this Standard, entitled Personal Protective Equipment (PPE), Traffic Controllers must wear high visibility clothing with trousers fitted with double-reflective stripes or reflective boot covers in accordance with Section 8 of AS 4602. • Sufficient traffic controller workers must be engaged so that the traffic controllers may rotate and have breaks. • Traffic controllers working at night must carry illuminated wands to direct traffic.	

Applicable Conditions within the SWM Marrickville, Canterbury & Lakemba Station Upgrades CMEP Rev 2 (04/12/2020)

Section	Issue / Description	Document Reference or Response
4.6	Construction Traffic Management Plan/s (CTMP/s) will be prepared by the Principal Contractor as per CoA E47. These are standalone documents and do not form part of the CEMP. The CTMP/s will be submitted to DPIE for information following engagement with RMS (TfNSW) and SCO (CJP).	Section 7 of this CTMP

1 Introduction

1.1 Purpose

The purpose of this Construction Traffic Management Plan is to ensure the safety of the public and maintain an accessible and efficient road network for all road users.

This document has been prepared to assist Haslin Stephen Edwards Joint Venture (HSEJV) staff to implement traffic and pedestrian/passenger management control measures when carrying out construction and related works located at the Southwest Metro Upgrade (Notably package 4 - Canterbury, Lakemba and Marrickville stations). This Construction Traffic Management Plan (CTMP) has been prepared to meet condition E47 of the Ministers Conditions of Approval.

The term “traffic” wherever used within this CTMP, encompasses all applicable vehicle and pedestrian traffic. A vehicle is defined as a motor vehicle, bus, truck, motorcycle and bicycle.

Traffic management shall be undertaken in a manner that shall provide for the safety of all HSEJV staff, subcontractors and the public and ensure road users are not exposed to foreseeable risks. The aim of the plan is to understand the works involved, the specific work locations and determine the traffic management requirements to mitigate the associated impact, if any, resulting from the works to complete the SWM project.

As per CoA-E46 this CTMP is written in accordance with the CMEF, relevant Austroads, Australian Standards and Transport for New South Walked (TfNSW) requirements. This CTMP will be submitted to TfNSW following engagement with the Sydney Coordination Office and before Construction commences at the relevant construction site or state. A copy of the CTMP will be submitted to the Planning Secretary for information.

HSEJV understands the similarities and particulars of each station and recognize the need to have a consistent approach to ensure a high level of safety and compliance. The intention for this CMTP is to act as the overarching Traffic Management Plan (TMP) for all three stations (Canterbury, Lakemba and Marrickville).

Additional Station Specific Traffic Management Plans (Temporary Transport Management Plans as per CoA E48) will be submitted for each station / stage of works one month prior to implementation. These Station Specific Traffic Management Plans will explain the traffic management strategies presented in this CTMP in greater detail.

1.2 Objectives

The following traffic management objectives will apply to the construction of the project:

- Minimise disruption to traffic operation, road users, pedestrians, cyclists and access of adjoining properties (private and public);
- Maximise the safety for both workers and the public, by isolating work areas from traffic flows, applying low exposure work methods, education and installation of the appropriate traffic control;
- Limit obstructions and restrictions, and when required, provide alternatives to maintain access for local community, transport operators (buses) including over-dimensional load movements and commercial developments; and
- Encourage sustainable transport options by site personnel.

1.3 SWM Package 4 Scope of Works

Sydney Metro City & Southwest (C&SW) includes a new 30km metro line extending the metro rail from the end of Sydney Metro Northwest at Chatswood, under Sydney Harbour, through new CBD stations and southwest to Bankstown. It is due to open in 2024 with the ultimate capacity to run a metro train every two minutes each way through the center of Sydney.

Sydney Metro C&SW will deliver new metro stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo and new underground metro platforms at Central Station. In addition, it will upgrade and convert all 11 stations between Sydenham and Bankstown to metro standards.

The Sydney Metro Station Upgrade Works Package 4 encompasses works at: Marrickville Station, Canterbury Station and Lakemba Station

This document is the CTMP, which aims to manage and mitigate the impacts of construction traffic, road works, bridge works and sets out the responsibilities and strategies involved in providing a safe environment for all road users.

All workers, employees, subcontractors, employers and the management team, involved in the construction of the project shall adhere to this CTMP.

Construction works under this CTMP will commence once the CTMP has been approved. Additional Station Specific Sub Traffic Management Plans will be submitted for each station / stage of works and will explain the traffic management strategies presented in this CTMP in greater detail.

A locality map of each station is shown below (Figure 1 – 3).

1.3.1 Canterbury Station Scope of Works

- Refurbish and repurpose rooms of existing concourse booking office, platform building 1 and 2;
- Remove existing stair & canopy to Platform 1. Provide a new lift & stair to Platform 1 including associated canopies;
- Regrade platform as per Sydney Metro's requirement and provide drainage, platform screen doors, platform edge screens and mechanical gap fillers to Platform 1 and 2;
- Provide a new lift to platform 2 including associated canopies;
- Construction of the Sydney Metro Services Building;
- Provide new security gates to concourse entry;
- New cabling and containment for LV services and lighting;
- Clad the southern side of station concourse booking office and refurbish the building. Provide a new opening onto Canterbury Road for existing retail;
- Remove the existing planter beds to Broughton Street;
- Remove the canopy directly over the existing planter bed facing Broughton Street;
- Remove existing brick retaining wall from station concourse forecourt entry adjacent to Canterbury road;
- Provide accessible entries from both Canterbury Road and Broughton Street to station concourse;
- Replace the existing vertical protection (anti-throw) screens to the station concourse bridge;
- Renew lighting to the concourse, footbridge, platform buildings, platforms and ramp to Platform 2;
- Repair the existing booking office roof and associated stormwater system. Repaint, repoint and repair existing platform buildings;

- Replace existing balustrade on Platform 2 ramp and continue new fencing to platform building 2 with new. Resurface asphalt finish to Platform 2 ramp and contain asphalt edges with steel flat bar;
- Installation of new CSR cable route;
- Installation of security and segregation fencing;
- Canterbury Road bridge parapet works (city and country side); and
- Replacement of existing bus shelters on Broughton Street.

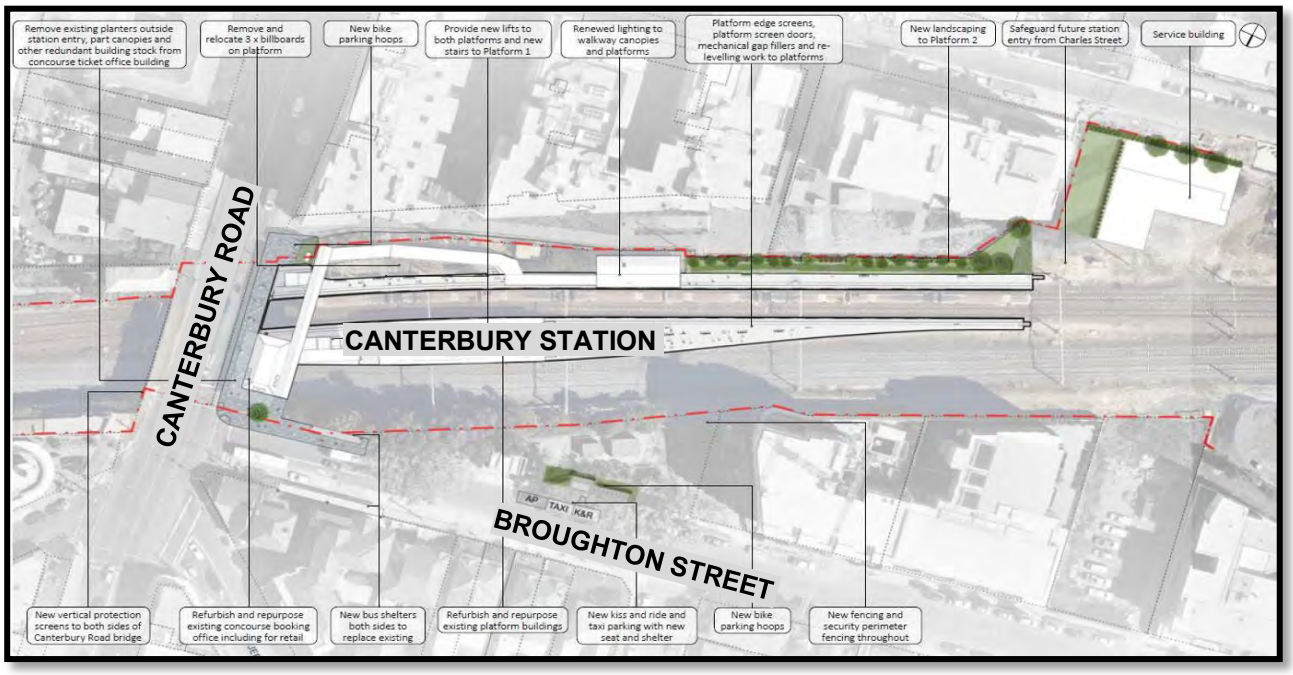


Figure 1 – Canterbury Station

1.3.2 Lakemba Scope of Works

- Refurbish and repurpose rooms of existing platform buildings;
- Refurbish concourse area;
- Construction of the Sydney Metro Services Building;
- Regrade platform as per Sydney Metro's requirement and provide drainage, platform screen doors, platform edge screens and mechanical gap fillers to Platform 1 and 2;
- New cabling and containment for LV services and lighting;
- Installation of new glass screens to existing concourse and footbridge;
- Provide new landscaped plaza at Railway Parade including additional bicycle hoops and feature paving;
- Installation of new vertical protection screens to both sides of the existing Haldon Street Bridge;
- Minor refresh of existing entry concourse stairs;
- Installation of new CSR cable route; and
- Installation of security fencing.

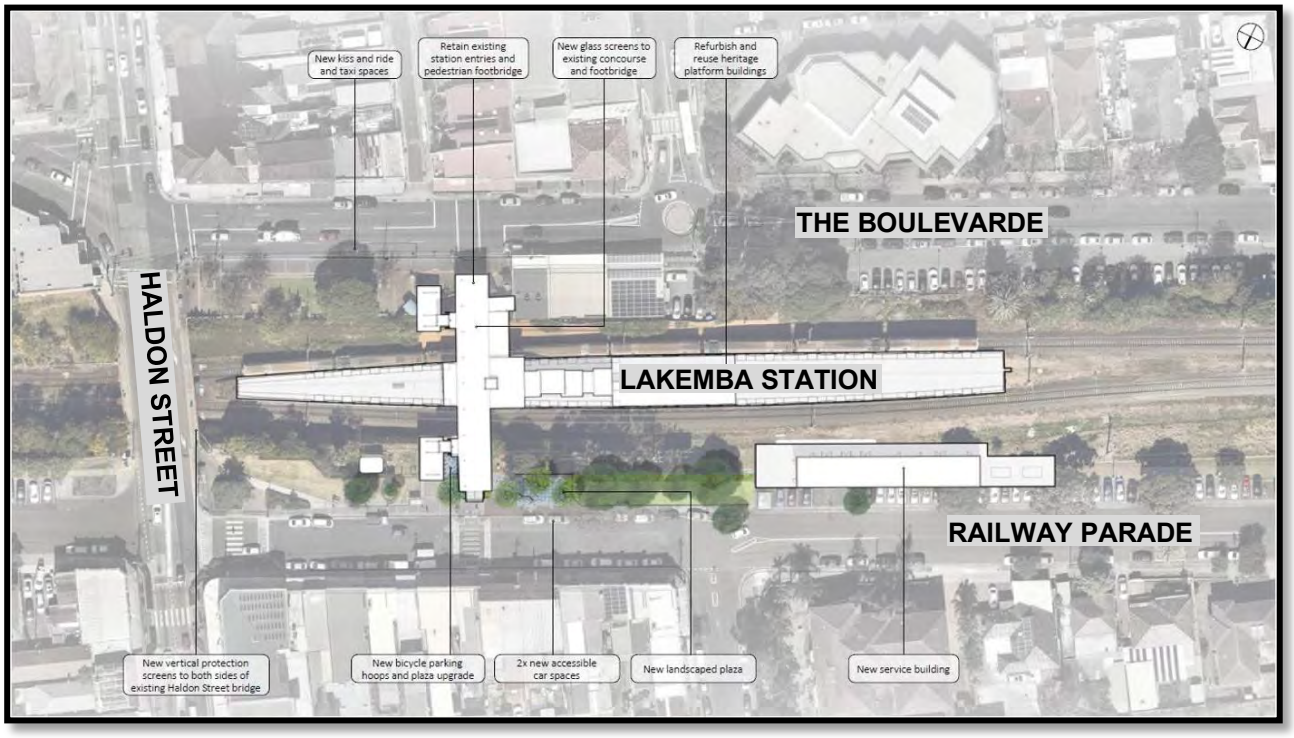


Figure 2 – Lakemba Station

1.3.3 Marrickville Station

- Repurpose and refurbish station rooms in Platform Buildings 1 and 2. Achieve final state of fit out, room performance and services as indicated;
- Regrade platform as per metro's requirement and provide drainage, platform screen doors, platform edge screens and mechanical gap fillers to Platform 1 and 2;
- Retain existing fixed-location readers (FLR's) to concourse;
- Existing finishes to match the existing;
- Installation of security and segregation fencing;
- New Platform coping edge, new drainage and regrading platform to suit Sydney Metro requirements;
- New Anti-Throw Screens to Illawarra Road Bridge;
- Widening of the existing footpath from station street to Charlotte Avenue, adjustments to the security fence location and provision of smart poles for the station entry;
- Construction of the Sydney Metro Services Building;
- Installation of new Combined Services Route (CSR) cable route (including track under bores and cable bridge structure);
- New cabling and containment for low voltage (LV) services and lighting; and
- Cable containment for communications containment.

Figure 3 – Marrickville Station

1.3.4 Compound Setup

Principal Contractors will consider the following in the layout of construction sites:

- The location of noise intensive works and 24-hour activities in relation to noise sensitive receivers;
- The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day;
- The use of site buildings to shield noisy activities from receivers;
- The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours; and
- Aim to minimise the requirement for reversing, especially of heavy vehicles.

1.4 Review and Update

This CTMP will be submitted to the TfNSW following engagement with Customer Journey Planning (CJP), relevant council and stakeholders before Construction commences at the relevant construction site or state. A copy of the CTMP will be submitted to the Planning Secretary for information.

1.5 General information

Due to the residential nature of some of the surrounding streets, queueing and idling of heavy vehicles will not be permitted. This shall be management by engaging competent suppliers and scheduling heavy vehicle movements. Vehicles may only wait inside the worksite.

Vehicles are to be managed to minimise the use of residential streets to gain access to work sites or compounds, and to minimise vehicle movements near schools, particularly during start and finish times.

Access for residents, buses, and community infrastructure is to be maintained. If this is not possible, consultation is to be undertaken with the affected owners and occupants in line with the Community Consultation Strategy (see section 7 of this CTMP).

Swept path analysis reveals that all access gates are suitable for the largest anticipated vehicle (12.5m single unit truck). In the event a larger vehicle requires access into each site, route analysis details will be included in the applicable station specific TMP.

1.6 Key Personnel

HSEJV have elected to deploy three individual delivery teams to manage the required construction at each station upgrade. Tables 1-3 list the key personnel involved with each station upgrade within the SWM Package 4 works.

Lakemba Station		
Position	**Name**	**Phone Number**
Project Director	Chris Hammond	0400 063 398
Senior Project Manager	Celso Paiva	0499 013 312
Project Manager	James Chia	0433 405 523
Traffic Engineer	Sairam Pilli	0428 196 077

Table 1 – Lakemba Station Key Personnel

Canterbury Station		
Position	**Name**	**Phone Number**
Project Director	Chris Hammond	0400 063 398
Senior Project Manager	Celso Paiva	0499 013 312
Project Manager	Vitor Reis	0447 124 014
Traffic Engineer		

Table 2 – Canterbury Station Key Personnel

Marrickville Station		
Position	**Name**	**Phone Number**
Project Director	Chris Hammond	0400 063 398
Senior Project Manager	Daniel Brazdil	TBA
Project Manager	Brad Mulligan	0425 330 991
Traffic Engineer		

Table 3 – Marrickville Station Key Personnel

1.7 Roles and Responsibilities

All traffic management will be undertaken by accredited designers, experienced managers and qualified controllers. Traffic management controls implemented across the Project will be monitored 24 hours per day 7 days per week for the duration of construction. The HSEJV responsibilities for personnel attached to each of the key positions are listed below.

1.7.1 Project Director (PD):

The Project Director will support the station project teams in complying with the traffic management requirements associated with the Project including:

- Ensuring sufficient traffic management resources are made available and allocated to the Project;
- Driving an 'incident and injury free' culture in all areas of construction and traffic management; and
- Ensuring quality assurance procedures are maintained in accordance with project requirements;

1.7.2 Senior Project Manager (SPM):

The Construction Manager will support the station project teams in his duties, including:

- Facilitate efficient and timely communication between the construction team and the traffic personnel;
- Work closely with the station personnel to ensure site layouts are planned to achieve efficient and safe on-site plant, equipment, traffic and pedestrian movements; and
- Ensure construction activities requiring traffic management are identified in good time to permit the necessary planning, approvals, implementation and administration to be undertaken in accordance with the CTMP & station specific TMP's;

1.7.3 Project Manager(s)

Each Project Manager will be responsible for the long and short-term temporary Traffic Management their station upgrade. In addition, the PM will:

- Identify and commission each station and site specific TMP's in a timely manner;
- Enforce the G10 requirements;
- Communicate with project stakeholders regarding traffic matters (CJP, TfNSW, CJM, Sydney Metro);
- Oversee the station compliance with the provisions of this document (CTMP), station specific TMP's and ensure the traffic management objectives of the project are achieved;
- Implement, monitor and review all station specific TMP's;
- Attend traffic-related meetings (TCG / TTLG / LTC);
- be responsible for the implementation of ROLs and must continuously monitor the implementation and operation of all road occupancies to ensure that they are compliant with the ROLs, including;
- monitor and quantify the duration of any traffic delays;
- monitor, measure and record traffic queue lengths during ROL operation, including the maximum traffic queue lengths in each direction and the total occupancy or traffic stoppage times;
- maintain and adjust traffic control measures and devices to assist prevailing traffic flows, minimise lane and shoulder occupancies and any lost traffic flow capacity and minimise traffic delay durations and queuing; and
- monitor over-dimension heavy vehicle movements.

1.7.4 Traffic Engineer:

The Traffic Engineer's responsibilities during construction are as follows:

- Assist the Project Manager with TCP implementation and review of effectiveness within their work areas;

- Obtain and maintain all necessary approvals and ROL's for the TCP's as necessary;
- Direct and assist the field staff in the application of the CTMP;
- Ensure that only adequately trained and qualified personnel are engaged or are available to undertake operations and maintenance duties;
- Be familiar with and have access to the lists prepared by the Traffic Fields Crews of personnel, equipment and emergency service representatives;
- Be familiar with and undertake the instruction of personnel in the operational aspects of the CTMP and the Incident Response Plan;
- Ensure all traffic management personnel, plant and equipment are available in a timely manner to meet the requirements of the construction program;
- Develop work methods to ensure utmost consideration is given to providing a safe working environment for employees as well as addressing the safety of road users and the general public;
- Undertake briefing of field staff responsible for the carrying out of traffic management and emergency response activities; and
- Investigate with the Project Manager, all traffic incidents and community concerns which relate to traffic matters.

1.7.5 Traffic Control Supervisor (Subcontractor)

HSEJV will appoint a traffic control supervisor for each station upgrade which will provide the resource requirements relating to the traffic management field crews (including incident assistance) and the routine management & maintenance of traffic control facilities.

The Foreman's responsibilities during construction are as follows:

- Report to the Project Manager;
- Comply with G10 requirements;
- Implement and monitor station specific TMP's;
- Coordinate and supervise sub-contractors deployed for TMP/TCP implementation;
- Manage Traffic Controllers at all work sites;
- Ensure that traffic control facilities are maintained and monitored throughout the Works;
- Work cooperatively with other incident response or emergency services when required;
- Be available to receive regular briefings on the implementation of the CTMP and toolbox meetings;
- Respond to incidents on the road network affected by the construction works taking advice from the Emergency Responders and TfNSW;
- Monitor road occupancy licence conditions daily for compliance including:
    - Monitoring traffic delays and general conditions;
    - Monitoring traffic queue lengths and total stoppage times;
    - Maintaining and adjusting traffic control measures to assist prevailing traffic flows; and
    - Monitoring of over-dimensional heavy vehicle movements;

1.7.6 Traffic Controllers / Traffic Field Crews

Personnel will be allocated to provide the following functions during the construction period:

- Project-wide traffic control duties (not related to a specific area or zone) including but not limited to:
    - Respond and attend to unplanned incidents across the project;
    - Ensure all relevant signs and devices are in place before starting traffic control;
    - Wear high visibility clothing and carry their traffic control identification;
    - Maintain an approved logbook to record experience gained as a trainee Traffic Controller;
    - Not obstruct drivers' view of or be partially hidden by other road signs and devices;
    - Give definite and clear signals to public and construction traffic;
    - When two traffic controllers are used, be visible to one another or have radio communication so the flow of traffic from each direction can be coordinated;
    - Traffic will be held only to allow single HV movements to be made and then released; and
    - Follow all other relevant procedures and requirements contained in the relevant TCP or JSA/SWMS for the activity undertaken.
- Assist the Foreman to undertake their duties to the satisfaction of the CTMP;
- Utilise resources provided by the Foreman to undertake routine and periodic maintenance of long-term traffic management and control facilities; and
- Undertake the reporting and auditing requirements of Section 6 of TfNSW Traffic Control at Worksites manual;

1.7.7 Safety Officer:

- Report any identified workplace health and safety concerns to the PM;
- Liaise with PM on traffic management incidents within the Project boundaries;
- Refer all road safety issues to the PM;
- Advise workers in safety work methods specific to traffic management operations;
- Assist with workplace safety aspects of TCP design and implementation, as necessary;

1.7.8 All Other Persons

All other persons carrying out work activities on or immediately adjacent to the site shall:

- Always take reasonable care for their safety and that of those around them;
- Follow the applicable requirements contained in this document;
- Prior to proceeding with any work, contact their supervisor or a HSEJV Site Management;
- Team member for clarification of any requirement applicable in this document, and any other relevant permits, plans or approvals;
- Provide appropriate notification of deliveries to the nominated Site Contact;
- Wear high visibility vest or shirt where required under this document;
- Always obey the applicable road rules for pedestrians, riders, and drivers;
- Always follow safe driving practices, including using the correct thoroughfare in accordance with any posted speed limits and safety requirements in a manner that does not put at risk their safety or that of any other persons (e.g. passengers, fellow workers, or members of the public);

- Always avoid creating any form of safety hazard or unreasonable delays when parking or parked. Any workers associated with the site must park their vehicles wholly within the site boundaries; and
- Workers associated with the site will not occupy public on-street parking spaces.
- Principal Contractor
- Principal Contractors will consider the following in the layout of construction sites:
- The location of noise intensive works and 24-hour activities in relation to noise sensitive receivers;
- The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day;
- The use of site buildings to shield noisy activities from receivers;
- The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours; and
- Aim to minimise the requirement for reversing, especially of heavy vehicles.

1.7.9 Training Needs and Requirements

- The Principal Contractor is responsible for training needs and requirements of their personnel. The minimum requirements are:
- Site induction;
- Regular Toolbox Talks;
- Topic specific environment training;

The site induction is to be provided to all site personnel. This must include, as a minimum:

- Training purpose, objectives and key issues;
- Contractor's environmental policy and key performance indicators;
- Due diligence, duty of care and responsibilities;
- Relevant conditions of any environmental licence and/or the relevant conditions of approval;
- Site specific issues and controls including those described in the environmental procedures;
- Reporting procedure for environmental hazards and incidents; and
- Communication protocols.

Toolbox talks will be held on a regular basis in order to provide a project or site wide update, including any key or recurring safety & environmental issues. Personnel will be briefed on Station specific TCP's, VMP's, PMP's & TMP requirements during both site induction and regular toolbox talks.

1.7.9.1 Sydney Metro Industry Curriculum (SMIC)

HSEJV is also aligned with the Sydney Metro Industry Curriculum (SMIC) and is committed to improving the skills and competence within the industry. HSEJV will ensure that project personnel that fall within the SMIC identified critical skills, attend the required mandatory training. In regard to the SWM Package 4 works, this training will apply to personnel involved with:

- Civil Construction
    - All Civil Construction workers with less than 2 years experience in the industry are required to complete the Civil Construction Introduction Skills course. This course will be required to be completed prior to commencement to Site.

- All Pre-cast Fabrication workers are required to complete the Civil Construction Introduction Skills course. This course will be required to be completed prior to commencement to Site.

- Heavy haulage
  - All workers identified as Frequent Heavy Vehicle Drivers will be required to participate in Heavy Haulage Introduction Skills. This course will be required to be completed prior to commencement.
- Those in Supervisory positions
  - All workers who act as a Supervisor in Defined Occupations or as a Worksite Protection Officer will be required to complete leadership training.
- Rail
  - All workers who provide Worksite Protection will be required to complete the Rail Introduction Skills course. The Rail Introduction Skills course will be required to be completed prior to commencement to Site.
- Cultural Awareness
  - All workers who act as a Supervisor in Defined Occupations or as a Worksite Protection Officer will be required to complete the Cultural Awareness Training.
- Demolition
  - All Demolition workers who have less than 26 weeks of demolition industry experience are required to complete the Demolition Introduction Skills. This course will be required to be completed prior to commencement to Site.
  - All Demolition workers who have more than 26 weeks of demolition industry experience are required to complete the Demolition Experienced Worker course. This course will be required to be completed prior to commencement to Site.
  - Demolition Supervisors are required to complete Demolition Nominated Supervisor course. This course will be required to be completed prior to commencement to Site.

1.8 Proposed Timing and Duration

This CTMP will be in use for the entire duration of the SWM Package 4 works, which is planned to start by March 2021 and current scope set to complete by 20 April 2022. Construction works under this CTMP will commence once the CTMP has been approved.

2 Traffic Management Documents

2.1 Construction Traffic Management Plan (CTMP)

This HSEJV CTMP for the SWM package 4 works represents an overarching impact mitigation statement as required by the CoA, CMEF, CEMP & G10 specification. It explains the management of the road environment within and around the project boundaries for the entire time the project has a presence on those roads. Each control strategy is implemented in compliance with NSW legislation and TfNSW technical requirements.

2.2 Station Specific Traffic Management Plan (TMP)

Station specific Traffic Management Plans (TMP) conforming to AS 1742.3 and the TfNSW Traffic Control at Worksites Manual will be developed for each stage of works. These plans will contain additional written details describing the nature of the works as well as traffic and stakeholder impacts. These TMP's are

prepared by following a risk management process considering all essential strategies in an ordered way. TMP's are developed with the following priorities in mind:

- Safety of workers;
- Safety and convenience of road users; and
- Maintaining traffic flow

2.3 CTMP & Station Specific TMP Process

As displayed in the diagram below, the CTMP & Station Specific TMP arrangements and procedures for the project will be documented in the following key levels shown in Figure 4 below (blue highlights).

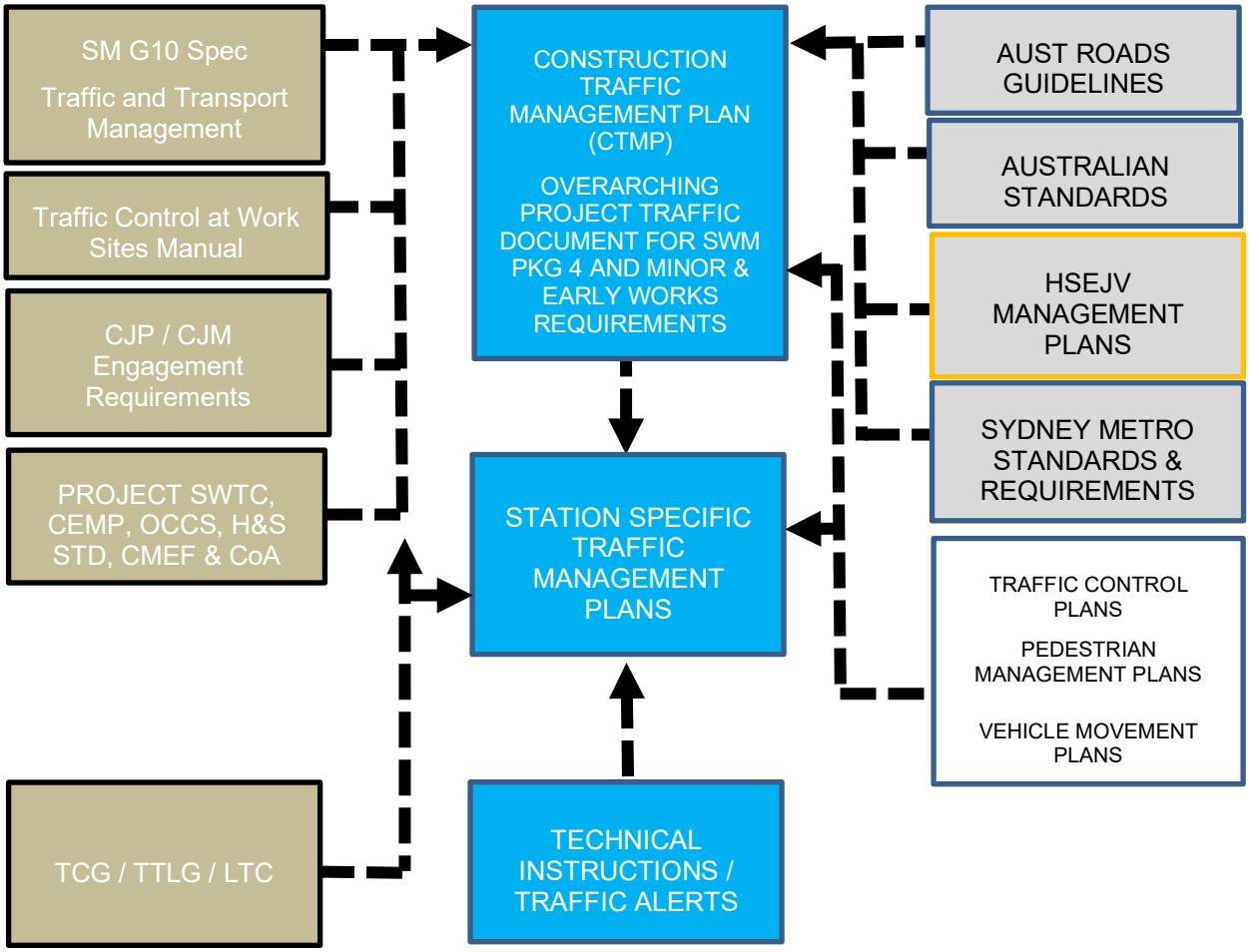


Figure 4 - Document hierarchy flowchart

2.4 Change Management

Amendments to this CTMP and/or Station Specific TMP's may be required to address changed conditions, circumstances or procedures. These changes will be discussed in within the TCG before being submitted to Customer Journey Planning (CJP), relevant Local Councils and others (as required) for review, feedback and approval of the changes.

Each new revision to the plan(s) will be distributed to all relevant stakeholders with an instruction that the

superseded copy be destroyed or marked as superseded. The revision number is included at the end of the document number, which is noted on each page. When amendments occur, the document or relevant section will be reissued with the revision number updated accordingly.

2.5 Traffic Control Plans (TCP)

Site specific TCP's will be submitted with each station specific TMP. However, some low impact early & minor works are necessary at each site prior to the station specific TMP's being approved. These have been included within this CTMP in Appendix A. TCP implementation details are included within section 5 (Early & Minor Works Scope) of this CTMP.

See Appendix A for the TCP's proposed to be installed for the Canterbury Station early investigation works.

Records will be maintained of:

- All traffic control plans, including dates and times the plans were erected and removed;
- Any adjustments made to such schemes; and
- Inspections.

All inspections will obey guidelines provided in AS 1742.3. Three inspection types identified as part of this process are:

- Pre-start, during work and pre-closedown inspections of traffic control layout (daily, by Field Supervisor);
- Inspect the traffic control layout on the day before work begins, and weekly inspections (Traffic Representative); and
- Undertake traffic control safety audit at least once a month (Traffic Representative).

All documentation will be maintained in regard to all Traffic Control Plans and any modifications to them, along with dates, times and reasons for their inclusion and exclusion.

2.6 Vehicle Movement Plans (VMP)

Where applicable, HSEJV will provide a VMP showing the preferred travel paths for work vehicles entering, leaving or crossing the through traffic stream during the single shift of operation.

The VMP will clearly show vehicle entry and exit points into the work areas and indicate clearly that these are the only points where interface with the through traffic is permitted. A VMP may be combined with or superimposed on a TCP.

For long term vehicle movements, particularly heavy vehicles, HSEJV will attach a VMP as an Appendix to the Station Specific TMP submission. This VMP will show the daily routes to and from the work site avoiding small council roads where practicable.

Early & minor works VMP's for Canterbury & Marrickville stations are attached in Appendix B. The Lakemba Station VMP will be presented in a separate site-specific establishment TMP.

2.7 Pedestrian Movement Plans (PMP)

Where applicable, HSEJV will provide a PMP together within each of the TCP's, showing the allocated travel paths for workers or pedestrians around or through the Site, including all signs and devices used to guide the workers or pedestrians.

3 EXISTING CONDITIONS

3.1 Canterbury Station

Canterbury station is situated on Canterbury Road which is a major arterial route that runs east/west between Clemton Park and Dulwich Hill. Canterbury Road connects to Fairford Road and King Georges Road which are main feeder roads to the M5 motorway. It is predominantly posted at 60km/hr, with a 4 lane, two-way undivided carriageway with no formal cycle lanes. Adjacent to the station is high density housing (apartment complexes) which suggests that high pedestrian volumes are currently experienced in this location. Furthermore, several bus stops are located on Canterbury Road and Broughton Road.

3.2 Lakemba Station

Lakemba Station is situated between Railway Parade and The Boulevarde in Lakemba. Both roads run in an east/west direction with a two lane, two-way undivided configuration and are predominantly posted at 50km/hr. Both roads provide on road parking. Being an “island platform”, the station can be accessed from both Railway Parade and The Boulevarde. Parking facilities, bus stops and zebra crossings exist adjacent to the station. The area contains medium/high density housing which suggests that high pedestrian volumes are experienced in this location. The Haldon Street over bridge (which requires new anti-throw screens) is situated between Railway Parade and The Boulevarde. Haldon street runs in a north/south direction with a four lane, two-way divided configuration and is sign posted at 50km/hr.

3.3 Marrickville Station

Marrickville station is located on Illawarra road which is an arterial road that runs in a north/south direction between the suburbs of Undercliffe and Enmore. Adjacent to the station concourse, Illawarra Road is a 50km/hr two lane, two-way undivided configuration with an additional south bound bus zone. No formal public parking facilities are located on Illawarra road. The station can also be accessed from Station Street which is a one-way kiss and ride facility designed for vehicles under 7m. Like the Canterbury and Lakemba Stations, this area also contains high density housing which suggests a high volume of pedestrian traffic is experienced in this location.

3.4 Council Jurisdictions

All project works fall into the jurisdictions of two councils:

- Canterbury & Lakemba Station are under the Canterbury and Bankstown Council (CBC)
- Marrickville Station is under the Inner West Council (IWC)

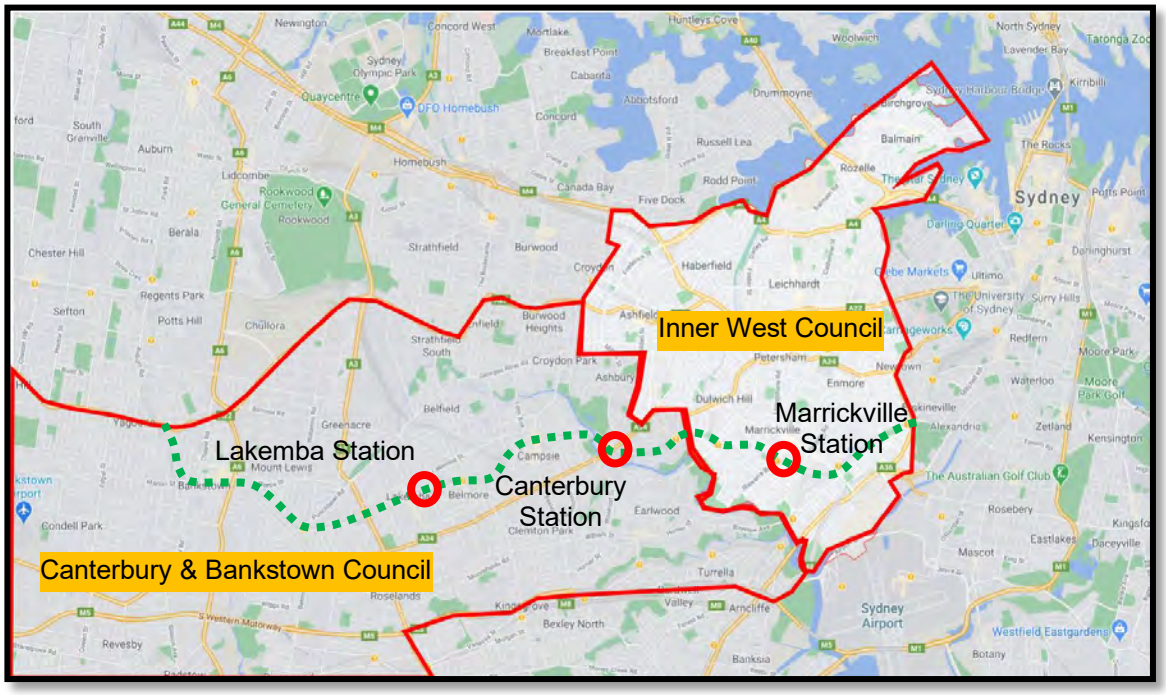


Figure 5 – Council Jurisdictions

4 ANTICIPATED IMPACTS

4.1 Constraints

4.1.1 Work Hours

In accordance with CoA-E 19, vehicle movements associated with Construction works may occur within approved working hours, which is;

- 7am to 6pm Monday to Friday;
- 8am to 6pm Saturday;
- No work on Sunday's or public holidays.

Note – works within the rail corridor are to be undertaken in accordance with Condition O5.1 of Sydney Trains EPL 12208;

- 7am to 6pm Monday to Friday;
- 8am to 6pm Saturday;
- No work on Sunday's or public holidays.

During possession periods, works may be undertaken 24 hours per day, and involve working both during and outside the recommended standard hours. During these periods, the use of high noise intensive equipment would generally be limited of daytime and evening periods (between 7am and 10pm), unless technical constraints exist such as:

- Works requiring a rail shut down;
- Requirements of relevant road authorities, emergency services of the Sydney Coordination Office.

Timing or works relating to Road Closures (including partial/full) may occur outside of standard working

hours, this will be agreed in consultation with the relevant council as part of the road closure approval.

Where delays are experienced during program for whatever reason, out of hours works may be requested with special consideration from the EPL to accommodate recovering program, however the existing program already caters for some delay.

4.1.2 Out-of Hours Emergency Works

CEMF Requirement:

Works which can be undertaken outside of standard construction hours without any further approval include:

- Those which have been described in respective environmental assessments as being required to take place 24/7. For example, tunneling and underground excavation works and other supporting activities;
- Works which are determined to comply with the relevant Noise Management Level at sensitive receivers;
- The deliver or materials outside of approved hours as required by the Police or other authorities (including TfNSW) for safety reasons;
- Where it is required to avoid the loss of lives, property and/or to prevent environmental harm in an emergency; and
- Where written agreement is reached with all affected receivers.

CoA Requirement:

Work may be undertaken outside the above hours under the following conditions:

- For the delivery of materials or other authority for safety reasons; or
- Where it is required in an emergency to avoid injury or the loss of live, to avoid damage or loss of property or to prevent environmental harm; or
- Where different Construction hours are permitted or required under an EPL in force in respect of the CSSI; or
- Work approved under an Out-of-Hours Work Protocol for Work not subject to an EPL as required by Condition E25; or
- Construction that causes LAeq (15 minute) noise levels; or
- Where a negotiated agreement has been reached with substantial majority of sensitive receivers who are within the vicinity of any may be potentially affected by the particular Construction, and the noise management levels and/or limit for ground-borne noise and vibration (human comfort) cannot be achieved. All agreements must be in writing and a copy forwarded to the Planning Secretary at least one (1) week before the commencement of activities.

4.2 Construction Traffic

4.2.1 Construction Traffic Generation

Each site will see an increase in heavy vehicle movements in and out of site during non-possession periods. However, during track possession, station closures or road closures an estimated rate of approximately 40 – 50 truck movements a day in total is predicted. HSEJV will ensure that suppliers and subcontractors are notified of the approved routes in and around each site prior to commencing work on site.

4.2.2 Access and Egress Requirements

To provide safe entry and exit to the worksite from the designated site gates HSEJV will:

- Monitor the number of access points in use (from the rail corridor);
- Ensure the access points nominated can accommodate the turning movement of the largest vehicle that will be accessing the site as required. Swept path analysis reveals that all access gates are suitable for the largest anticipated vehicle (12.5m single unit truck). In the event a larger vehicle requires access into each site, analysis details will be included in the applicable station specific TMP.
- Ensure all access points are clearly visible to approaching traffic and signposted accordingly;
- Coordinate heavy vehicle movements to ensure they do not queue on residential streets but enter through the access gates as soon as possible after arriving.
- Ensure that vehicles will enter and exit the access gates in forward direction only. If this is not possible, traffic control will be implemented to assist.

Segregation of pedestrians and cyclists from site access points will not be feasible. Traffic Control will be utilised to manage this interface. Where required, pedestrians and cyclists will be held briefly to allow safe vehicle movements.

Access points that are existing railway access gates via existing driveways and easements will not need to be modified.

4.2.3 Haulage Routes / Delivery Routes

Haul and delivery truck routes to and from construction sites and access points will be developed in key consideration of minimising impact on local streets and maximising use of arterial roads using Higher Mass Limit (HML) routes as outlined by TfNSW as part of their Intelligent Access Program (IAP) and Restricted Access Vehicle (RAV) routes.

TfNSW has roads and zones throughout Sydney that are approved for RAV and HML for certain heavy vehicles to travel along.

Relevant local councils and/or TfNSW permission is required should construction vehicles greater than the allowable load limit require access to roads containing restrictions. These haulage routes must be approved by the TfNSW following endorsement by Sydney Coordination Office and consultation with the TTLG. The routes are available in in Appendix B – Vehicle Movement Plans.

4.2.4 Canterbury Station

The new access and egress points are proposed at both the Charles Street and Broughton Street compounds. The primary site compound is located on Charles Street, as this location is adjacent to the Sydney Trains lines. The Broughton Street compound is a secondary compound which has been nominated for engineering and administrative staff use only.

Figure 6 – Canterbury Station compound layout (Source: Near Map)

4.2.4.1 Permitted Movements for Construction Vehicles at Canterbury Station

Haulage routes for the works will be carried out via the existing road network. This will see the majority of trucks entering the site from the Charles Street Compound access. The trucks will have the capability turn around within the compound to depart the site and return to Charles Street in a forward direction, which will further reduce the impact on the local road network. Figure 7 shows the public roads which are proposed to be used by construction vehicles (highlighted green). These roads have been subject to a road condition survey.

Figure 7 – Public roads proposed for use by construction vehicles (Source: Near Map)

Canterbury Station Permitted Movements	
Intersection / Access	**Name**
Charles Street Compound	All movements permitted
Charles Street / Canterbury Road	Left in / Left out (light vehicles only)
Broughton Street / Canterbury Road	All movements permitted by signalised intersection
All other intersections	HV's - Left in / left out LV's – all turn movements permitted by intersection

Table 4 – Canterbury Station Table of permitted movements

4.2.5 Lakemba Station

The new access and egress points will be created for compounds on both Railway Parade and The Boulevarde. The construction compound and proposed stockpile area on The Boulevarde will be utilised during possession periods only.

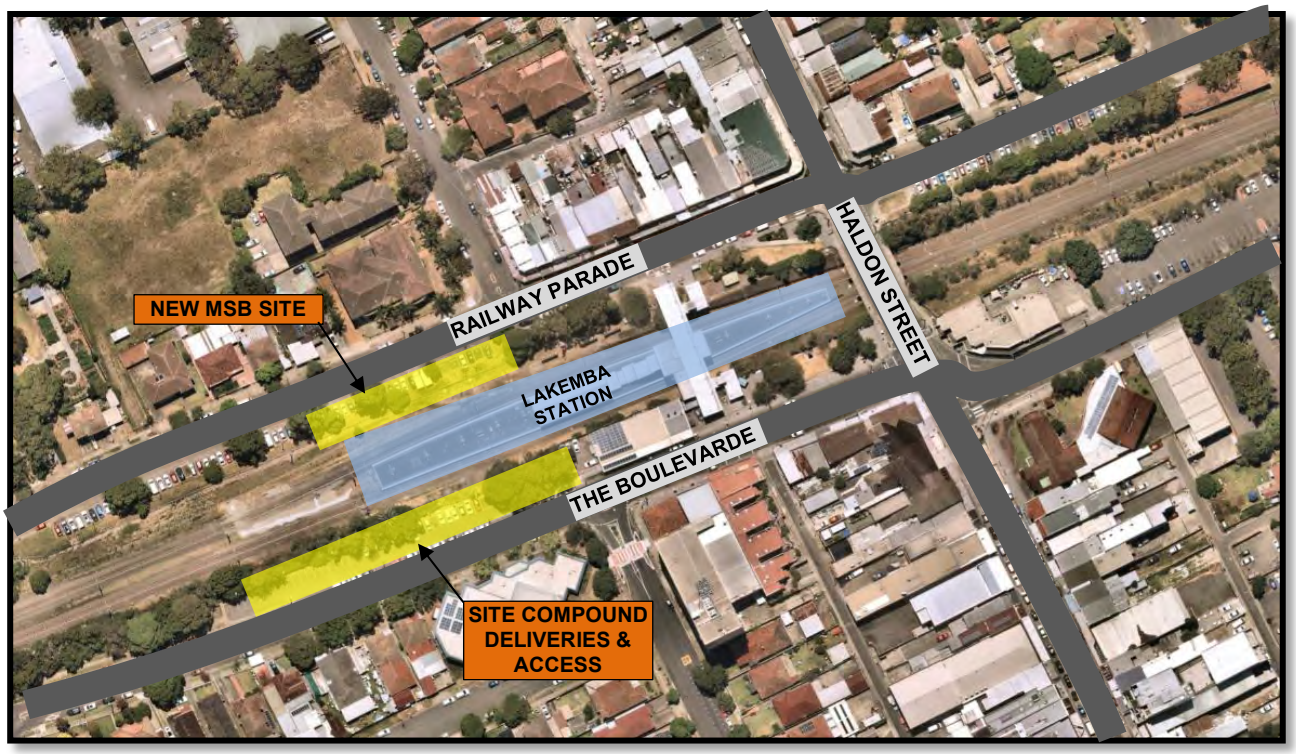


Figure 8 – Lakemba Station compound layout (Source: Near Map)

4.2.5.1 Permitted Movements for Construction Vehicles at Lakemba Station

Haulage routes for the main platform works (during possession periods) will be via the existing road network. Additionally, an internal haulage route (within the rail corridor) will be established to further minimise use of the existing road network. This will see the majority of trucks entering & exiting the site from The Boulevarde stockpile and material compound access adjacent to Dennis Street. Figure 9 shows the public roads which are proposed to be used by construction vehicles (highlighted green). These roads have been subject to a road condition survey.

Figure 9 – Public roads proposed for use by construction vehicles (Source: Near Map)

Lakemba Station Permitted Movements	
Intersection / Access	**Name**
Railway Parade MSB site	All turn movements permitted
The Boulevarde site compound	HV's & LV's - Left in / left out
Haldon Street / The Boulevarde intersection	All movements permitted by signalised intersection
Haldon Street / Railway Parade intersection	Left in / left out
All other intersections	HV's - Left in / left out LV's – all turn movements permitted by intersection

Table 5 – Lakemba Station Table of permitted movements

4.2.6 Marrickville Station

Site access and egress points will be implemented Victoria Road, Riverdale Ave, Station Street and Wooley Lane. The primary site compound is located off Victoria Road, as this location provides easiest access to the Sydney Trains lines. The Riverdale Ave and Wooley Lane accesses are situated on local roads which will not cause adverse impact to network performance. It is proposed that the Station Street access is only utilised during possession periods.

Figure 10 – Marrickville Station compound access (Source: Near Map)

4.2.6.1 *Permitted Movements for Construction Vehicles at Marrickville Station*

Haulage routes for the works will be via the existing road network. This will see the majority of trucks entering the site from the Victoria Road Compound access. The trucks will be able to turn around within the compound to depart the site and return to Victoria Road, which will reduce the impact on the local road network. Figure 11 shows the public roads which are proposed to be used by construction vehicles (highlighted green). These roads have been subject to a road condition survey.

It is noted that a 4.0m head room clearance exists in the under bridge between Victoria Road and Myrtle Street.

Marrickville Station Permitted Movements	
Intersection / Access	**Name**
Victoria Road Compound	Left in / Left out Note: the Marrickville Station delivery team will assess the need for short term traffic control if vehicle movements are in execss of 20 per shift
All other intersections & access points	HV's - Left in / left out LV's – all turn movements permitted by intersection

Table 6 – Marrickville Station Table of permitted movements

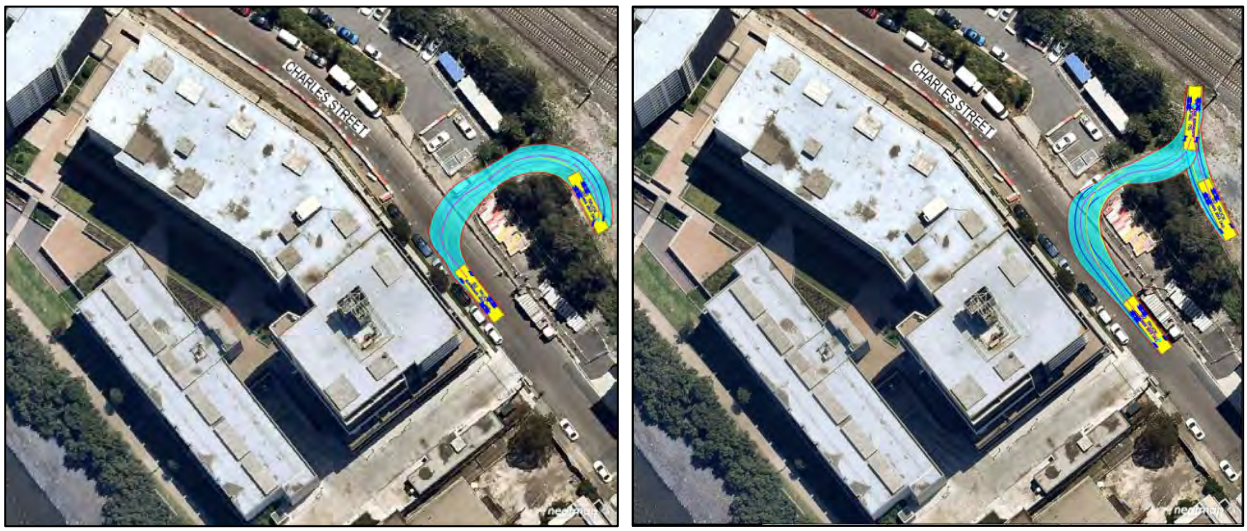
Figure 11 – Public roads proposed for use by construction vehicles (Source: Near Map)

4.2.7 Swept Path Analysis

Each of the proposed construction access gates at Canterbury Station & Marrickville Station has had swept path analysis conducted to meet the requirements in the CoA. The swept path analysis reveals that all access gates are suitable for the largest anticipated vehicle (12.5m single unit truck). In the event a larger vehicle requires access into each site, analysis details will be included in the applicable station specific TMP.

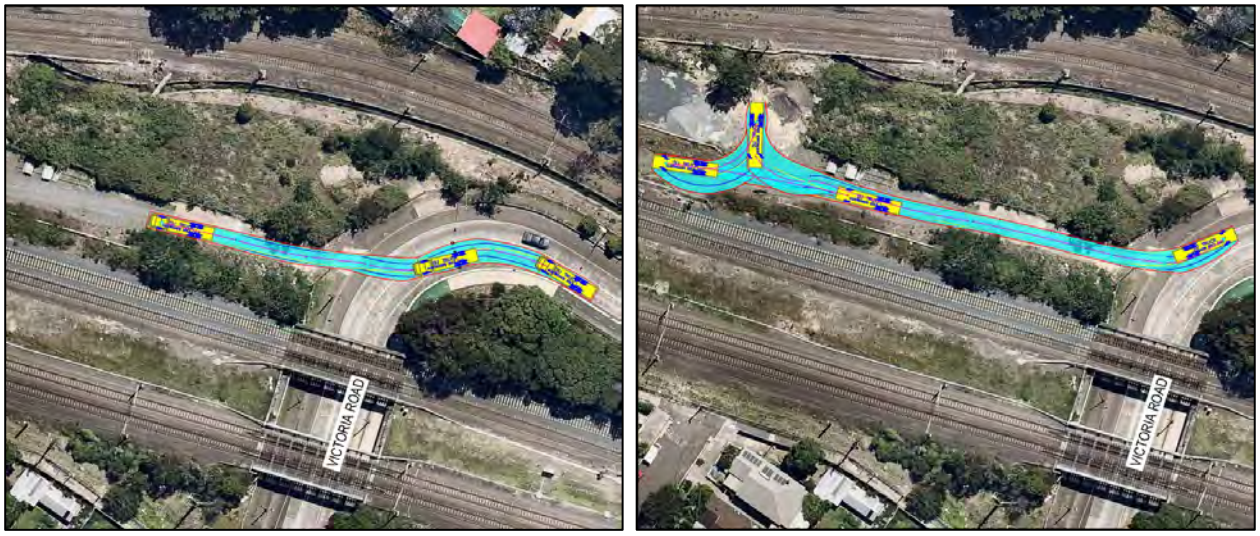
4.2.7.1 Canterbury Station

The Broughton Street / Canterbury Road intersection currently carries buses which are equivalent to the largest anticipated construction vehicle, hence swept paths have not been analysed for that particular intersection. Instead, swept paths have been analysed at the Charles Street compound / rail corridor access.



Figures 12 & 13 – Charles Street Rail Corridor Access – Canterbury Station (Excerpt from LoR/JHG SWMC Early Works CTMP)

4.2.7.2 Marrickville Station



Figures 14 & 15 – Victoria Rad compound access – Marrickville Station (Excerpt from LoR/JHG SWMC Early Works CTMP)

4.2.7.3 Lakemba Station

The road network immediately adjacent to the Lakemba Station falls under the "Local Road" classification which already carries heavy vehicles such as buses and other industrial vehicles. Typically, local roads like those existing adjacent to Lakemba Station (The Boulevarde, Railway Parade & Haldon Street) are designed to cater to a single articulated heavy vehicle (19.0m semi-trailers). HSEJV are aware of this and anticipate the largest vehicles to be utilised will be 12.5m single unit trucks. In the event, larger vehicles are required for the construction of the Lakemba Station upgrades, details and analysis will be provided in the Lakemba station specific TMP.

4.2.8 Traffic Modelling

Traffic modelling would only be necessary when long-term changes to the road network are required due to the project works. The majority of road occupancies from HSEJV are short term and would not require

traffic modelling.

Where long term closures are required (i.e. during the June shut down at Canterbury Station), traffic modelling may be carried out to identify potential impacts to the road network. Such information will be presented in the Station Specific Traffic Management Plans.

4.3 Heavy Vehicles

4.3.1 Oversize Overmass OSOM

Only Canterbury Road is an approved route for OSOM vehicles. If changes to the road network are to occur, these will be presented in a station specific / stage specific Traffic Management Plan. Regardless, the relevant TfNSW & CJM representatives will be notified of any work occurring on the specified OSOM routes to ensure that network performance is optimised.

4.3.2 Road Dilapidation

In order to heavy vehicles to utilise the surrounding road network, a road dilapidation report is required and is to be submitted via a Hold Point. This road dilapidation report is to be completed by a professional nominated by the Principal Contractor.

A copy of this road dilapidation report is to be provided to the relevant council(s) within four (4) weeks of completion of the survey and at least two (2) weeks prior to the road being used by heavy vehicles associated with the construction of the CSSI.

If Damage to local roads occurs as a result of the Construction, the Proponent must either:

- Compensate the relevant road authority for the damage caused. The amount of compensation to be agreed with the relevant road authority.
- Rectify the damage to restore the road to at least the condition it was in pre-Construction as identified in the road dilapidation report(s).

HSEJV have completed a road condition survey of the public roads which are proposed for use by construction vehicles, the table below presents the roads which have been surveyed.

Public Roads Included In Road Condition Survey (Including footpath and road furniture)	
Station	**Street Names**
Canterbury	• Canterbury Road (between Berna Street & Minter Street • Charles Street • Broughton Street • John Street • Robert Street • Close Street
Lakemba	• Haldon Street (between Railway Parade and The Boulevarde) • Railway Parade (including Alice Street North to Moreton Street) • The Boulevarde (between Sproule Street to Moreton Street)
Marrickville	• Illawarra Road (between Warburtn Street and Arthur Street) • Carrington Road • Myrtle Street • Victoria Road

Table 7 – Public Roads Included in the Road Condition Survey

5 EARLY & MINOR WORKS SCOPE

Each station will require traffic control approvals to carry out necessary early and minor works (i.e. utility locations, tree trimming & site establishment). Minor and Early Works are defined as low impact activities that will be undertaken prior to approval of the CEMP. These will be captured within this CTMP until such time that station specific TMP's have been approved.

Sections 5.1 to 5.3 provides details of the early & minor works at each station along with the proposed TCP. These TCP's can be found in Appendix A. It is proposed that these TCP's will be utilised for short term works and will be implemented during off-peak periods.

The implementation of these TCPs will be dependent on approval such as but not limited:

- Relevant Road Authority Approval;
- Minor Works Approval;
- OOHW Works Approval if applicable; and
- Consultation the appropriate stakeholder i.e. Sydney Buses, Sydney Trains and Taxi Council.

5.1 CANTERBURY STATION

TCP REFERENCE	ROAD	PLAN DESCRIPTION
HS-CAN-3001-P1	Canterbury Road	Eastbound Partial Lane closure for service investigation, hoarding installation & removal
HS-CAN-3002-P1	Canterbury Road / Broughton Road	Broughton St Partial Closure for service investigation, tree trimming and delivery of material. ***Consultation with Sydney Buses required prior to implementation***.
HS-CAN-3003-P1	Canterbury Road	Canterbury Rd SB Slow Lane Short Term Closure for service investigation and implementation of temporary works. ***Pedestrian access will be maintained***.
HS-CAN-3004-P1	Canterbury Road	Canterbury Road westbound footpath closure & pedestrian detour for service investigation.

Table 8 – Canterbury Station minor & early works TCP's

5.2 LAKEMBA STATION

TCP REFERENCE	ROAD	PLAN DESCRIPTION
HS-LAK-40001-P1	Railway Parade	Intermittent stoppages for site establishment and delivery of materials.
HS-LAK-40002-P1	Railway Parade	West bound lane closure for site establishment and delivery of materials.
HS-LAK-40003-P1	Railway Parade	West bound partial lane closure for site establishment and delivery of materials.

HS-LAK-40004-P1	The Boulevarde	East bound lane closure for site establishment and delivery of materials.

Table 9 – Lakemba Station minor & early works TCP's

Note: A site specific TMP will be generated for the Boulevarde site compound establishment

5.3 MARRICKVILLE STATION

TCP REFERENCE	ROAD	PLAN DESCRIPTION
HS-MAR-50001-P1	Illawarra Road	Illawarra Road SB lane closure to carry out utility investigation & clash detection works
HS-MAR-50002-P1	Illawarra Road	Illawarra Road NB partial lane closure to carry out utility investigation & clash detection works

Table 10 – Marrickville Station minor & early works TCP's

6 TRAFFIC MANAGEMENT CONTROLS

6.1 Traffic Controllers / Traffic Field Crews

All traffic controllers shall hold Transport for New South Wales 'Traffic Controller' qualification and wear the required Personal Protective Equipment (PPE) at all times.

During all work on site, the following precautions shall be taken:

- A traffic controller shall direct traffic and work vehicles using a "STOP/SLOW" sign.
- All trucks involved in the work shall follow a set route to minimise traffic disruption.

Where HSEJV works require vehicles to be stopped or slowed down to navigate through or past the work site then it shall be necessary to use qualified TfNSW Traffic Controllers. The selected Traffic Controller Subcontractor will be responsible for the management of all traffic throughout the delivery phase.

A Traffic Controller is a person who has graduated from an accredited course to Traffic Controller. Traffic controllers are also required to maintain a logbook of traffic control related information. Traffic Controllers are required to implement the approved TCP for the subject work area.

Their actions will comply with the TCAWS Manual and the site-specific TCP(s) and ROL(s) issued for each site. They will carry their qualification card on their person at all times when controlling traffic.

Each TCP will contain notes in relation to the obligations of the traffic controller and tasks that they are required to undertake as part of the traffic control. This includes tasks such as monitoring of traffic queues, side roads and pedestrian movements.

6.2 Signage - Regulatory, Advice & Guidance

During the construction of the Works, there may be impacts on the existing road network information and distance information signage. Consideration will be given to ensuring that existing road information and distance information signage is kept relevant at all times and consistent with the changed traffic conditions.

Signage associated with property access, local community access and businesses will be considered during the detailed design and implementation of temporary traffic management schemes and any impacts

addressed to ensure the appropriate information for road users is effectively communicated at all times.

Information signage and advance warning signage will be designed for all changes to the road network and traffic conditions in accordance with:

- TCAWS Manual Issue 6.0 (Oct 2020);
- AS 1742.3 and 1743 Road Sign Specifications;
- AS 1428 Design for Access and Mobility;
- AS 1742.1-15;
- AS 1743 Road Signs – Specifications;
- TfNSW Signs Index Database;

6.2.1 Signage

The following management process will be used when designing signage requirements for the Works:

- Identify any impacts on existing signs;
- Obtain CJP / TfNSW approval for the general advance warning signage strategy (including VMS) for Work sites and implement at the commencement of construction;
- If VMS are required, details will be included in each of the station specific TMP's; and
- Ensure consistency of new signs/temporary signs and existing signs on the road network;

All traffic control signs installed in the shoulder or verge, within the clear zone, will be frangible. HSEJV will endeavour to keep road verges as free as practicable of signs and furniture. Any non-frangible road furniture, sign posting or devices which is placed within the clear zone will be protected by an approved safety barrier treatment. Signage plans for the Works will be developed and included as attachments in the site specific TMPs.

The HSEJV Traffic Engineer's will be responsible for overall management of traffic operations and monitoring functions, and safe and efficient day to day management and control of traffic and traffic movements on the road network, including reinstatement of existing signage where required.

6.2.2 Roadwork Speed Limits

Temporary roadwork speed limits are one of several traffic controls that HSEJV will implement to manage the speed of traffic approaching and passing through a work site. HSEJV is conscious of the potential for speed reductions over long distances, to have negative impacts on road user travel times.

HSEJV will implement Roadwork Speed Zones logically, credibly and capable of being enforced by NSW Police. When considering the use of a roadwork speed zones, HSEJV will:

- Ensure they are clearly delineated and capable of being enforced;
- Position speed signs away from other traffic control signs and devices; and
- Ensure they are used only while road works are in progress or the lower speed road conditions exist.

6.2.3 Parking Management Plan

The upgrade works involve working within a live rail environment. This limits the type of work activities which can be carried out during standard construction hours. The project will work during available Sydney Trains

(ST) rail track possession weekends. The successful delivery of the project is reliant on working with and maximising scope of work during track possessions to deliver critical activities that are constrained by working within a live rail environment. This will involve a number of plant, machinery and workforce arriving and departing site during numerous shifts.

However, during standard construction hours, the project is committed to reducing project vehicles travelling along local roads and will encourage the workforce to:

- use public transport;
- carpool/share; and
- park in a designated off-site area and access construction sites via shuttle bus.

During possession weekends, a larger number of workers than usual would travel to the work sites using personal vehicles due to:

- reduction in available public transport due to trains not running;
- less frequent bus services on weekends; and
- some bus services not operating.

There should not be more than 15 parking spaces per compound or work site for construction worker parking. For each site, additional parking options are to be investigated.

Parking may have to be removed on some streets to allow heavy vehicles to manoeuvre into sites. Removed parking will be shown on the Traffic Control Plans. If required, further consultation will be undertaken with residents/businesses, and Council's approval will be obtained.

Any road occupancy will require approval from the relevant council (IWC or CBC) as well as notifying nearby residents. The notification process is outlined in Section 7.

Where parking is removed, alternative parking arrangements are to be provided where practical. Ideally there is as close to zero loss in parking due to project works.

6.3 Long-term Traffic Control Plans / Traffic Staging Designs / TCS modifications

Currently no long-term traffic changes, traffic staging designs and TCS modifications have been required in the SWM Package 4 construction methodology. In the event that long term changes are required, details will be planned and executed in conjunction with the relevant stakeholders and included within each applicable station specific TMP's.

6.4 Over-Dimensional Loads (OD)

HSEJV may receive deliveries of large construction materials (pre-cast concrete segments, heavy equipment) which require the use of over-sized transportation to and from the work site. At all times, if required, HSEJV will comply with the requirements of TFNSW *Operating Conditions: Specific permits for oversize and over-mass vehicles and loads.* HSEJV will prepare and comply with the relevant Safe Work Method Statements (SWMS) to ensure that work methods address:

- Accurately and safely weighing or measuring the vehicle load;
- Safely restraining loads;
- Providing reliable evidence to calculate the weight or measurement of the vehicle or load;
- Ensuring that weather conditions or the positioning of the load and/or vehicle does not breach the Road Transport (Mass, Loading and Access) Regulation 2005 or the Road Transport (Vehicle

Registration) Regulation 2007;

- Exercising supervision or control of others involved in the loading of vehicles;
- Provide information, instruction, training and supervision to employees; and
- Ensuring compliance with the requirements of the Road Traffic (Heavy Vehicle Driver Fatigue) Regulations 2008.

6.4.1 Safety Barriers

If temporary work zone barriers are required, these details will be explained within each station specific TMP. HSEJV will only deploy safety barriers of a type currently approved by TfNSW for use on state roads relevant to the speed environment and the crash test Level (TL). See TfNSW Acceptance link (https://www.rms.nsw.gov.au/business-industry/partners-suppliers/approved-products-materials/safety-barriers/temporary.html) for current temporary barriers approved on NSW roads.

In addition, any Safety Barrier System installed on the Project will be complaint with:

- AS 3845;
- AS 1742.3;
- TCAWS;
- AUSTROADS: Guide to Road Design, Part 6 Roadside design, safety and barriers; and
- The manufacturer guidelines.

Utilisation of non TfNSW approved safety barriers on local roads will be subject to a site-specific risk assessment and RSA (if applicable).

7 ROAD / LANE CLOSURES / DETOURS

All short-term road occupancy of any impact will be subject to the normal CJM ROL application and approval process explained in below.

For the purposes of this document:

"***Free flow of traffic***" means unimpeded traffic flow conditions within the project boundaries of each station prior to the commencement of any HSEJV work.

"***Road Occupancy***" means any part of HSEJV work that will or is likely to delay, including obstruct, restrict, close, interfere with, slow or stop, the free flow of traffic on any lane or shoulder within the project boundaries of each station or on any part of the Works opened to traffic. Road occupancies include, but are not limited to:

- Shoulder occupancies and/or closures;
- Lane occupancies and/or closures;
- Any occupation of the Construction Site by HSEJV labour, sub-contractors, equipment or plant that requires a traffic control plan under the provisions of the G10 specification; and
- Any other event that causes delays to the free traffic flows.

The duration of a "***traffic delay***" is the total period of time during which the free flow of traffic is obstructed, restricted, closed, interfered with, slowed or stopped and includes the time taken to clear all stopped, slowed and queued traffic and return to free flow of traffic conditions.

7.1 Road Occupancy Licence (ROL)

A copy of any Road Occupancy Licence (ROL) will be available:

- At the location of the relevant road occupancy; and
- At all times when any activity associated with the ROL is taking place.

HSEJV will make available to CJP / CJM Representative or client representatives, upon their requests and at the location of the road occupancy, a copy of the ROL.

All HSEJV personnel involved in the work associated with the ROL must be:

- Inducted in and made familiar with the ROL terms, conditions and requirements prior to the implementation of the road occupancy or their deployment in this element of the Proponents work; and
- Regularly re-trained on the ROL terms, conditions and requirements throughout the period of the road occupancy.

7.1.1 ROL Conditions

Notwithstanding any ROL granted by CJM for any lane or shoulder closure, HSEJV will co-operate with CJM and other authorities, such as the Police or State Emergency Services, to facilitate traffic flows on the roadway through the Site. CJM may at any time direct HSEJV to temporarily cease work and re-open any closed lane or shoulder. They may also direct HSEJV to cease work and divert resources to assist with emergencies.

The ROL must be available to CJM:

- At the location of the relevant road occupancy; and
- At all times when any activity associated with the ROL is taking place.

7.1.2 Periods for Implementation of Road Occupancies

As each station upgrade within the SWM package 4 works is unique, road occupancy times are to be discuss & negotiated with CJM. HSEJV are aware that works requiring road occupancy will likely be carried out during off peak periods.

8 EMERGENCY MANAGEMENT

The occurrence of unplanned incidents within the project boundaries can have significant impacts on road user delay. Similarly, incidents that occur outside the project at each station can temporarily restrict construction activities.

8.1 Unplanned Events (Incident Response)

The types of unplanned incidents that may occur include:

- Motor vehicle crashes;
- Fires;
- Environmental spills;
- Construction type incidents;
- Structural catastrophic failures;
- Inclement weather conditions;

- Flooding;
- Anti-social behaviour; and
- Terrorist attacks/bomb threats

In the event of an unplanned incident HSEJV will follow an escalation process to manage unplanned incidents.

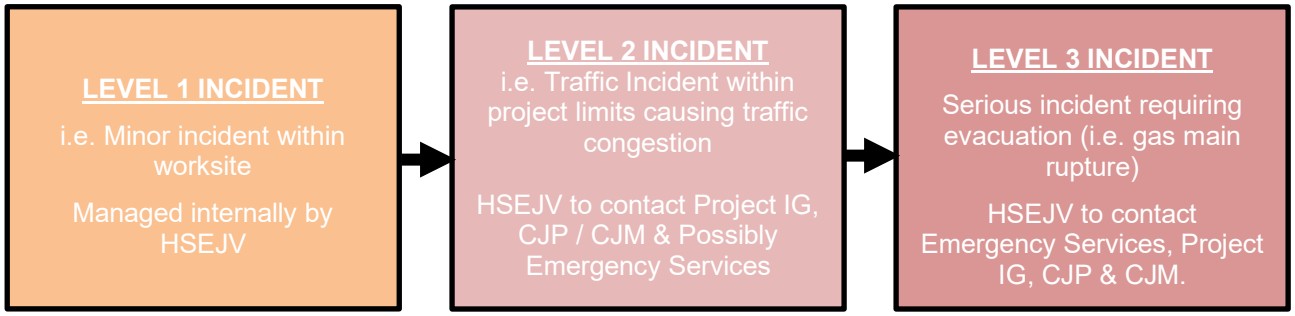


Figure 16 - HSEJV emergency escalation flow chart

As per the Project Safety Management Plan, HSEJV project teams will notify the relevant department in writing immediately after becoming aware of an incident. The notification will identify the location and nature of the incident as stated in the CoA.

For G10 Compliance, HSEJV will provide Names and contact details of nominated personnel responsible for attendance at traffic incidents where required to do so by the New South Wales Police Service and Emergency Services, and for maintenance of traffic control devices and temporary roadways outside normal working hours. Provide confirmation that these details have been provided to the New South Wales Police Service.

HSEJV will complete an Incident Report for all incidents attended. In order to minimise the impact of such events on road user delay, HSEJV will:

- Clearly identify the relative responsibilities and roles of government agencies and the project team when responding to incidents;
- Establish and maintain communication protocols for both internal and external communications with Community & Stakeholder Manager involvement;
- Provide close support to emergency services, where appropriate; and
- Reschedule planned works that will interfere with the incident, or create additional delays to those road users already affected by the incident;

9 MANAGING VULNERABLE ROAD USER GROUPS

9.1 Pedestrians

HSEJV will maintain pedestrian connectivity and functionality provided within and directly adjacent to the project areas by preserving existing connections or providing upgraded alternative connections.

HSEJV 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 and AS1742.3. Prior to work commencing on State and local roads, where the pedestrian access may be affected, HSEJV will provide

alternate pedestrian access routes that are clearly signed and delineated in accordance with all safety requirements.

Alternate routes made available 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 TCP's prior to the construction activities commencing.

As part of this CTMP HSEJV will implement the following measures when providing alternate pedestrian routes in order to minimise impacts on mobility impaired pedestrians:

- Clearly define temporary footpath arrangements by using appropriate signage;
- maintain a smooth, even surface on all temporary footpaths and crossings;
- conduct regular inspections to maintain footpaths free of trip hazards; and
- When changing footpath access, minimise grades for wheelchair use.

9.2 Cyclists

HSEJV will maintain all current formal and informal cyclist connectivity and functionality provided within and directly adjacent to the project area. HSEJV will manage the cyclist desire lines with temporary routes that comply with the requirements of AS1742 Part 9 – Bicycle Facilities, AUSTROADS Guide to Traffic Management Part 10 and AS1743 – Road Signs Specifications.

Cyclist volumes on the local roads within the project's boundaries are low and dedicated cyclist facilities are generally provided outside the work sites. Where practical, HSEJV proposes to maintain all existing cyclist routes. Where alternate routes are implemented, they will be appropriately signed and marked and should only be in place for the short duration.

If any changes are required during the construction of each station upgrade, this will be presented and explained within each of the station specific TMP's.

9.3 Disabled Persons

As part of this CTMP, HSEJV will implement the following measures to minimize impacts on disabled persons:

- Clearly define any temporary footpath arrangements by using appropriate signage;
- maintain sufficient space for wheelchair access;
- maintain a smooth surface in all the footpaths and pedestrian crossings;
- conduct regular inspections to maintain footpath access free of trip hazards; and
- When changing footpath access, consider maximum grades for easy wheelchair access.

9.4 Public Transport

Modification of existing bus stops, or implementation of new bus stops and alterations to service patterns, would be carried out by Sydney Metro in consultation with TfNSW, Sydney Coordination Office, the Inner West and Canterbury-Bankstown Councils and bus operators.

Current plans for both partial and full road closures will have a minor affect to bus routes and bus stops in the vicinity of each station. These will be addressed in each station specific Traffic Management Plan.

9.4.1 Possession Buses

During possession periods, buses will be utilised to service patrons that would otherwise use the train service. HSEJV will develop specific traffic plans (TCP's / VMP's / PMP's) in consultation with Sydney Trains possession bus routes. If these bus routes are affected by the works, HSEJV will engage with Sydney Trains to develop a suitable alternative.

9.5 Emergency Vehicle Access

Access will always be maintained. Construction staff working will be made aware of the arrangements, and the potential for emergency services access through the worksite – and in these events to stand well clear and halt works to maximise safety while they pass.

9.6 Business and Residents

Business and residential access will always be maintained. There are no proposed adjustments to private property accesses as part of these works. If adjustments are required, these will be explained in the applicable station specific TMP.

10 MONITOR & REVIEW

10.1 Surveillance

To monitor the effects of the construction activity on affected roads and the surrounding network HSEJV will utilise field staff and traffic control subcontractors. Their objective will be to detect and report any unsafe traffic conditions, incidents and unusual congestion.

The surveillance staff will be regularly briefed on all changes implemented in the surrounding road network and the seasonal variations expected in traffic flows. As per the communications protocol, these staff will immediately report issues to the Traffic Engineer and/or Safety Officer. The Traffic Engineer will coordinate maintenance or remedial works with the Field Staff.

Communication is an important part of traffic operations, for both planned and unplanned incidents. HSEJV field resources will report all incidents or issues to the Traffic Engineer immediately. The Traffic Engineer will commence a response strategy as indicated in this plan. Methods of communication will include two-way radios and mobile telephones. The key contacts for each station are listed Tables 1-3.

10.2 Inspections

HSEJV will undertake regular inspections to ensure the safety of all traffic movements, as well as the well-being of pedestrians, cyclists, drivers and property through and surrounding all works sites. The responsibility and frequency of inspections is clearly stipulated in Section 2.5.5 of AS 1742.3.

Three main types of inspections and records will occur:

- Inspections of short term (single shift) traffic controls during the shift;
- Regular daytime inspections of long-term traffic controls after implementation; and
- Regular nighttime inspections of long-term traffic controls after implementation.

Pre-opening inspections will be carried by the Traffic Manager and Traffic Engineer before the start of each new temporary roadwork site or major modification. An independent Road Safety Audit will be conducted within 48hours of the implementation of any long-term alignment change (switch). Inspections of all temporary TCPs will be made:

- After initial erection of the traffic devices;
- After any changes are made;
- Regularly (formal inspections at least daily); and
- After a change in prevailing conditions – where practicable.

These following Forms will be used for these inspections:

- Form SEQ-CL-014 – Daily Traffic Management Inspection Checklist;
- Form SEQ-CL-015 - Long Term Traffic Management Audit;

HSEJV will undertake regular inspections to ensure the safety of all road users during works, as stipulated in Appendix A.2 of AS 1742.3 and duplicated in the TCAWS Manual. Findings will be recorded using the Forms attached in Appendix D of this CTMP, and as described below:

Inspection / Audit	Process
Daily Inspection of **short-term** traffic controls to be carried out by the Traffic Supervisor: • After initial set-up • After any changes • Regularly (daily) during works	Form SEQ-CL-014 – Daily Traffic Management Inspection Checklist.
Audit of installed TMP(s) & station traffic strategies (weekly) to be carried out by the Traffic Engineer.	Form SEQ-CL-015 - Long Term Traffic Management Audit

Table 11 - Timing of internal traffic inspections and audits

10.3 Independent Road Safety Auditing

Road safety audits will be carried out by an auditing team consisting of a lead auditor and at least one other member who is experienced in traffic engineering. The lead auditor must be Level 3 accredited / recognised by the NSW Centre for Road Safety at the time the road safety audit is conducted. Road safety audits will be undertaken by a team which is independent of the Contractor.

The road safety audits will be carried out in accordance with the “NSW Centre for Road Safety’s Guidelines for Road Safety Audit Practices” and “Austroads Guide to Road Safety Part 1: Overview & Part 6: Road Safety Audits”.

A Road Safety Audit will be conducted and provided to supplement this CTMP, to fully assess the road safety risk, focusing on heavy vehicle haulage routes through pedestrianised areas.

As per G10, once the CTMP is approved and implemented, HSEJV will commission a site road safety audit on the implemented arrangements.

As per the SWM package 4 SWTC, at a minimum HSEJV must carry out road safety audits at the following stages of the Works:

- prior to the commencement of construction (unless otherwise completed and provided as part of the Principal’s Design Documentation);
- at completion of construction and prior to opening and operation of any road or road related areas;

and

- at or near completion of any applicable Temporary Works which impact Local Areas and road reserves.

HSEJV will undertake any additional road safety audits requested by the relevant road authority.

10.3.1 Preopening Inspections

Pre-opening inspections will be carried by the HSEJV Traffic Engineer in conjunction with the independent road safety auditor prior to all major traffic changes.

Any signage or devices identified during the checks or audits requiring attention will either be rectified at the time or advised to the Traffic Engineer during that shift for follow-up action.

11 TRAFFIC & TRANSPORT COMMUNICATIONS

HSEJV will liaise, consult and communicate with the community, authorities, agencies and all other stakeholders during the construction works.

This consultation will ensure that timely, accurate and comprehensive traffic and transport information is provided to all potential and existing road users to optimise their travel options and to reduce negative impacts due to construction.

11.1 Stakeholder Consultation

As per the Traffic & Transport Guidelines for Sydney Metro Construction Contractors, there are three required forums to discuss, review and approve project / station specific traffic strategies & TMP's.

These are:

- Traffic Control Group (TCG)
- Traffic and Transport Liaison Group (TTLG)
- Local Traffic Committee (LTC)

11.1.1 Traffic Control Group (TCG)

Sydney Metro will establish a Traffic Control Group (TCG) which will meet on a weekly/fortnightly basis to discuss:

- Traffic Management requirements & strategies;
- Traffic designs, TCP's, aerial images and design details;
- Upcoming activities which may provide opportunity for early feedback prior to submission of site specific TMP's; and
- Upcoming ROL embargo periods.

The Project TCG will compromise of Customer Journey Planning (CJP) representatives and HSEJV Traffic Engineer / senior manager(s).

11.1.2 Traffic and Transport Liaison Group (TTLG)

Sydney Metro will also establish a Traffic and Transport Liaison Group(s) (TTLGs) that will meet monthly to inform traffic and transport management measures during Construction and Operation of the CSSI. Management measures must be coordinated with TfNSW following consultation with CJP and other the

relevant stakeholders.

The TTLG must comprise representatives from the Relevant Road Authority(ies), transport operators (including bus and taxi operators) and emergency services as required. The TTLG must be consulted to inform preparation of the Construction Traffic Management Plan(s).

The Project TTLG will include senior representatives of HSEJV (Station PM's), TfNSW, Customer Journey Management (CJM), CJP and other relevant agencies. The TTLG will provide a forum for discussion of all high-level traffic strategies and transport and road safety matters associated with the project, including:

- Construction staging, current and proposed;
- Traffic operations, including changes in traffic alignments, work area's and parking restrictions, if any;
- Community feedback and identified issues, comments;
- Impacts on public transport;
- Pedestrian and cyclist impacts; and
- Proposed communication strategies for future works and actions.

HSEJV recognises the importance of consulting with the various stakeholders in an effort to minimise the impacts during the construction phase. During the development of temporary traffic management arrangements, the following stakeholders will, be consulted as appropriate. The following road user groups should be included in the TTLG:

- CJP – Customer Journey Planning
- TfNSW – Transport for New South Wales
- CJM – Customer Journey Management (TMC)
- Applicable Local Council's
    - IWC – Inner West Council (Marrickville Station)
    - CBC – Canterbury-Bankstown Council (Canterbury & Lakemba Stations)
- Emergency Services
- Bus & taxi operators

11.1.3 Local Traffic Committee (LTC)

Due to the nature of works, engagement with Local Councils will be required throughout the duration of the project. In order to facilitate this, HSEJV will engage the LTC & local councils (when required) should there be any anticipated impacts on council infrastructure or assets.

Copies of project notifications will also be sent to Inner West Council via (council@innerwest.nsw.gov.au), and Canterbury-Bankstown (council@cbcity.nsw.gov.au).

Any changes made to the public domain must be submitted to the Inner West Council, which will be referred to the Local Traffic Committee.

11.2 Community Consultation

The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community notification.

The Overarching Community Communication Strategy (OCCS) outlines the HSEJV's approach to managing

communications and engagement during the construction of the SWM Package 4 works as part of the Sydney Metro City & Southwest program of work.

The OCCS describes the engagement approach, processes, procedures and tools that will be used to provide timely, accurate and relevant information to the community. The CCS aims to maximise stakeholder and community understanding of the project activities, objectives and benefits, timing of potential impacts and available mitigation measures.

A number of communications tools will be used to notify the community of any upcoming changes to traffic conditions that have the potential to impact them, including:

- Monthly and specific notifications;
- Traffic alert emails;
- Variable Message Signs;
- Static signage;
- Advertisements;
- Sydney Metro website;
- Sydney Metro social media; and
- Doorknocks and other meetings.

11.3 VMS

HSEJV may deploy portable VMS boards to publicise pending and/or completed changes to traffic arrangements. HSEJV will comply with the TfNSW Guide to use Portable Variable Message Signs for Temporary Traffic Management on NSW Roads, when deploying VMS boards within the road corridor. VMS strategies and proposed messaging will be detailed within each station specific TMP.

12 OTHER KEY CONTACTS

SWM Package 4 – Other Contacts		
Position	**Name**	**Phone Number**
Environmental Manager	Brad Cole	
Community & Stakeholder Officer	David Simpdendorfer	
HSEQ	Jeremy Wallis	
Rail Safety Manager	Craig Diessel	
Utilities interface Manager	Gary Cook	

Table 12 – Other Key Contacts

Appendix A – Traffic Control Plans

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Canterbury Station TCP's

TCP REFERENCE	ROAD	PLAN DESCRIPTION
HS-CAN-3001-P1	Canterbury Road	Eastbound Partial Lane closure for service investigation, hoarding installation & removal
HS-CAN-3002-P1	Canterbury Road / Broughton Road	Broughton St Partial Closure for service investigation, tree trimming and delivery of material. ***Consultation with Sydney Buses required prior to implementation***
HS-CAN-3003-P1	Canterbury Road	Canterbury Rd SB Slow Lane Short Term Closure for service investigation and implementation of temporary works. ***Pedestrian access will be maintained***
HS-CAN-3004-P1	Canterbury Road	Canterbury Road westbound footpath closure & pedestrian detour for service investigation

Lakemba Station TCP's

TCP REFERENCE	ROAD	PLAN DESCRIPTION
HS-LAK-40001-P1	Railway Parade	Intermittent stoppages for site establishment and delivery of materials.
HS-LAK-40002-P1	Railway Parade	West bound lane closure for site establishment and delivery of materials.
HS-LAK-40003-P1	Railway Parade	West bound partial lane closure for site establishment and delivery of materials.
HS-LAK-40004-P1	The Boulevarde	East bound lane closure for site establishment and delivery of materials.

Marrickville Station TCP's

TCP REFERENCE	ROAD	PLAN DESCRIPTION
HS-MAR-50001-P1	Illawarra Road	Illawarra Road SB lane closure to carry out utility investigation & clash detection works
HS-MAR-50002-P1	Illawarra Road	Illawarra Road NB partial lane closure to carry out utility investigation & clash detection works

Appendix B – Vehicle Movement Plans

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VMP REFERENCE	STATION	PLAN DESCRIPTION
HAS-CAN-30006-P1	Canterbury Station	Proposed movements to and from the Charles Street compound.
HAS-MAR-50003-P1	Marrickville Station	Proposed movements to and from the Victoria Road compound.

Note: The Lakemba Station VMP will be presented in a separate site-specific establishment TMP.

Appendix C – Inspection Checklists

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Inspection / Audit	Process
Daily Inspection of **short-term** traffic controls to be carried out by the Traffic Supervisor: • After initial set-up • After any changes • Regularly (daily) during works	Form SEQ-CL-014 – Daily Traffic Management Inspection Checklist.
Audit of installed TMP(s) & station traffic strategies (weekly) to be carried out by the Traffic Engineer.	Form SEQ-CL-015 - Long Term Traffic Management Audit