

# CEMP Appendix B3

## Construction Traffic, Transport and Access Management Sub Plan

Kamay Ferry Wharves

June 2023

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**Document control**

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## Distribution of controlled copies

This sub-plan is available to all personnel and sub-contractors via the Project document control management system. An electronic copy can be found on the Project website.

The document is uncontrolled when printed. One controlled hard copy of the CEMP and supporting documentation will be maintained by the Quality Manager at the Project office [and on the project website].

Copy number	Issued to	Version

## Glossary / Abbreviations

Table 1-1: Table of common abbreviations used within this document

Abbreviation	Expanded text
CEMP	Construction Environmental Management Plan
CEMS	Contractor's Environmental Management System
CMO	HESQ compliance database software
Contractor	McConnell Dowell Contractors (Aust) Pty Ltd (MCD)
CoA	Condition of Approval
DPE	NSW Department of Planning and Environment
DCC	Drivers Code of Conduct
EIS	Environmental Impact Statement
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental objective	Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental target	Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
EPA	NSW Environmental Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
EPBC – CoA	<i>Environmental Protection and Biodiversity Conservation Act 1999</i> Conditions of Approval
ER	Environmental Representative
ERG	Environmental Review Group



Abbreviation	Expanded text
EWMS	Environmental Work Method Statements
HSEQ	Health, Safety, Environment and Quality
MCoA	Minister's Conditions of Approval
PMP	Pedestrian Management Plan
OEH	Office of Environment and Heritage
TGS	Traffic Guidance Scheme
TMP	Construction Traffic, Transport and Access Management Sub-Plan
REMM	Revised Environmental Management Measures
RMS - Roads and Maritime	Now Transport for NSW (TfNSW)
Site	Area defined by the construction boundary at La Perouse and Kurnell
STMP	Stage specific TMP to address works that may not be included as part of the TMP
VMP	Vehicle Movement Plan
VMS	Variable message sign

# 1 Introduction

## 1.1 Context

This Construction Traffic, Transport and Access Management Sub-Plan (TMP) forms part of the Construction Environmental Management Plan (CEMP) for the Kamay Ferry Wharves Project (the Project) as shown in Figure 1-1.

This TMP has been prepared to address the requirements of the Minister’s Conditions of Approval (MCoA) SSI 10049), *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) Conditions of Approval (EPBC-CoA) and the Revised Environmental Management Measures (REMMs) listed in the Kamay Ferry Wharves Environmental Impact Statement (EIS) and all applicable legislation.

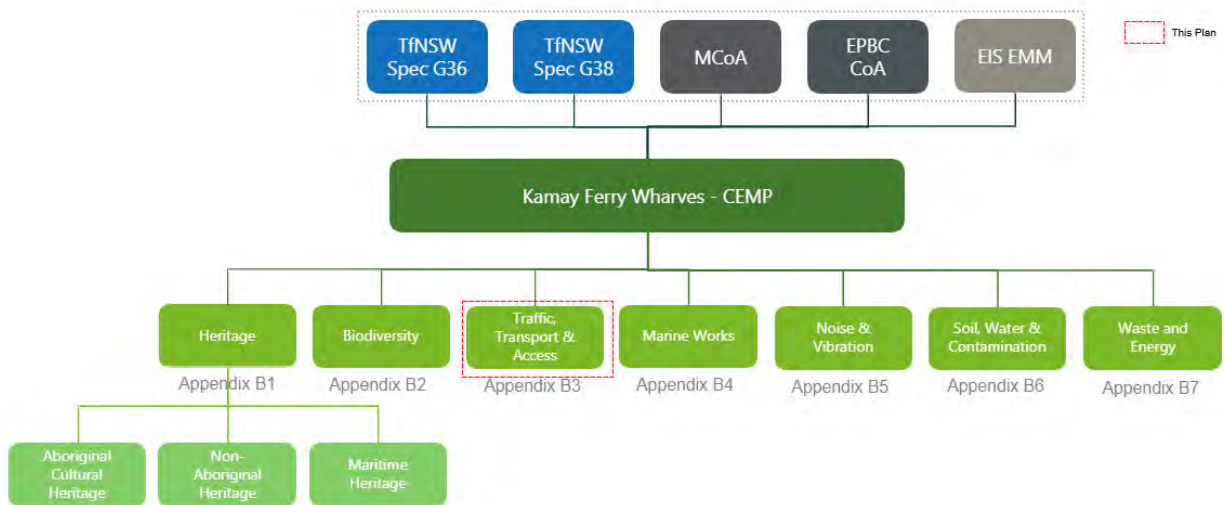


Figure 1-1 CEMP and Sub Plans

## 1.2 Background and project description

Transport for New South Wales (Transport for NSW) is constructing new ferry wharves at La Perouse and Kurnell in Botany Bay. Refer to site location map in Section 2.1 of the CEMP. This would allow for an alternative connection between La Perouse and Kurnell other than by road. The primary purpose of this infrastructure would be to enable the operation of a public ferry service. It would also provide supplementary temporary mooring for non-ferry commercial vessels (such as whale watching vessels) and recreational boating.



Figure B La Perouse project overview



## Figure C Kurnell project overview

A detailed description of the Project is provided Chapter 5 of the EIS.

The Kamay Ferry Wharves EIS assessed the potential traffic impacts from construction and operation of the Project in Chapter 12 of the EIS.

As Part of the EIS development, a detailed traffic assessment was prepared to address the Environmental Assessment Requirements issued by DPIE. This was included in the EIS as Appendix K Landside Traffic and Transport Assessment Report.

The EIS explained that the Proposal would use existing roads to facilitate construction traffic, including temporary access roads to access the wharf locations. At La Perouse, this would be via Anzac Parade, and at Kurnell this would be via Captain Cook Drive. It concluded that minimal traffic would be affected on the existing roads.

### 1.3 Scope of this TMP

Implementing this TMP effectively will ensure that the Project meets the requirements of the MCoA, EPBC-CoA and REMMs (see Attachment B) are met.

This TMP has been prepared in accordance with:

- The REMMs
- Australian Standard / New Zealand Standard ISO 14001
- Ministers Conditions of Approval (MCoA) granted to the project on 21st July 2022.
- EPBC-CoA granted to the project on 16<sup>th</sup> March 2023.

Compliance of the TMP with key documents is outlined below in Table 1-1. The TMP will include:

- Context and description of the Project
- The required endorsements and approvals for the works to be complete
- Measures to identify and ensure competence, training and awareness of site workers
- Incident and non-conformance management and reporting
- Monitoring, inspections and auditing
- Construction control regarding environmental issues on soil and water quality management
- Security and Site facilities.

Table 1-1 Compliance of the TMP with Key documentation

Ref.	Compliance Obligation	Compliance Reference
Ministers Conditions of Approval		
C7	The CEMP Sub-plans must state how: a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;	Section 6.3
	b) the mitigation measures identified in the documents listed in Condition A1 will be implemented;	Section 14
	c) the relevant terms of this approval will be complied with; and	Attachment C
	d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.	Section 14
C8	The Traffic, Transport and Access CEMP Sub-plan must include the following: a) identify roads to be utilised as part of Construction and measures to ensure construction vehicles follow this route;	Section 7.1
	b) identify marine construction and vessel mooring zones and measures to delineate these areas;	Refer to Marine Works Management Plan Section 4.8.1
	c) measures to physically separate pedestrian and construction vehicle movements, such as temporary barriers; and	Section 10.1
	d) where access is via non-road land (such as across lawn areas of NPWS land) vehicle routes must be agreed in consultation with NPWS, and large vehicle movements is to be minimised to avoid excess ground compression and Aboriginal cultural heritage and vegetation impacts.	Section 3, 7.1

## 1.4 Environmental management systems overview

The Contractor's Environmental Management System (CEMS) overview is described in section 4.4 of the CEMP.

## 2 Purpose and objectives

### 2.1 Purpose

This Construction Traffic, Transport & Access Management Plan (TMP) will document McConnell Dowell's compliance with the traffic management and road safety requirements of the Contract to the satisfaction of TfNSW and all other relevant stakeholders and authorities.

In addition, this plan provides information on how the project will be constructed around traffic through the staging methodology described in section 8 of this document. The traffic management methodology has been developed to achieve three key objectives during the project delivery phase. These are:

- Minimise the impact of construction works on the road user;
- Early completion of local road improvements; and
- Simplicity and flexibility of traffic/construction staging.

This TMP is developed to address the requirements of a TMP and provide a single operational reference for McConnell Dowell staff. Details for managing impacts on the road network and local traffic movements as a result of construction activity are contained in this Plan. Subordinate TMP's with detailed traffic staging descriptions and drawings are explained in section 8 below. The TMP will provide an overview of the sequence and extent of temporary traffic diversions and intersection layouts planned for the construction of the Works from start to completion, highlighting crucial control elements that will be implemented to maintain safe thoroughfare and connectivity around the construction site. An overview of proposed geometry and control strategies for the guidance of all road users, in particular vulnerable groups (cyclists and pedestrians) is provided.

This TMP is also an Operational Manual for the Construction Team during the delivery of the project and will facilitate safe construction with minimal impacts on the road user and road network. McConnell Dowell will manage traffic during the construction works, particularly identifying the location, nature and duration of work activities, their impact on the roadway, all road users, and the control strategies implemented to mitigate these impacts. Service will be maintained at intersections and mid-blocks throughout the project.

McConnell Dowell will review and address the interaction between construction traffic and the public and will develop Vehicle Movement Plans (VMPs) for each construction site. These will highlight preferred travel paths for vehicles entering, leaving or crossing the through traffic stream. McConnell Dowell will ensure that construction traffic causes minimal disruption to traffic flow, particularly during high volume periods by implementing traffic management strategies which comply with:

- AS1742 Parts 1, 2 and 3;
- AUSTRROADS Design Guides, in particular 'Part 6 – Roadside Design Safety and Barriers'; and
- TfNSW, Traffic Control at Worksites Manual Ver 6.1 (2022).

### 2.2 Objectives

The key objective of the TMP is to ensure that traffic impacts during construction are minimised and are within the scope permitted by the planning approval. This includes minimising delays, ensuring consideration is given to the needs of all road users and maintaining safety for both workers and the general public. To ensure all MCoA, EPBC-CoA, REMMs and licence/permit requirements relevant to traffic are described, scheduled and assigned responsibility as outlined in:

- The EIS prepared for the Project
- MCoA
- EPBC-CoA granted to the project on 21<sup>st</sup> of July 2022

This TMP will ensure that:

- There is continuous, safe and efficient traffic movement;
- The traffic capacity of the state and local road network is maintained;
- There is timely, comprehensive dissemination of information to the community;
- Construction staging and changes to traffic management are seamless;
- McConnell Dowell operates a traffic operations, maintenance and incident management capability to ensure compliance
- McConnell Dowell adopts a cooperative and client-focused approach to its resources; and
- To work cooperatively with adjacent projects to provide the safest and most efficient outcome for the community.

## 2.3 Safety & Amenity of The Road Network

It is a strategic goal of McConnell Dowell to maintain the performance of the road network and foster a positive customer experience during all road construction activities. This is achieved by intelligently identifying all potential impacts, planning “best practice” traffic management schemes to negate or minimise these impacts and allocating sufficient resources to facilitate those mitigations. McConnell Dowell has successfully delivered projects for Clients with similar challenges, such as working adjacent to large volumes of live traffic, maintaining traffic flow, pedestrian and cyclist management, and maintaining property owner and pedestrian access.

McConnell Dowell will adopt a collaborative approach to meeting the goals of TfNSW & Council. The placement of experienced, trained staff will enable McConnell Dowell to develop strategies, monitor systems and implement controls which promote the free-flow of traffic, particularly during peak periods. The TMP for the project will optimise the effectiveness of traffic staging. This will reduce the number of temporary realignments, minimising the impact on the road network.

Stakeholders including road users, residents and businesses will remain informed of pending changes with concise, timely and targeted notifications. Through intelligent planning and design we will identify any impact on the network caused by the location, nature or duration of work activities. Best practice control measures will then be implemented to avoid or mitigate these impacts and maintain the level of service at all intersections and mid-blocks throughout the project. The McConnell Dowell strategy combines contemporary road safety and traffic management principles to ensure the safety and amenity of all road users and the public.

McConnell Dowell will apply the following key road safety and traffic management principles to manage the safety and amenity of all road users and the public:

- Ensuring potentially affected pedestrians, cyclists, road users, landowners and businesses are identified during the design and construction planning phase;
- Isolating work areas from traffic flows, through appropriate site planning, choice of construction methodologies and clear delineation of worksites;
- Installing traffic controls that effectively warn, inform and guide motorists and that comply with TfNSW & Council requirements and the Australian Standards;
- Plan and stage all works effectively to minimise road occupancy where possible and reduce conflict points on the existing road network;
- Maximise working opportunity on the roads. Works will be sequenced so that the works can be carried out behind traffic barriers as much as feasibly possible;

- Implement traffic control operations that minimise delays to road users taking into consideration traffic volumes including peak times of the day, seasonal traffic and impacts from school traffic as well as traffic generated by aged care facilities in the vicinity of the sites;
- Minimise driver confusion by ensuring clear and concise traffic management schemes and by using existing and new communication networks to advise commuters and the general public of upcoming changes on the road network;
- Construction staging will be designed such that traffic lane widths are in accordance with TfNSW requirements and any temporary pavement designs will be designed for the approved traffic speed;
- Roadwork speed limits will be implemented for worksite and public safety purposes;
- Effective planning of all construction vehicle movements including the provision of safe ingress and egress points at the interfaces with the existing road network;
- Limit obstructions and restrictions on the existing road network, and when necessary, provide alternate routes to maintain access for the local community and businesses;
- Coordinate and effectively communicate changed traffic conditions with members of the Traffic Control Group (TTLG) in particular TfNSW, NSW Police, NSW Fire & Rescue, Ambulance Service of NSW, NSW State Emergency Service, Bus Providers and Local Councils;
- Out of hours' works occupying the road will be necessary to perform critical works such as tie-ins, roundabout and intersection works, which may be carried out once necessary community consultation has occurred, and the Minister's Condition of Approval have been addressed, and;
- Where critical, out of hours' works will be planned on an hourly basis to monitor progress of works during the shift to ensure the road is left in a safe condition and in accordance with the Council road occupancy requirements.

McConnell Dowell aims to facilitate construction of the new alignments clear of traffic where possible by minimising the interface with the travelling public.

This proposal has significant safety and programme benefits such as:

- It clearly delineates the works from the existing traffic providing increased separation, increasing the safety of both the travelling public and construction staff;
- It significantly improves the construction traffic staging and avoids extended diversions for motorists on the State Road network; and
- It provides increased working width for construction staff significantly increasing worker safety around heavy plant, especially paving equipment;
- McConnell Dowell believes its proposed staging incorporates significant safety in design innovation and demonstrates a genuine commitment to eliminating safety risks in the design stage of the project and provides a clear and robust outcome for all Stakeholders.

## 2.4 Targets

The following targets have been established for the management of traffic impacts during the Project:

- Ensure appropriate controls and procedures are implemented during construction activities to address potential traffic impacts



- Ensure appropriate measures are implemented to address the relevant MCoA and EPBC-CoA, and the safeguards detailed in the EIS
- Ensure appropriate measures are implemented to comply with all relevant legislation
- Where possible coordinate construction works in order to minimise the impact of the works on the surrounding community and stakeholders

### 3 Consultation

The following stakeholders have been consulted in the development of this TMP.

Table 3-1 TMP stakeholder consultation

Sub Plan	Relevant government agencies to be consulted
Traffic, Transport and Access Management Plan	Randwick City Council, Sutherland Shire Council and National Parks and Wildlife Service

Refer to Attachment D for consultation correspondence evidence.

## 4 Project Roles & 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 responsibilities for personnel attached to each of the key positions are listed below.

### 4.1 Traffic Manager

The Traffic Manager will perform the role of the *Traffic Control Site Manager*.

The Traffic Manager will not be site based and is responsible for the long and short-term temporary Traffic Management of the Project. The TM will have a site delegate (who will be on site full time) to act on behalf of the TM. The TM will be qualified, as a minimum in the "TfNSW Prepare a Work Zone Traffic Management Plan" course, hold tertiary qualifications in traffic or transport related fields acceptable to TfNSW and have a minimum of 5 years recent experience in traffic management on TfNSW road construction sites of equivalent scale and complexity, including detailed exposure to and development of staging on major TfNSW civil construction works. The Traffic Manager must also be highly skilled and experienced in liaison with TMC.

In addition, the TM will:

- Enforce the TfNSW requirements and the Project Conditions of Approval;
- Oversee the projects compliance with the provisions of this document (TMP) and ensure the traffic management objectives of the project are achieved;
- Communicate with stakeholders regarding traffic matters in conjunction with the Communications & Community Liaison Representative (CCLR);
- Prepare, implement, monitor and review all staging TMP's;
- Prepare TGSs, VMPs, ROLs, SZAs and associated Hold Points for approval;
- Chair traffic-related meetings (TTLG and TCG);
- Communicate with adjoining contracts to coordinate traffic requirements;
- Obtain all necessary approvals and ROL's for the TGS's as necessary;
- be responsible for the implementation of ROL's 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;
  - monitor over-dimension heavy vehicle movements; and
  - Maintain close liaison with the Project Manager (PM) and construction teams regarding the programming of work activities which impact traffic.

### 4.2 Site Supervisor

McConnell Dowell will provide the resource requirements relating to the traffic management field crews (including incident assistance) and the routine management of traffic control facilities and maintenance of Temporary Works.

The Site Traffic Supervisor responsibilities during construction are as follows:

- Implement and monitor TMP's with guidance from the TM;

- Coordinate field resources and ensure that traffic management requirements are adhered to at all times;
- Ensure the procedures and site rules associated with traffic management are monitored and controlled;
- Ensure all personnel undertaking work activities associated with traffic management are appropriately qualified and competent to perform their duties;
- Coordinate and supervise sub-contractors deployed for TMP implementation;
- Manage Traffic Controllers at all work sites, including maintenance.
- Report to the Traffic Manager and be responsible for operational and traffic maintenance field resources and crews;
- Ensure that traffic control facilities are maintained and monitored throughout the Works;
- Work cooperatively with other incident response or emergency services when required;
- Ensure all appropriate procedures are implemented during a planned traffic switch;
- Be available to receive regular briefings on the implementation of the TMP and toolbox meetings;
- Participate in the development of work procedures relating to Traffic Management and Incident Response Plans;
- Respond to incidents on the road network affected by the construction works taking advice from the Emergency Responders and TfNSW;
- Ensure adequate resources are available and used to carry out Temporary Works in accordance with the program; and
- Provide traffic management support services to the Construction Manager where required.

### **4.3 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);
- Assist the construction team to undertake their duties to the satisfaction of the TMP;
- Undertake routine and periodic maintenance of traffic management and control facilities;
- Undertake the reporting and auditing requirements of the TfNSW Traffic Control at Worksites manual; and
- Respond and attend to unplanned incidents across the project.

## 5 Existing environment

### 5.1 Intersection and road network operation

Based on traffic surveys carried out for the EIS, the nearest intersections to the construction sites all operate at a good level of service. However, results at La Perouse indicate that car parking causes notable traffic queues extending through the Anzac Parade loop. People waiting for a car park can block the loop road and cause congestion.

### 5.2 Car parking

Parking surveys carried out for the EIS at La Perouse showed:

- There are no timed parking restrictions during the day along Anzac Parade. Parking is restricted at night time between 10pm and 3am.
- The busiest times for car parking is predicted to occur on the weekend, with higher numbers of vehicles entering and exiting the project area between 11am and 3pm.
- The high turnover of vehicles caused congestion on Anzac Parade which is a one-way loop system. Vehicles had to stop along Anzac Parade to wait for parking spaces, which resulted in further congestion.
- Most (70 per cent) cars were short-term visitors, staying between 30 minutes and one hour (62 per cent). The remaining eight per cent stayed less than 30 minutes. This is likely because vehicles were dropping off passengers or unable to find parking, which indicates there is likely suppressed parking demand.

Parking surveys carried out for the EIS at Kurnell showed that:

- There are no parking restrictions along Captain Cook Drive. Along Prince Charles Parade there is unrestricted 90 degree car parking. Further south along Prince Charles Parade, on-street parallel parking is restricted between 6am and 6pm on weekends and public holidays. Vehicle access to the Kamay Botany Bay National Park (the National Park) is from 7am to 7.30pm from Cape Solander Drive. Paid parking applies in the National Park.
- The busiest time for car parking is predicted to occur on the weekend, with the highest occupancy recorded at 1pm (91 per cent), which reduced to 78 per cent by 2pm. While this suggests the highest parking demand at Kurnell is over a lunch time on weekends, there is sufficient space to accommodate this demand.

### 5.3 Public transport

Bus services are the only form of public transport provided at both La Perouse and Kurnell. At La Perouse, all buses (except school routes) run every 15 minutes on weekdays and weekends. At Kurnell, the service runs every hour on weekdays and every 1 to 2 hours on weekends (Saturday only).

The nearest bus stop to the proposed wharf at La Perouse is located outside 1597 Anzac Parade (Stop ID: 203622), 300 metres to the east of the proposed wharf.

The nearest bus stop at Kurnell is located opposite 1-5 Captain Cook Drive (Stop ID: 223134), 350 metres to the south of the proposed wharf.

## **5.4 Pedestrian and cyclist Facilities**

### **5.4.1 La Perouse**

At La Perouse, footpaths are provided around the full outer perimeter of the Anzac Parade loop, connecting to the retail frontage at Anzac Parade and along the eastern and western sides of Endeavour Avenue. There are walking trails nearby. These include Congwong Trail off Henry Head Lane, connecting to Congwong Beach and Little Congwong Beach. The Anzac Parade loop has pedestrian access to a Bare Island Bridge, which is a popular tourist location. McConnell Dowell has observed that no formal speed limit is displayed at the Anzac Parade loop and have assumed 10 kilometre per hour speed zone applies as commonly seen in shared use zones & parking zones across metropolitan Sydney. The bridge connects to Bare Island to the south.

Given the tourist attraction of the area and the pedestrian infrastructure, walking activity is high especially between landmarks and retail areas. The data from the intersection surveys conducted show that while the area facilitates walking locally, it does not represent walking as a method of travel to La Perouse.

Cycling infrastructure at La Perouse consists of a shared path along Anzac Parade from the intersection of Goorawahl Avenue, connecting to Military Road at Chifley. La Perouse is part of a popular cycling route. Sydney Cycling Club holds a 41 kilometre route between Bondi Beach and La Perouse every Saturday morning, and a 27 kilometre loop every Thursday morning.

### **5.4.2 Kurnell**

At Kurnell, footpaths are provided along the northern and southern sections of Prince Charles Parade and along the southern end of Captain Cook Drive between Prince Charles Parade and Polo Street. The footpath also extend along the northern side of Captain Cook Drive between Polo Street down to Torres Street.

The northern footpath located along Princes Charles Parade provides a connection onto the Monument Track within the National Park. The Monument Track runs within the park and connects to the Visitor Centre in the National Park on Visitor centre loop road off cape solander drive, and to other walking trails including Muru Trail, Yena Trail and Cape Bailey Track.

Captain Cook Drive in Kurnell forms a popular road cycle route with people cycling through the National Park to the Cape Solander Whale Observation Platform.

Sutherland Shire Council recently completed the Silver Beach Promenade which is a 1.5 kilometre shared path that connects from Bonna Point Reserve to the National Park.

## 6 Environmental aspects and impacts

### 6.1 Construction activities

The Project will involve a range of activities that could affect the operation of traffic and transport environment within and near the construction boundaries. These activities include:

- Establishing the construction site
- Deliveries
- Movement of vehicles within the construction boundaries to shift material around the site and undertake construction activities
- Removal of material and equipment from the site.
- Road closures to install new permeant water and power services
- Car Parking Closures and reduced lane width to undertake car park realignment at La Perouse
- Closure of the Monument Track at Kurnell
- Temporary occupation of car spaces at the Boat shed Café for permanent power connections
- Changes to Round a bout operation at La Perouse

### 6.2 Impacts

The potential for traffic and access impacts on the surrounding environment will depend on a number of factors. Primarily impacts will be dependent on the nature, extent and magnitude of construction activities and their interaction with the natural environment. Potential impacts attributable to construction might include:

- The type of vehicles in use
- The number of vehicles entering and exiting the site per day
- The busyness of the roads and pedestrian/cyclist routes
- Hours/duration of construction works

Traffic and access impacts attributable to the Project are anticipated. Relevant aspects and the potential for related impacts have been considered in a risk assessment in Appendix D of the CEMP. Chapter 7 provides a suite of mitigation measures that will be implemented to avoid or minimise impacts on the receiving transport environment.

### 6.3 Environmental Performance Outcomes

As outlined in Appendix A of the EIS, the project will reconfigure parking at La Perouse and additional parking will be provided within the National Park at Kurnell to cater for the additional demand from the operation of the ferry service.

The project will not resolve legacy parking issues at La Perouse and Kurnell. The reconfiguration of car parking at La Perouse is designed to ensure the safe operation of the road network. The construction and operation of the project will not change the existing network capacity or level of service at the nearest intersections to the project.

## 7 Construction traffic

Potential traffic impacts from the construction of the Project were assessed in Chapter 12 and Appendix K of the EIS. The following summarises the outcomes of that assessment.

### 7.1 Construction site traffic management

Traffic Guidance Schemes (TGS) have been developed for all work locations where there is any impact on the road network and road related areas and it is necessary to provide traffic control for either vehicles or pedestrians on the road network. The TGS will illustrate the signs and devices that will be installed to warn traffic, pedestrians and cyclist around or past, or if necessary, through the work site.

All TGS's will be submitted to the Principal. Within 24 hours of TGS being implemented, an inspection of the traffic control measures will be undertaken by a qualified Road Safety Auditor. Ineffective measures will be redesigned to provide optimum performance.

Access to site for construction vehicles will be as per section 7.5 and Haulage Route Maps 7-1 and 7-2. Vehicular Access within site compound would be within the Construction boundary and would not require any additional access through the National Parks and Wildlife Service Land outside the Construction Boundary.

### 7.2 Parking impacts

For the majority of the construction period, there would be no direct impacts on existing parking areas at La Perouse and Kurnell as the construction and construction compound areas are located outside of the road corridor. There would be temporary impacts to car parking areas where the proposed car parks are to be reconfigured from a 180-degree alignment to 90-degree alignment at La Perouse. Refer Fig 7-1 for Design Drawing and Attachment A – TGS 5 and 7 for TGSs used for the works. This would be completed within the three months winter period as per Minister's Condition of Approval (Refer E82). The reconfiguration of car parking would impact 20 bays at La Perouse (around six per cent of total parking in Anzac Parade loop).



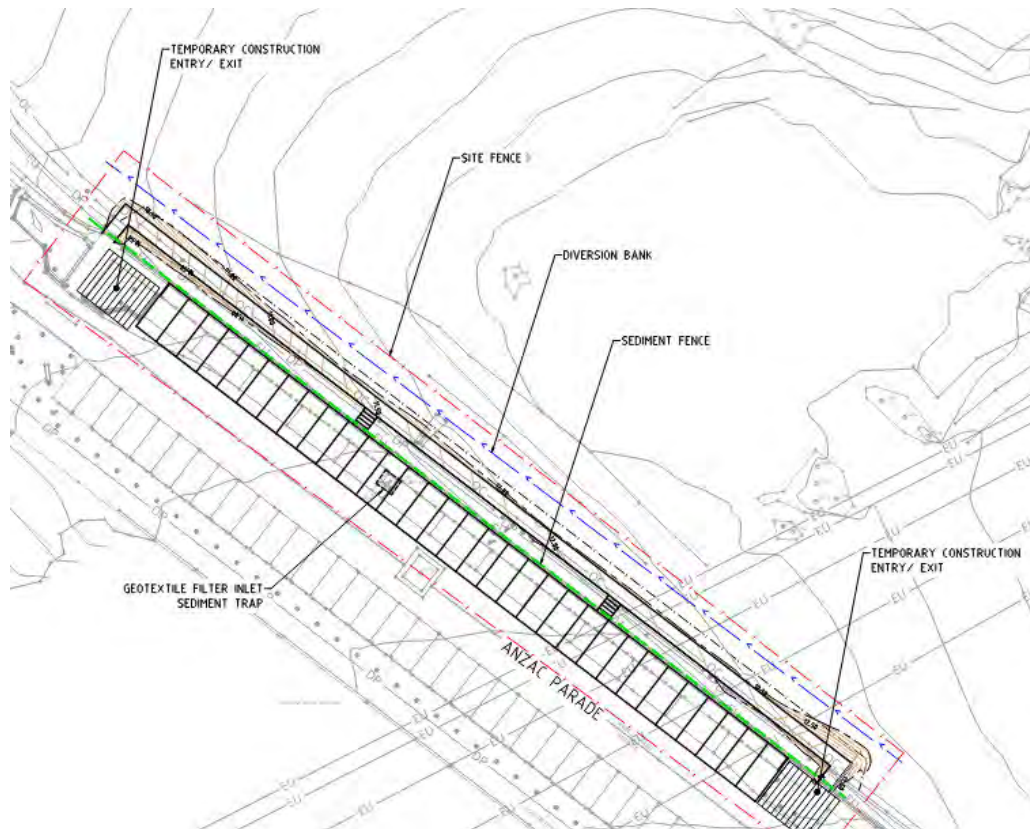


Figure 7-1 Car Park Re-alignment at La Perouse

### 7.3 Construction parking

Construction workers would arrive to site by construction vehicles, private vehicles, public transport and shared vehicles. The site compounds have been arranged to allow for all construction workers to park vehicles within the nominated site compounds. It would be the responsibility of the contractor to ensure that where this is not achievable, alternative arrangements are made for construction worker transport such that no construction vehicles will be parked on local roads. There is no provision for alternative parking arrangements outside of the construction boundary.

Regular inspections will be carried out to audit this requirement, detailed in section 15.3.

### 7.4 Intersection and road network impacts

Over the 13-month construction period, it is expected that about 20 heavy vehicles would arrive and leave La Perouse and 20 vehicles would arrive and leave Kurnell every day, increasing to 50 heavy vehicles during the site establishment period. Around 25 people would be working at each site per day during construction, which would increase to around 40 people during the main construction stage.

Construction is set to mainly take place during standard working hours which are:

- Monday to Friday 7am to 6pm
- Saturday 8am to 1pm
- No work on Sundays or public holidays.

For the majority of construction, temporary road diversions are not expected. Utilities installation and car parking reconfiguration may require diversion along the Anzac Avenue loop at La Perouse and along Captain Cook Drive, Kurnell.

The delivery and collection of large construction equipment such as cranes or piling rigs would be carried out with specific traffic management to avoid impacts on the road network and inconvenience to road users.

Provided that the nominated travel routes to the site are limited and have been approved within the project EIS, where possible, construction vehicles will be scheduled to access & egress the site outside of peak traffic periods to minimise disruption to schools, aged care facilities and alike. This strategy will be monitored during construction.

The volume of traffic expected from construction vehicles and construction workers could be easily supported on the existing road network without creating delay or impacting on existing network performance. The existing Level of Service and Degree of Saturation ratings indicate that existing intersections have significant capacity to accommodate the limited construction traffic anticipated.

## **7.5 Construction traffic routes**

Expected haulage routes would be via Anzac Parade, La Perouse, and Captain Cook Drive, Kurnell (refer to Figure 7-3 and Figure 7-3). Heavy vehicles would arrive and leave the site at regular intervals throughout the day. Construction workers would arrive at the construction sites typically before 7am and leave after 5pm.

If any additional construction traffic routes, not outlined in Appendix K of the EIS, are required throughout construction they will be covered in a Traffic and Pedestrian Impact Assessment that will be submitted to DPE for approval prior to use in accordance with MCoA E73 and E74.

Prior to the use of local roads for heavy vehicle haulage, a Road Dilapidation Report will be prepared for the road. A copy of the Road Dilapidation Report will be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used. If any damages occur to the roads due to the Construction Activities, the damages shall be repaired to the pre-works condition recorded or compensate the relevant road authority for the damage so caused in Dilapidation Report



Figure 7-2 Haulage route at La Perouse



Figure 7-3 Haulage route at Kurnell

## 8 Temporary Traffic Management

### 8.1 Staging Methodology – Overview

The Traffic Management and Staging Plans are the basis for the overall traffic management on the project, from these plans the various detailed site-specific Traffic Guidance Schemes, Vehicle Movement Plans & Pedestrian Movement Plans shall be developed.

In order to maintain safety and amenity of road users and the public and safety of the construction team, the traffic staging has been developed to achieve two key objectives during the project delivery phase. These are:

- Minimal interaction with existing network traffic to maintain continuous, safe and efficient movement of traffic;
- Simplicity and flexibility of traffic/construction staging.

Traffic staging designs are currently being completed. The designs will be developed in consultation with TfNSW & Council.

#### 8.1.1 Least Possible Disruption

McConnell Dowell has planned the staging of construction activities to cause the least possible disruption to the traffic flow and to access to adjacent properties. This staging will undergo both internal and external examination before being submitted to TfNSW for the necessary approval to commence the temporary traffic arrangements.

McConnell Dowell will liaise with TfNSW and other regulatory authorities when planning and implementing traffic management proposals.

McConnell Dowell intends to maintain access for emergency services at all times. However, where access may be temporarily impeded, emergency services such as police, ambulance and fire will be notified well in advance of the event. At such time, if additional concerns are raised by these agencies, McConnell Dowell will ensure that these are addressed.

#### 8.1.2 Safety in Design (SiD) Principles

McConnell Dowell has developed all temporary alignments including site gates as mitigating contributors to the 'errant vehicle management rationale' philosophy specified through the Austroads suite of design guidelines.

- Staging has been designed to comply with:
- Approaching sight stopping distance,
- Mutual merging sight distances,
- Lateral merge or diverge lengths,
- Acceleration and deceleration characteristics of site vehicles,
- Road geometry, and
- Ambient road conditions.

#### 8.1.3 Swept Paths

These turning arcs are relevant to vehicle movements to and from sites without impacting additional lanes or opposing traffic.

- The turning radii for a Hilux-type utility entering or leaving site at 10km/h = **12m**;
- The turning radii for a work truck entering or leaving site at 10km/h = **13.5m**; and
- The turning radii for a truck & dog combination entering or leaving site at 10km/h = **15m**.

Vehicle Type	Speed	Turning Radius
Passenger Vehicle, Normal Car, Utility 5.2 m length	5 km/h 15 km/h 20 km/h	6.3 m
Service Vehicle, Light Truck 8.8 m length	5 km/h 15 km/h 20 km/h	9.0 m 15.0 m 20.0 m
Single Unit Truck, bus, medium truck, flatbed, bogie 12.5 m length	5 km/h 15 km/h 20 km/h	12.5 m 15.0 m 20.0 m
Articulated truck, prime mover, semi-trailer, truck and dog combination 19 m length	5 km/h 15 km/h 20 km/h 30 km/h	12.5 m 15.0 m 20.0 m 30.0 m
B Double, prime mover and long semi-trailer 25 m length	5 km/h 15 km/h 20 km/h 30 km/h	12.5 m 15.0 m 20.0 m 30.0 m

Table 2 – Swept Paths

#### 8.1.4 Lane Widths

McConnell Dowell may reduce the lane widths during the implementation of temporary stages to suit proposed long term speed reductions and road geometry. However, McConnell Dowell will not reduce the lane width below 3.0 m, or the current arrangement (whichever is less), in areas where horizontal curves smaller than a 250m radius exist. Written risk assessments will be developed for all lane or edge clearances that do not conform to the AS1742.3 standard, unless specifically allowed under the contract.

#### 8.1.5 Simplicity & Flexibility of Traffic Staging

Another objective of the staging of the Works is to keep the sequence of traffic switches as simple as possible while maintaining flexibility to adapt to unforeseen circumstances during the course of the construction program.

McConnell Dowell has developed a design that takes into account the construction staging plans as well as placing an emphasis on providing a safe and effective traffic staging solution. The design along with the construction staging and methodology has been planned to cause the least possible disruption to traffic.

In relation to traffic staging design, the Project has been split into 2 main areas (north and south). Each site will contain a number of substages to facilitate minor adjustments to intersections and resident / business access.

## 8.2 Long-Term Traffic Management

McConnell Dowell will manage all long-term traffic strategies in compliance with the CTMP, relevant traffic standards and to the satisfaction of the relevant stakeholders. This TMP introduces the following strategy as shown in the long-term traffic staging plans listed below (Refer to Attachment A for the drawings):

Long Term Traffic Management Description		
Location	Drawing No.	Description
Anzac Parade (La Perouse)	MCCD-KAM-TGS-0002-01	Long-term sign setup at primary compound site gate
	MCCD-KAM-TGS-0004-00	Aftercare TGS to facilitate works near the Boat Shed Café (electrical pillar works)
	MCCD-KAM-TGS-0006-00	Long-term signs & devices setup on Anzac Parade
	MCCD-KAM-TGS-0007-00	Swept path analysis
	MCCD-KAM-TGS-0009-00	Long-term signs & devices setup to facilitate water main extension works
Kurnell	In development	Long-term signs & devices

Table 3 - Long term temporary staging drawings included in this TMP

It should be noted that Stage 0 & 1 designs for the northern and southern area have been included in this CTMP. The subsequent traffic stages have been excluded as they are currently in development. The subsequent traffic staging drawings be presented & incorporated in subsequent sub-plans.

### 8.3 Short-Term Traffic Management

See Attachment B for the TGS(s) / TGS' to be installed which will enable implementation of the long-term traffic staging designs explained in Section 8.2. The required TGS(s) are listed below:

Short-Term Traffic Management Description		
TGS No.	Type of Road Occupancy	Location
MCCD-KAM-TGS-0001-01	Pedestrian Management & intermittent stoppages to facilitate construction of primary compound site access	Anzac Parade (La Perouse)
MCCD-KAM-TGS-0003-00	Pedestrian management to facilitate works near the Boat Shed Café (electrical pillar works)	
MCCD-KAM-TGS-0005-00	Lateral shift of traffic to facilitate establishment of construction zone	
MCCD-KAM-TGS-0008-00	Shoulder closure to facilitate water main extension works	
MCCD-KAM-TGS-0010-00	Anzac Parade loop closure	
In development	Site access construction	Kurnell

Table 4 – List of TGS's to be installed

## 9 Traffic Controls, Signs & Devices

### 9.1 Traffic Controllers (TC)

McConnell Dowell will engage a 'top tier' Traffic Control sub-contractor(s) which meets the following pre-qualification minimum professional requirements:

- TfNSW Category G approved;
- Current approved Enterprise Bargaining Agreement;
- Quality, Environmental and WH&S Systems in place;
- Currently Insured;
- Workers Compensation;
- Public Liability;
- Fleet; and
- Professional Indemnity.

### 9.2 Qualification of TC

All Traffic Controllers (TC) deployed on the Project will comply with this TMP and hold a relevant RMS qualification as shown in the table below.

Traffic Control Roles	RMS Traffic Control Training Course
Control traffic using 'Stop/Slow' bat	Traffic Controller (previously referred to as Blue Card)
Set up and work with TGS drawn by others	Implement TGS's (previously referred to as Yellow Card)
Design new traffic management plans for roadworks, produce major upgrades of standard plans and/or inspect TGS's on any road construction site	Prepare a Work Zone Traffic Management Plan (previously referred to as Red Card and Orange Cards)

Table 5 – Traffic Control Qualifications

McConnell Dowell will ensure that all persons who are required to perform the duties of a traffic controller undertake training in the following relevant training package(s) and are examined and certified as competent to perform their respective traffic controller duties:

Their actions will be in compliance with the TCAWS Manual, the site-specific TGS/TGS and ROL/SZA issued for that site. They will carry their qualification card on their person at all times when controlling traffic.

The location of traffic controllers will be identified in each TGS/TGS. Each TGS/TGS 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.

### 9.3 Spacing of Traffic Controllers

Traffic controllers located on each of the approaches to the road occupancy closest to the road occupancy, and within the road occupancy itself, will be positioned no greater than 400 metres apart except where approved in accordance with the conditions of the ROL.

### 9.4 Proposed TC

Prior to the commencement of any work on the Construction Site involving controlling and directing traffic, McConnell Dowell will submit to the RMS the names of proposed Traffic Controllers and the

registration numbers and expiry dates of their Cards. Submission of these details constitutes a **Hold Point**.

## 9.5 Signage - Regulatory, Advice & Guidance

During the construction of the Works, there will 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 Ver 6.1;
- AS 1742.3 and 1743 Road Sign Specifications;
- AS 1742.1-15;
- AS 1743 Road Signs – Specifications;
- TfNSW Signs Index Database;
- AUSTRROADS' Guide to Traffic Engineering Practice, Parts 1-15.

## 9.6 Location of Signs

All signs installed in the shoulder or verge, within the clear zone, will be frangible. McConnell Dowell 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.

## 9.7 Advice Signage – Community Information

The early implementation of directional signposting and driver information signposting, to provide advance warning of changes to traffic conditions, is a key element in McConnell Dowell strategy to minimise disruption to traffic.

To complement the Community Liaison Strategy and comply with the requirements of TfNSW, McConnell Dowell will:

- Post temporary large static driver advisory signs at least 1 week prior to the implementation date for changes to the road network or traffic systems,
- Provide temporary large static directional signage to guide motorists seeking businesses or other properties which may be affected by construction works on an ad-hoc basis before the implementation date for changes to the road network or traffic systems,
- Provide notices and signposting at pedestrian and cycle crossings detailing changes at least 10 days before the implementation of those changes,
- Provide VMS advertising changes to alignments, intersections 10 days before the implementation of those changes.

## 9.8 TMP Signage

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



- Identify any impacts on existing signs;
- Obtain TfNSW approval for the general advance warning signage strategy for the various work areas and implement at the commencement of construction;
- Ensure consistency of new signs/temporary signs and existing signs on the road network; and
- Utilise VMS messages along the project area for a 10-day period leading up to the commencement of construction then remove and identify and rectify any inconsistencies/defects through regular inspections.

Signage plans for the Works will be developed and included as attachments in the site specific TMPs.

The McConnell Dowell Traffic Manager 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. The design, manufacture and installation will be in accordance with AS1742.

## 9.9 Roadwork Speed Limits

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

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

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

Pursuant to AS1742.3 and the TCAWS Manual, in order to maintain the current speed limits through some of the work zones, the use of safety barriers will be required to protect work and workers. See section 9.11 below.

When working adjacent to traffic on local roads the speed limit selection will be based on the following criteria:

- Degree of vehicular and pedestrian conflicts;
- Type and extent of the work and
- Characteristics of the road and proximity of workers to passing traffic.

## 9.10 Regulation of Temporary Speed Zones

McConnell Dowell will implement the following strategies to enforce any speed limits which are reduced as part of long-term traffic management strategies (TMP's):

- If required, involve police presence to enforce speed. The Traffic Manager (or their delegate) should contact the Police Traffic Coordinator at an early stage of the Project. Enforcement might include marked police vehicles patrolling the construction site and/or the inclusion of a stationary marked police vehicle with an operating flashing blue light positioned within the construction area or, provision of police enforcement facilities.
- If required, the use of portable Variable Message Signs to enhance advanced warning sign posting and provide changed traffic condition information to road users.

## 9.11 Safety Barrier Systems

McConnell Dowell will employ the ArmorZone water filled barrier system. McConnell Dowell will only deploy safety barriers of a type currently approved by the TfNSW for use on state & local roads relevant to the speed environment and the crash test Level (TL). See TfNSW Acceptance link (<https://roads-waterways.transport.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 compliant with:

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

McConnell Dowell will not use safety barriers or safety barrier systems for delineation as a substitute for line-marking. Safety barriers deployment locations are included in the traffic staging drawings provided in **Attachment A of this TMP**.

## 9.12 Pavement Marking

Where temporary line marking is required, McConnell Dowell will engage a 'top tier' Line-marking sub-contractor(s) which meets the following pre-qualification minimum professional requirements:

- TfNSW Category G approved,
- ISO AS/NZS 4801:2001 Compliant,
- Member of the Paint Contractors Certification Program (PCCP),
- Safe Work Method Statements (SWMS),
- Current approved Enterprise Bargaining Agreement,
- Quality, Environmental and WH&S Systems in place, and
- Currently Insured -
- Workers Compensation,
- Public & Products Liability,
- Fleet,
- Professional Indemnity.

McConnell Dowell will apply pavement marking in compliance with AS2009, The RMS Delineation Manual sections 3 to 15 and AS 1742. Redundant lines will be permanently removed to negate ambiguous alignments in wet conditions or direct sun light.

## 9.13 Lane Widths

McConnell Dowell will reduce the lane widths during the implementation of temporary stages in conjunction with speed reductions mindful of traffic volumes to best address the requirements of construction activities and tidal traffic flows.

On straight sections of road, lanes and shoulders will be reduced in width to the AUSTRROADS minimums. However, McConnell Dowell will not reduce the lane width below 3.0m, or the current arrangement (whichever is less), in areas where turning movements are expected.

## 9.14 Variable Message Boards (VMS)

McConnell Dowell may deploy portable VMS signs to corroborate TMP and community notifications. If required, these will be installed at prominent locations on the approach to and through the Project

as agreed with TfNSW & Council. VMS messages will not be deployed until they are approved by TfNSW.

The temporary VMS will be portable, trailer mounted capable of displaying up to three screens, with three lines and eight characters per line. They will be remotely operated and capable of being synchronized with the TMC VMS network. McConnell Dowell will be able to uplift, relocate or remove these VMS within two hours of being requested by TfNSW.

These VMS will be controlled remotely to enable immediate changes to the messaging. For major works and as required by the conditions of a ROL, the VMS will be installed at least one week prior to the day of the implementation of the works to provide advance notification to all road users of the future road occupancy.

Each portable VMS will be located strategically to target traffic using road network around the project boundaries. The position of each board will consider the specific geography of the road, the impacts on residents and businesses and will avoid conflicts with existing static or electronic signage.

## **9.15 Messages to Displayed**

McConnell Dowell will develop advance messaging in collaboration with TfNSW / Council. These will be detailed in site/stage specific TMP's or an alternative communication method (email or meeting).

## 10 Vulnerable Road Users

### 10.1 Pedestrians

McConnell Dowell will maintain all current formal and informal pedestrian connectivity and functionality provided within and directly adjacent to the project area by preserving existing connections or providing alternative connections. It should be noted pedestrian traffic also includes patrons that utilise mobility scooters.

Where existing pedestrian routes are maintained, McConnell Dowell will implement the following controls as a minimum:

- Physical barriers delineating construction activities from pedestrian routes
- Traffic management and gate personnel during heavy traffic
- Maintain minimum footpath widths

Temporary detours would be required where construction activities occur across existing footpaths. Locations that would be impacted at La Perouse include:

- Footpath to access La Perouse Point
- Footpath between the proposed wharf location and the La Perouse Boatshed.

Locations that would be impacted at Kurnell include:

- Monument Track, between Princes Charles Parade and the proposed wharf location.

In order to maintain access to key tourist attractions at both La Perouse and Kurnell, detours would be established as required during the construction period, with an aim to minimise any additional travel time for pedestrians where possible. Alternative routes will be provided prior to the restriction or removal of existing access routes.

Construction would not directly impact the existing cycling shared paths along Anzac Parade, La Perouse or Prince Charles Parade, Kurnell.

The effectiveness of these provisions will be monitored and adjusted as required, in consultation with TfNSW.

McConnell Dowell will manage the pedestrian desire lines with temporary footpaths that comply with the requirements of AUSTRROADS 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, McConnell Dowell will provide alternate pedestrian access routes that are clearly signed and delineated.

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 TGS's / TGS' prior to the construction activities commencing.

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

- Clearly define temporary pedestrian path arrangements by using appropriate signage;
- maintain a smooth, even surface on all temporary pedestrian paths; and
- conduct regular inspections to maintain pedestrian paths free of trip hazards.

### 10.2 Footpath Requirements

McConnell Dowell will ensure that adequate provision is made to accommodate existing pedestrian movements around the various work areas.

As a minimum, McConnell Dowell will provide:

- A fit for purpose, all weather sealed path as per TCAWS section 4.4.2 (Pedestrians)
- Signage for pedestrians for any route changes; and
- Ensure appropriate cleanliness of all pedestrian and cyclist paths at all times.

Pedestrians must not be directed to travel between any safety barrier system and live traffic.

### **10.3 Cyclists**

McConnell Dowell will maintain all current formal and informal cyclist connectivity and functionality provided within and directly adjacent to the project area by preserving the existing facilities or providing upgraded alternative facilities. McConnell Dowell will manage the cyclist desire lines with temporary routes that comply with the requirements of TCAWS section 4.4.3, AS1742 Part 9 – Bicycle Facilities, AUSTRROADS Guide to Traffic Management Part 10 and AS1743 – Road Signs Specifications. Alternative routes will be provided prior to the restriction or removal of existing access routes.

Cyclist volumes on the local roads within the project boundary are low and dedicated cyclist facilities are generally provided outside the work sites. Where practical, McConnell Dowell 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.

In addition to the footpath requirements stated above (section 10.2) McConnell Dowell recognise that cyclist activity exists on the existing alignments and will (where practical) at least consummate conditions with those existing prior to construction.

Where possible, McConnell Dowell will implement the following provisions for cyclists:

- Provide sufficient signage to inform cyclists of any changed traffic conditions;
- Provide appropriate shoulders for cyclists in front of any temporary barriers if alternative provisions are not provided;
- Ensure appropriate surface and cleanliness of shoulders in front of barriers for the safe passage of cyclists at all times; and

Install all signposting, bollards and barriers wherever necessary with particular attention to signposting at intersections in advance of changes to traffic conditions. All cyclist thoroughfares will be maintained throughout construction, and no alternative routes have been proposed under the existing scope of works. The mechanism has been retained for alternative routes for any unforeseen changes of scope under the contract. Consultation will be carried out through relevant stakeholders and authorities if alternative routes are seen necessary under unforeseen scope change.

#### **10.3.1 La Perouse**

Cycle thoroughfare will be maintained at all times during construction at Anzac Parade. Where works are occurring, traffic controllers will be in place to assist with movements past the site.

#### **10.3.2 Kurnell**

Due to spatial constraints and to optimise safety, McConnell Dowell propose to close the Monument Track. Thus cyclist thoroughfare will not be maintained on the Monument Track. All other thoroughfares will be maintained throughout the project at Kurnell.

### **10.4 Public Transportation**

It is not anticipated that these works will affect the existing bus stop facilities. However, McConnell Dowell will strive to minimise disruption to the current level of bus and taxi services. Local bus service and taxi companies will continue to be consulted during the construction period to minimise disruption to services via the consultation process.

## 10.5 Heavy Vehicles & Freight Industry

The roads within the project boundaries are not nominated routes for Over Size and Over Mass vehicles. These works will not affect traffic flows along the existing network.

## 10.6 Property access

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, and parking arrangements must be developed in consultation with affected businesses and implemented prior to the disruption. Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.

Consultation will be carried out with existing land or utility owners if property access is necessary during the project. Alternative access, protection, and reinstatement to an equivalent standard will be discussed and agreed on as a minimum.

The current scope of work does not require property access outside of the project boundary. In unforeseen circumstances or change of scope, consultation will be carried out meeting the requirements of the TTAMP and MCoA.

## 10.7 Emergency vehicle access

Emergency vehicles would access the La Perouse wharf from Anzac Parade. At Kurnell, emergency service vehicles would use the existing Monument Track footpath than runs along the foreshore. All access points for the Project site would ensure that it does not inhibit emergency vehicle access to the construction site or surrounding properties.

## 10.8 Key Stakeholders

The TMP will be developed in consultation with the following key stakeholders -

- Council (Road authority)
  - Randwick City Council
  - Sutherland Shire Council
- TfNSW
  - Customer Journey Planning (CJP)
  - Transport Management Centre (TMC)
- Utility providers (Telstra, Endeavour Energy & Sydney Water)
- Local businesses

## 10.9 Traffic Risk Workshop

The McConnel Dowell in co-ordination with TfNSW will facilitate a traffic risk workshop with site management staff, traffic control organisation, Police and local Council representatives. The context of the traffic risk workshop will include (but not limited to):

- Contract requirements relating to traffic management
- Traffic Management Plan
- Planning for traffic switches for construction staging
- Safety barrier systems, including their installation, maintenance & removal
- Delineation, signage and guidance to motorists, including their installation, maintenance & removal
- Street lighting arrangements for each construction stage including any additional lighting at intersections as construction proceeds

- Road Safety Auditing
- Traffic Incident Response
- Transport of OSOM items;
- Incorporating management of COR responsibility requirements
- Knowledge requirements and training required to rectify any deficiencies
- Routine maintenance of roadways
- Community communication and engagement on temporary traffic arrangements

# 11 Road Occupancies

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

For the purposes of this document:

**“Free flow of traffic”** means unimpeded traffic flow conditions on the affected side roads prior to the commencement of any McConnell Dowell work.

**“Road Occupancy”** means any part of McConnell Dowell 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 in the vicinity of the various work zones, or any temporary alignments being used by public traffic 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 McConnell Dowell labour, sub-contractors, equipment or plant that requires a traffic guidance scheme; 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.

## 11.1 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.

McConnell Dowell will make available to TfNSW Representative or TfNSW Surveillance Officers, upon their requests and at the location of the road occupancy, a copy of the ROL.

All McConnell Dowell 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 Contractor’s Work; and
- Regularly re-trained on the ROL terms, conditions and requirements throughout the period of the road occupancy.

Notwithstanding any ROL granted by TMC for any lane or shoulder closure, (where possible) McConnell Dowell will co-operate with TfNSW and other authorities, such as the Police or State Emergency Services, to facilitate traffic flows on the roadway through the Site. TfNSW may at any time direct McConnell Dowell to temporarily cease work and re-open any closed lane or shoulder. They may also direct McConnell Dowell to cease work and divert resources to assist with emergencies. McConnell Dowell will keep a copy of the ROL on site at all times when the licence is in operation.

McConnell Dowell will prepare and submit all ROL applications to the TMC.

The TMC grants, varies and revokes all ROLs. The TMC will review the ROL applications and will be responsible for their approval. The granting or varying of a ROL does not:

- Constitute approval by the TMC of any actions that relate to traffic safety, work health and safety or environmental issues and management;
- Relieve McConnell Dowell or any person of their responsibility for compliance with legislation, regulations or established operational procedures; or



- Change any management accountability or responsibility.

Once an ROL is granted, McConnell Dowell will submit a copy of the approved ROL to TfNSW.

Additionally, an ROL will be obtained from the TMC in all instances where a lane closure is required or reduction in the speed limit to complete the above works.

## 11.2 Road Occupancy Fees

McConnell Dowell is not required to pay Road Occupancy Fees.

## 11.3 Council Road Occupancy Approvals

McConnell Dowell will maintain access to property entrances adjoining the Works and local traffic throughout the project. This includes temporary ramps for local traffic and access to side streets where necessary.

Local road access shall be maintained with full accessibility of the original configuration until the full functionality of the final configuration can be provided. McConnell Dowell will not undertake any local road access restrictions, property restrictions and/or closures without the prior approval of the TfNSW and Council Authorised Persons.

### 11.3.1 Council Permits

McConnell Dowell will obtain concurrence of the applicable Council as required prior to the installation of temporary traffic controls/devices and/or occupying the local road network. The McConnell Dowell submission / discussion to Council will include:

- brief details of the works to be undertaken;
- any relevant design drawings of the works;
- program of the works;
- copies of TGS's / TGS';
- if applicable, details of Speed Zone amendments sought; and
- Contact details of a construction Site Representative.
- Traffic modelling, if required.

Whilst Council may be the road authority to approve and issue road occupancy permits on council roads, all works relating to the Project must include approval from TMC.

## 11.4 Major Impacts

McConnell Dowell may implement major impact works (contraflows, detours etc) during the construction period.

McConnell Dowell will undertake the following prior to the commencement of 'major Impact Works':

- All necessary approvals to undertake night work have been obtained; and
- Hold a meeting with the relevant parties at least 2 weeks prior to implementing the restrictions, to discuss the detailed traffic management arrangements.

McConnell Dowell will submit a TMP to TfNSW, which will comply with the requirements as listed below. Proposed side road closures and associated detours shall meet the following criteria:

- Are suitable for predicted traffic volumes i.e. do not cause unnecessary congestion or bottlenecks on other roads.
- Are signed in accordance with the relevant Australian Standards.
- Are supported by public notices and advance warning signs placed in positions that will enable drivers to take evasive measures to avoid road closures.

Proposed detours and responses addressing the above criteria shall be outlined in the TMP and clarified / agreed with relevant stakeholders a minimum of 2 weeks before the detour is to take effect. Emergency services shall be fully informed of these closures and detours.

## 12 Traffic Management Documents

### 12.1 Construction Traffic, Transport and Access Management Plan (TMP)

This TMP is McConnell Dowell Traffic Operations Manual for the project which represents a broad traffic impact statement. 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. This particular TMP also presents the primary stages of works along with the associated traffic planning documentation.

### 12.2 Stage Specific Traffic Management Plan (STMP)

If additional traffic stages are required, stage specific Traffic Management Plans (STMP) conforming to AS 1742.3 and the TfNSW Traffic Control at Worksites Manual **may** be developed for the works. These plans will be submitted throughout the duration of the project to explain traffic arrangements for future traffic stages that aren't captured as part of this TMP. These plans will contain additional written details describing the nature of the works. 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
- Maintain traffic flow.

The TMP(s) will be prepared by the McConnell Dowell Traffic Manager and submitted to TfNSW for consideration and approval.

### 12.3 TMP Development Time-line

The McConnell Dowell Traffic Manager will prepare TMP's and submit them to TfNSW.

#### 12.3.1 30 Working Days from Event:

The Traffic Manager will nominate the preferred 'Event Date' and table a preliminary TMP to TfNSW with a full written component and conceptual representation of the temporary design drawings.

These drawings may be conceptual in nature but must clearly explain the proposed alignment changes and positions of control treatments including, signage, pavement marking and barrier safety treatments in sufficient detail to generate an accurate communications strategy.

This design does not need to be independently road safety audited at this stage. In addition, any short-term TGS's / TGS' designed to facilitate major road occupations like detours and side tracks should be proposed at this time.

#### 12.3.2 20 Working Days from Event:

The Traffic Manager will submit the revised TMP to TfNSW with a full written component and draft Traffic Staging Drawings at approximately 85% design.

- A run-sheet nominating the program of activities on the 'Event' shift will be presented in draft format. Similarly, the Communications strategy including VMS placement and messaging will be submitted and discussed.
- The key design elements of the 85% design should provide the Community and Stakeholder Manager with sufficient information to finalise media broadcasts.
- At this time the TGS's will be complete and ready for ROL applications.

- The 'Event Date' should be confirmed at this time.

### **12.3.3 10 Working Days from Event:**

It is expected that TfNSW will have provided sufficient feedback to the Traffic Staging Drawings and the TMP document to enable the completion of these designs to 100%. They will then be re-submitted inclusive of any recommended changes with design verification and road safety audits, if applicable. In addition, all minor TGS's enabling single/dual lane closures will be included in the TMP as well as applied for through the OPLINC system.

At this time the Traffic Manager will also provide a copy of the approved ROL enabling the installation of TGS's required to implement the TMP, to the Community and Stakeholder Manager for Out of Hour Notifications. It is expected that these meetings will be part of a routine process including the Community & Stakeholder Engagement personnel from McConnell Dowell and TfNSW.

## **12.4 Traffic Guidance scheme (TGS)**

A TGS / TGS is a diagram showing signs and devices arranged to warn traffic and guide it around, past or, if necessary, through a work site or temporary hazard. It will comply with the TCAWS Manual.

TGS's are diagrams that illustrate the signs and devices that will be installed to warn traffic, pedestrians and cyclist around or past, or if necessary, through the work site. These plans will address the specific control measures required to safely work on the road during a single shift period. The TGS shall include:

- Types and locations of permanent regulatory (R series) and warning (W series) signs;
- Types and locations of temporary signs (T series) including advance warning signs and VMS;
- Locations of permanent and temporary traffic signals;
- Locations of any required Traffic Controllers;
- Locations and lengths of taper and safety buffer areas;
- Locations of safety barrier systems including end terminals;
- Pedestrians and cyclists paths;
- Locations of entry and exit gates to work areas, individually numbered and signposted;
- Details of access to adjoining properties, car parking areas, and side roads;
- Pavement marking details, including types of delineation required, turning arrows, stop/holding lines and other road markings, types and positions of raised pavement markers and other delineation devices; and
- Location of temporary lighting, if required.

These plans will be used to corroborate applications for Road closure/ part closure Permits. A TGS can only be prepared by a person who has undertaken and passed the TfNSW Prepare Work Zone Traffic Management Plan training course and holds a current accreditation.

## **12.5 Vehicle Movement Plans**

Where applicable, McConnell Dowell will provide a VMP together with the TGS, 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 TGS.

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

## **12.6 Pedestrian Movement Plans**

Where applicable, McConnell Dowell will provide a PMP with TGS'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.

## **12.7 Preparation & Implementation of TMPs & TGS'**

Numerous short-term TGS' and semi-permanent TMP's will be developed to facilitate the works. TGS' and TMPs will be prepared in accordance with all of the Project documentation.

McConnell Dowell has developed a robust and comprehensive process for the design, preparation, implementing, inspecting and auditing of temporary traffic control measures. The process includes a number of checks/audits to ensure that the TMPs are both designed and implemented correctly and meet all project requirements.

The requirement for temporary traffic control will be identified by the Traffic Manager in consultation with the requesting construction unit.

The Traffic Manager will then work closely with the relevant construction area engineers, designers, community consultation personnel and external specialist traffic management consultants (if required) to develop the TMP.

TMPs will be then designed approved and implemented. All TMPs will be prepared by the Traffic Manager. All TGSs and TMP layout drawings will be prepared and certified by the appropriate personnel.

Particular TMP proposals may require traffic engineering analysis e.g. intersection alterations or road closures. When required, the traffic analysis and modelling to confirm that both the proposed and finalised traffic control measures are viable will be conducted.

Regular monitoring and audits of the implemented TMPs will be undertaken at the direction of the Traffic Manager pursuant to the audit protocols of this document.

The finalised TMP will be reviewed and signed by the TfNSW Traffic Representative before being submitted to the relevant approval authorities. Once these signature(s) have been received and the TMP checked, the TfNSW Traffic Representative will release the Hold Point. Implementation of the TMP can then proceed.

## **12.8 Mechanism for Monitoring the Performance of This Plan**

McConnell Dowell will monitor operational compliance with this Plan and the obligations contained within it. The McConnell Dowell Project Traffic Representative will conduct a monthly review of the Traffic, Transport and Access Management Plan versus the projects' operational practices to review the effectiveness of TMP and identify new risks that have not been previously encountered.

If required, amendments will be made to this plan to address changed conditions, circumstances or procedures. The new revised document will be submitted to TfNSW & Council for review, feedback and approval of the changes.

## 12.9 Related Schedules

### 12.9.1 Schedule of Hold Points/Witness Points

Type	Description of Hold Point / Witness Point
Hold Point	Submission of traffic control personnel details.
Hold Point	Submission of Traffic Management Plan (TMP) and associated documents
Hold Point	Submission of Traffic Control Plan (TCP) lately known as Traffic Guidance Scheme (TGS), where submitted separately from TMP
Hold Point	Opening of temporary roadway or detour to traffic

### 12.9.2 Schedule of Identified Records

Description of Identified Record	Responsible Person
Risk issues identified in Traffic Management Risk Assessment Workshop	MCD Project/Site Engineer
Records of times when temporary speed zoning signs are in place	MCD Project/Site Engineer
Road safety audit report and associated documentation	MCD Project/Site Engineer
Inspection reports on traffic control measures, prior to opening of temporary roadways and detours	MCD Project/Site Engineer
Road safety audit report of traffic control measures implementation	MCD Project/Site Engineer
Inspection reports of traffic control measures in place	MCD Project/Site Engineer

## 13 Traffic Incident Management

In the event of an environmental incident, Transport for NSW's Environmental Incident Procedure will be implemented by McConnell Dowell as outlined in Section 7.2 of the CEMP.

In addition to this McConnell Dowell will also provide traffic control by qualified traffic controllers for emergencies such as crashes and spillages along the work corridor. Where the New South Wales Police Force, Emergency Services, TfNSW and TMC are controlling an incident, the Project team shall comply with their requirements and instructions.

Traffic Control at Worksites Manual version 6.1 outlines in Section 5.3.1 the content and requirement of a Traffic Incident Plan (TIP). This plan will outline the processes required to be undertaken and associated responsibilities of staff to address incidents if and when they happen within the worksite, and on the road.

The following summarises the purpose and scope of this document

- Names and contact information for responsible persons on the project;
- Contact details of the person responsible for the works, stakeholders, TMC, police, emergency services;
- Procedure to be followed in the event of a traffic incident at the site;
- List of plant that will be available for moving portable concrete safety barriers (if in use on-site);
- Procedure for carrying out investigations of traffic incidents involving members of the public or workers, including;
  - Checking that the traffic measures in place in accordance with the TMP and ROL conditions
  - Carrying out a "drive through" and video recording of the roadway, including the location where the incident has taken place;
- Information required for initial notification to the person responsible for the works and where necessary other stakeholders;
- Format for reporting and communication of the results of the traffic incident investigations and lessons learned.

### 13.1 Definitions

Term	Definition
Incident	<p>Any abnormal event which prevents the subject road and all connecting roads within the Project boundary from being open to the public for the safe continuous and efficient thoroughfare of road users.</p> <p>Further, an "Incident" requires an urgent response to:</p> <ul style="list-style-type: none"><li>• Protect or repair the road, property or persons,</li><li>• Provide access for Emergency Vehicles and/or traffic control,</li><li>• Prevent any occurrence which may cause damage to the road or compromise the safety of persons or property.</li></ul>

Term	Definition
Emergency	An event due to an actual or imminent occurrence (such as fire, collision, explosion, terrorist act, flood, storm, earthquake, epidemic or act of war) which: <ul style="list-style-type: none"> <li>• Endangers or threatens to endanger the safety or health of any persons,</li> <li>• Destroys or damages or threatens to destroy or damage, any property.</li> </ul>
Emergency Services	Includes the New South Wales Police Service, Fire & Rescue New South Wales (FRNSW), New South Wales Ambulance Service and State Emergency Services;

Table 6 - Roles & Responsibilities

## 13.2 Strategy

### 13.2.1 Role of McConnell Dowell

The occurrence of incidents, both planned and unplanned, on within the project boundaries may have negative impacts on the surrounding road network.

McConnell Dowell will:

- Take an active support role in the reporting of incidents occurring within the project boundary,
- Inform the TMC of incidents detected on the road and provide on-going situational reports until that incident is resolved,
- Provide close support to the Emergency Services, including traffic control on the approach to and at the incident.

### 13.2.2 Role of McConnell Dowell Site Traffic Representative

The McConnell Dowell Site Traffic Representative will:

- Maintain a record of all incidents that McConnell Dowell observe, report and provide assistance to within the Project boundary,
- Determine trends, identify concerning issues and monitor effective progress of the TIP,
- Provide monthly update briefings to the relevant stakeholders on the progress of the TIP and incidents generally,
- Maintain on-going communication with the TMC and the Principal regarding traffic matters;
- Review the TIP and relevant site specific TMP following incidents;
- Manage the deployment of project resources to assist in managing and clearing incidents.

### 13.2.3 Legislation

McConnell Dowell does not have legal authority to stop a vehicle (except as a Traffic Controller as part of a Traffic Guidance Scheme), nor to inspect, detain or compel it to be towed. On occasions McConnell Dowell may request the Police (or TMC/CJP) to manage the clearance of the road and removal of un-driveable vehicles which are in a hazardous position or would otherwise impact the safe movement of construction vehicles to and from site.



### 13.3 Incident Response

McConnell Dowell will assist with the management of incidents on the road network within and adjacent to the site.

#### 13.3.1 Incident Types

Incident Code	Description
01	Motor Vehicle Crash (All DCA codes)
02	Parked Vehicle (obstructing thoroughfare) driver present
03	Vehicle Fire
04	Abandoned / Unattended Vehicle
05	On-coming vehicle
06	Animal on carriageway
07	Carriageway closure (un-planned)
08	Debris or spill on carriageway
09	Congestion
10	Pedestrian on carriageway
11	Damage of Traffic System / Sign
12	Discharge of missile (object projected onto carriageway)
13	Civil Unrest (March / Protest on carriageway)
14	Bomb threat
15	Terrorist threat / action

Table 7 - Incident Types (Code and Description)

#### 13.3.2 Definition for Coding Accidents (DCA)

All crashes will be recorded with the relevant DCA code. The 'at fault' vehicle will be nominated as vehicle 1 or unit 1 in all reports. A 3-digit code will be entered in the box denoted on the relevant form, determined by the matrix in Figure 1, below.

	0	1	2	3	4	5	6	7	8	9
	PEDESTRIAN on foot, in toy / pram	INTERSECTION VEHICLES FROM ADJACENT APPROACHES	VEHICLES FROM OPPOSING DIRECTIONS	VEHICLES FROM SAME DIRECTION	MANOEUVRING	OVERTAKING	ON PATH	OFF PATH, ON STRAIGHT	OFF PATH, ON CURVE	PASSENGERS & MISCELLANEOUS
00	OTHER 000	OTHER 100	OTHER 200	OTHER 300	OTHER 400	OTHER 500	OTHER 600	OTHER 700	OTHER 800	OTHER 900
01	NEAR SIDE 001	CROSS TRAFFIC 101	HEAD ON (not overtaking) 201	REAR END 301	LEAVING PARKING 401	HEAD ON (incl. side swipe) 501	PARKED 601	OFF CARRIAGEWAY TO LEFT 701	OFF CARRIAGEWAY ON RIGHT BEND 801	FELL IN / FROM VEHICLE 901
02	EMERGING 002	RIGHT-THRU FROM LEFT 102	RIGHT-THRU 202	REAR LEFT 302	ENTERING PARKING 402	OUT OF CONTROL 502	DOUBLE PARKED 602	OFF CARRIAGEWAY TO RIGHT 702	OFF CARRIAGEWAY ON LEFT BEND 802	STRUCK WHILE BOARDING OR ALIGHTING 902
03	FAR SIDE 003	LEFT-THRU FROM RIGHT 103	RIGHT-LEFT 203	REAR RIGHT 303	PARKING VEHICLES ONLY 403	PULLING OUT 503	ACCIDENT OR BROKEN DOWN 603	LEFT OFF CARRIAGEWAY INTO OBJECT 703	OFF CARRIAGEWAY ON RIGHT BEND INTO OBJECT 803	STRUCK TRAIN / AEROPLANE 903
04	PLAYING, WORKING LYING, STANDING ON CARRIAGEWAY 004	RIGHT-THRU FROM RIGHT 104	RIGHT-RIGHT 204	U-TURN 304	REVERSING 404	CUTTING IN 504	VEHICLE DOOR 604	RIGHT OFF CARRIAGEWAY INTO OBJECT 704	OFF CARRIAGEWAY ON LEFT BEND INTO OBJECT 804	
05	WALKING WITH TRAFFIC 005	TWO RIGHT TURNING 105	LEFT-THRU 205	LANE SIDE SWIPE 305	REVERSING INTO FIXED OBJECT 405	PULLING OUT REAR END 505	PERMANENT OBSTRUCTION ON CARRIAGEWAY 605	OUT OF CONTROL ON CARRIAGEWAY 705	OUT OF CONTROL ON CARRIAGEWAY 805	
06	FACING TRAFFIC 006	RIGHT-LEFT FROM RIGHT 106	LEFT-LEFT 206	LANE CHANGE RIGHT 306	EMERGING FROM DRIVEWAY 406	OVERTAKING RIGHT TURN 506	TEMPORARY ROADWORKS 606	LEFT TURN 706		PARKED VEHICLE RAN AWAY 906
07	DRIVEWAY 007	LEFT-THRU FROM LEFT 107	U-TURN 207	LANE CHANGE LEFT 307	EMERGING FROM LOADING BAY 407		STRUCK OBJECT ON CARRIAGEWAY 607	RIGHT TURN 707		UNKNOWN 907
08	ON FOOTWAY/ MEDIAN 008	RIGHT-LEFT FROM LEFT 108		RIGHT TURN SIDE SWIPE 308	FROM FOOTWAY 408			MOUNTS TRAFFIC ISLAND 708	MOUNTS TRAFFIC ISLAND 808	
09		TWO LEFT TURNING 109		LEFT TURN SIDE SWIPE 309	U-TURN INTO FIXED OBJECT 409		ANIMAL (not hidden) 609	OFF END OF ROAD T-INTERSECTION 709		
10				PULLING OUT (LANE CHANGE) 310			LOAD OR MISSILE STRUCK VEHICLE 610			

Figure 4 - DCA Codes

## 13.4 Resources

McConnell Dowell may deploy the following physical resources to affect this strategy:

- VMS;
- Traffic Control;
- Exclusion barriers
- Signage
- Excavators and other plant and equipment
- Portable traffic signals
- Lighting towers
- Environmental spill kits
- First aid kits (including medical defibrillator)
- UHF communication radios

### 13.4.1 Incident Messaging (VMS)

McConnell Dowell may have portable VMS boards/trailers positioned as part of continuing traffic management. If so, these boards will be strategically placed to advise motorists of the changing alignments and upcoming traffic staging. These VMS boards will be used to compliment the Traffic Incident Plan. The changing of portable VMS boards to manage incidents will be done in consultation with TfNSW site representatives or the TMC. The McConnell Dowell Site Traffic Representative will change the messaging of these portable boards once approved by TfNSW or the TMC. This approval is likely to occur over the phone at the time of incidents occurring. The VMS message format shall conform to the standard messages provided in the:

- RTA VMS Guidelines (TDT 2005/02b) and,
- Traffic Control at Worksites Manual Version 6

### **13.4.2 Traffic Control**

McConnell Dowell will frequently deploy traffic control resources on the roads within the project boundary during approved ROL periods to facilitate construction works. If / when an incident occurs, these resources may be re-deployed to assist the management of diversion routes or the incident site. The Site Traffic Representative or Site Foreman will coordinate the deployment of resources to meet the needs of the TMC or TfNSW.

## **13.5 Actions**

### **13.5.1 Incident Identified**

If a McConnell Dowell employee observes an incident within the project boundary, that person will immediately notify the Site Traffic Representative. This notification will include the following details:

- Time observed;
- Place, including direction of travel and lane position;
- Type of incident;
- Estimate of severity to determine Emergency Service requirements;
- Impacts on the road upstream approaching the incident;

### **13.5.2 Notifications**

The Site Traffic Representative will:

- Immediately contact the TfNSW Site Traffic Representative and repeat the information received from the McConnell Dowell personnel on site;
- Contact available on-site traffic resources, this may include a Traffic Foreman where available to be deployed to assist manage the traffic;
- Notify the Project Director; and
- Record details on a Form – Traffic Incident Report

## **13.6 McConnell Dowell response**

The TfNSW or CJP may direct McConnell Dowell to take action to assist the management of the incident. If directed, McConnell Dowell will:

- Modify VMS messaging;
- Deploy Traffic Control resources to assist with scene containment or diversion routes.
- Utilise resources that are available to provide response to incidents with the aim to make the incident scene safe and prevent further harm to persons or property.
- Portable concrete and steel barriers are to be moved with available equipment when necessary.
- Excess portable barriers will be stored locally for replacement should any be damaged due to vehicle impact.
- On arrival of Emergency Services the scene will be handed over to the relevant authority, and McConnell Dowell will provide assistance as requested from the responsible agency.
- Apply and maintain communication protocols, particularly between construction site staff and TfNSW, CJP and/or local council representatives.

### **13.6.1 Major Incident Causing Detour**

In the event of a major incident which causes a diversion of traffic, works will be halted that would potentially cause delay to increased traffic volumes.

Where notified by the TMC or the Principal, VMS messaging will be updated on request to assist in communication or notification of any delays or impacts to motorists journeys.

Any changes implemented will remain in place until the closure is removed, and incident cleared (or at the direction of the Principal or emergency services).

### 13.6.2 Report

The Site Traffic Representative will record all the relevant details within 24 hours. The Site Traffic Representative will also record with photo and/or video the approach to and departure from the incident site where the incident falls within the temporary site traffic controls. The records of the incident and photos are to be incorporated into the Traffic Incident Report and the video file saved for internal records.

A copy of the Traffic Incident Report form and any relevant additional photographs, witness versions etc, will be forwarded to the Project Manager and the TfNSW Project traffic representative within 7 days.

Incidents will be discussed with CJP or Principal where there is contributing construction factors or elements may have been a factor. Any lessons learned or actions as a result of the discussion will be provided to the McConnell Dowell NSW Traffic Manager for review and where appropriate broadcast as a lesson learned to all site traffic representatives including those on other McConnell Dowell projects.

The inevitable nature of emergencies and their potentially significant social, economic and environmental consequences is acknowledged, and relevant state acts and legislation have been enacted to controlling these situations. The relevant acts identify agencies primarily responsible for controlling particular hazards/emergencies. Such agencies are detailed in Table 8 below.

Event	Agency
Law Enforcement / Emergencies	Police
Fire	Fire Brigades / (e.g.) Rural Fire Service
Hazardous Materials:	Fire Brigades
Flood	State Emergency Service
Storm and Tempest	State Emergency Service
Traffic	Transport Management Centre (TMC)

Table 8 – Emergency Agencies

## 14 Environmental control measures

Specific measures and requirements to address contract specifications, MCoA, EPBC-CoA and REMMs in relation to impacts from traffic are outlined in Table 14-1.

Table 14-1: Traffic management and mitigation measures

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
<b>General</b>						
T_01	<p>A Traffic Management Plan (TMP) must be prepared in accordance with Traffic Control at Work Sites - Technical Manual (Transport for NSW, 2020h).</p> <p>It will be implemented under the CEMP. The TMP will focus on maintaining general traffic flow, specifying appropriate site accesses, construction parking and construction traffic routes. The TMP will be prepared in consultation with National Parks and Wildlife Service, Randwick City Council and Sutherland Shire Council.</p>	McConnell Dowell Senior Project Engineer	Pre-construction Construction	Prior to construction and during construction	REMM T1	This TMP
T_02	Traffic Guidance Schemes (TGSs) will be developed for all work locations where there is any impact on the road network and road related areas and it is necessary to provide traffic control for either vehicles or pedestrians on the road network.	McConnell Dowell Senior Project Engineer	Construction	Prior to construction and during construction	Transport for NSW Traffic Control at Work Sites Manual	Traffic and Pedestrian Access Plan

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
	<p>The TGSs will illustrate the signs and devices that will be installed to warn traffic, pedestrians and cyclist around or past, or if necessary, through the work site and will take into consideration any cumulative traffic impacts of existing TGSs developed for the project.</p> <p>All TGS's will be submitted to the Principal. Within 24 hours of TGS being implemented, an inspection of the traffic control measures will be undertaken by a qualified Road Safety Auditor. Ineffective measures will be redesigned to provide optimum performance. A report will be submitted to the Principal within 7 days of the implementation.</p>					
T_03	<p>Any works requiring access to the road network will be undertaken in accordance with all Transport for NSW requirements. Road Occupancy Licences (ROLs) will be approved by Transport for NSW to specify TGS requirements.</p>	<p>McConnell Dowell Senior Project Engineer</p>	<p>Construction</p>	<p>Prior to construction and during construction</p>	<p>Best Practice</p>	<p>Traffic and Pedestrian Access Plan</p>

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
	This includes approval for times and days when each TGS can be operated. Approved ROLs will accompany the TGS for which it applies to during the operation of each TGS.					
T_04	The Traffic and Pedestrian Access Plan must show the travel paths for vehicles to enter, leave or cross through the traffic stream.	McConnell Dowell Senior Project Engineer	Construction	Prior to construction and during construction	MCoA E78	Traffic and Pedestrian Access Plan
T_05	The Traffic and Pedestrian Access Plan must show the allocated travel paths for workers within the Site and pedestrian around and through the Site, including unhindered access to bus stops.	McConnell Dowell Senior Project Engineer	Construction	Prior to construction and during construction	Best Practice	Traffic and Pedestrian Access Plan
T_06	Before any local road is used by a heavy vehicle for the purposes of the project, a Road Dilapidation Report must be prepared for the road.  A copy of the Road Dilapidation Report must be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used by heavy vehicles.	McConnell Dowell Senior Project Engineer	Construction	Prior to construction and during construction	MCoA E75	Traffic and Pedestrian Access Plan



ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
T_07	The properties physically affected by the construction works will be reinstated to an equivalent standard. Unless otherwise agreed by the landowner or occupier.	McConnell Dowell Senior Project Engineer	Construction	During construction	MCoA E72	Traffic and Pedestrian Access Plan
T_08	The Damages to local roads, if any, must be repaired to a pre-works condition as in the Dilapidation report	McConnell Dowell Senior Project Engineer	Construction	During construction	MCoA E76	Traffic and Pedestrian Access Plan
<b>Parking</b>						
T_09	<p>Construction and construction worker vehicles (including light and heavy vehicles) associated with the project must be accommodated within the construction boundaries on both the La Perouse and Kurnell sites</p> <p>On-site parking must be provided within the construction boundary to:</p> <ul style="list-style-type: none"> <li>a) minimise parking on public roads;</li> <li>b) minimise idling and queueing on local roads;</li> <li>c) not carry out marshalling of construction vehicles near sensitive land use(s);</li> </ul>	McConnell Dowell Supervisor	Construction	During construction	REMM T3 MCoA E78	<p>Site inspections reports</p> <p>Traffic and Pedestrian Access Plan</p>

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
	d) not block or disrupt access across pedestrian or shared user paths at any time;					
T_010	Delivery vehicles must not park on public roads, instead they must park within the construction site boundary. (Refer Fig 14-1 and Fig 14-2)	McConnell Dowell Supervisor	Construction	During construction	REMM T1 MCoA E78	Site inspections reports  Traffic and Pedestrian Access Plan
<b>Pedestrians and cyclists</b>						
T_011	Interaction between cyclists and construction related vehicles must be managed and proposed alternative routes would be identified within the Traffic and Pedestrian Access Plan.	McConnell Dowell Senior Project Engineer	Construction	During construction	REMM T4 MCoA E77	Traffic and Pedestrian Access Plan
T_012	Where disruption or closure of pedestrian routes is required during construction, alternate pedestrian routes which comply with relevant standards (unless otherwise endorsed by an independent, appropriately qualified and experienced person) must be provided in consultation with Randwick City Council,	McConnell Dowell Senior Project Engineer	Construction	During construction	REMM T5 MCoA E77	Traffic and Pedestrian Access Plan

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
	Sutherland Shire Council and National Parks and Wildlife Services. Alternative routes will be provided prior to the restriction or removal of existing access routes.					
T_013	<p>All reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties.</p> <p>Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses and implemented prior to the disruption.</p> <p>Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.</p>	McConnell Dowell Senior Project Engineer	Construction	During construction	MCoA E79	Traffic and Pedestrian Access Plan
T_014	Pedestrian movements where they interact with the construction activities or boundaries must be	McConnell Dowell Senior Project Engineer	Construction	During construction	Transport for NSW Traffic Control at	Traffic and Pedestrian Access Plan

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
	managed and controlled by an authorised and qualified traffic controller.				Work Sites Manual	
T_015	Pedestrian warning signs and construction safety signs/devices must be used near entrances and exists to the construction site. These are to be provided in accordance with WorkCover and any applicable legislative requirements.	McConnell Dowell Senior Project Engineer]	Construction	During construction	Transport for NSW Traffic Control at Work Sites Manual	Site inspection reports Traffic and Pedestrian Access Plan
<b>Access</b>						
T_016	Emergency vehicle access must be maintained during construction. Any site-specific requirements will be determined in consultation with the relevant emergency services agency.	McConnell Dowell Supervisor	Construction	During construction	REMM T6	Site inspection reports
T_017	The construction works must not restrict the access of private properties Alternative access provided in consultation with landowner.	McConnell Dowell Supervisor	Construction	During construction	REMM T1 MCoA E71, MCoA E79	Site inspection reports Traffic and Pedestrian Access Plan
T_018	Provide delivery instructions and access routes to suppliers along with purchase orders or provided	McConnell Dowell Senior Project Engineer	Construction	During construction	REMM T1	Traffic and Pedestrian Access Plan

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
	separately prior to dispatch of materials for delivery.					
T_019	<p>The utility owners will not be restricted access to relevant utilities due to Construction works where practically possible.</p> <p>Alternative access provided in consultation with utility owners.</p>	McConnell Dowell Senior Project Engineer	Construction	During construction	MCoA E71	Traffic and Pedestrian Access Plan
T_020	<p>Local roads proposed to be used by heavy vehicles to directly access the construction boundary and ancillary facilities that are not previously identified in Appendix K of the EIS must be approved by the Planning Secretary and must include a Traffic and Pedestrian Impact Assessment and be prepared in consultation with the relevant local council(s).</p> <p>The assessment must be undertaken by an appropriately qualified and experienced person and must include a swept path analysis if required by the Department. The assessment must include the following:</p> <p>a) a swept path analysis;</p>	McConnell Dowell Senior Project Engineer	Construction	If required	MCoA E73 MCoA E74	Traffic and Pedestrian Impact Assessment

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
	<p>b) demonstration that the use of local roads by heavy vehicles for the SSI will not compromise the safety of pedestrians and cyclists or the safety of two-way traffic flow on two-way roadways;</p> <p>c) provide details as to the date of completion of the road dilapidation surveys for the subject local roads; and</p> <p>d) describe the measures that will be implemented to avoid where practicable the use of local roads past schools, aged care facilities and child care facilities during their peak operation times.</p> <p>The outcomes and recommendations of the assessment must be incorporated into the Traffic, Transport and Access Management Plan</p>					
<b>Safety</b>						

ID	Measure / Requirement	Responsibility	When to implement	Timing/frequency	Reference	Evidence
T_021	Appropriate vehicle speed limits must be established and enforced. These would be reviewed and adjusted depending on weather conditions or safety requirements.	McConnell Dowell Senior Project Engineer	Construction	During construction	Transport for NSW Traffic Control at Work Sites Manual	Traffic and Pedestrian Access Plan
T_022	The safety and efficiency of the transport system (including parking) in the vicinity of the project are managed to minimise impacts.  The safety of transport system customers is maintained. Impacts on network capacity and the level of service are effectively managed.	McConnell Dowell Senior Project Engineer	Construction	During Construction	CoA – Table 5 Appendix X EIS	Site inspections reports  Traffic and Pedestrian Access Plan
<b>Notification</b>						
T_023	Neighbouring properties must be notified of construction works and timing for large deliveries or any disruption to the road network.	McConnell Dowell Community Stakeholder Manager	Construction	During construction	REMM T1	Communication Liaison Implementation Plan (CLIP)
T_024	The TMP must be prepared in consultation with National Parks and Wildlife Service, Randwick City Council and Sutherland Shire Council.	McConnell Dowell Senior Project Engineer	Construction	During construction	REMM T1	Communication Liaison Implementation Plan (CLIP)

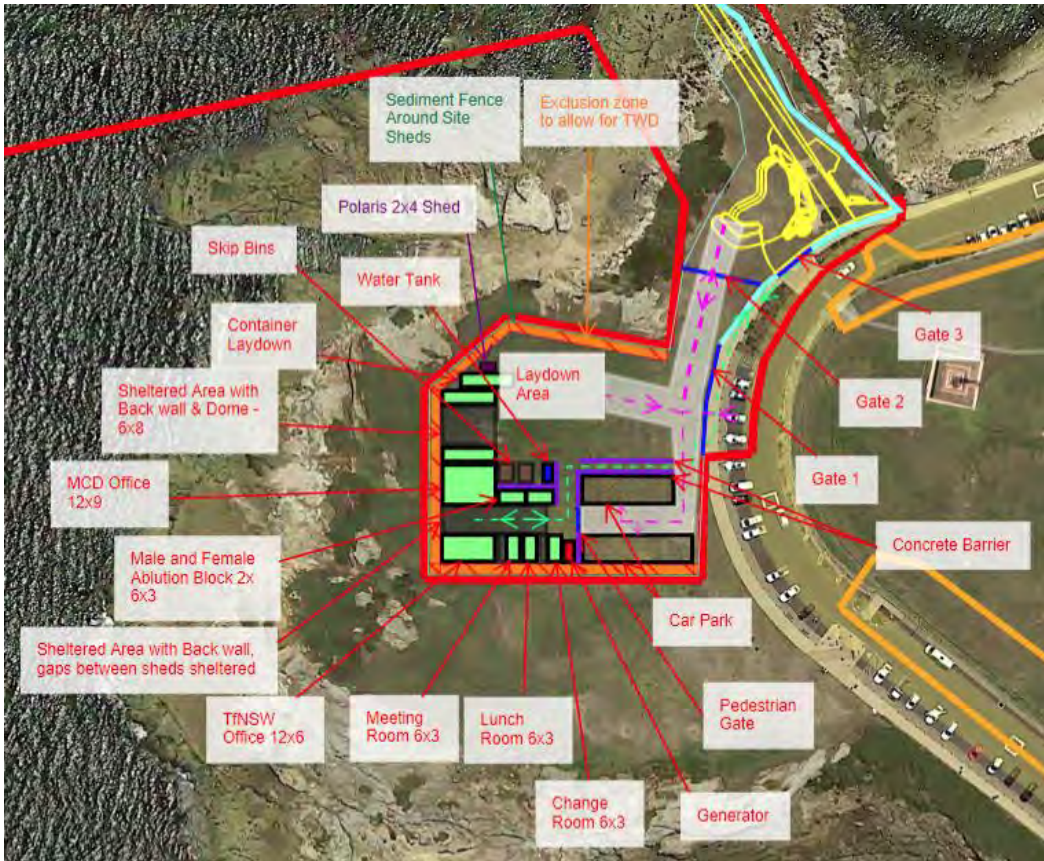


Fig 14 -1 Temporary Car Parking Arrangement at La Perouse



Fig 14 -2 Temporary Car Parking Arrangement at Kurnell



## 15 Compliance management

### 15.1 Training

All employees, contractors and utility staff working on site will undergo site induction training relating to traffic management issues. The induction training will address elements related to traffic management including:

- Existence and requirements of this TMP
- Relevant legislation
- Roles and responsibilities for traffic management
- Normal construction hours
- The process for seeking approval for out of hours works, including consultation
- Location of noise sensitive areas
- Complaints reporting
- Specific responsibilities to minimise impacts on the community and built environment from traffic associated with the works.
- Nominate the parking requirements within compounds at the respective sites.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in traffic management.

Further details regarding staff induction and training are outlined in Section 6.3 of the CEMP.

### 15.2 Complaints

Complaints will be recorded and managed as detailed in Section 6.4.5 of the CEMP.

### 15.3 Inspections

Requirements and responsibilities in relation to inspections are documented in Section 4.5 of the CEMP.

Compliance with parking requirements will be conducted during weekly inspections, results will be processed and passed onto the workforce throughout morning Pre-Start meetings. Where vehicles are in breach of this requirement, corrective actions will be carried out to mitigate any future events. As a minimum the audit will include:

- Identify any construction vehicles parking outside of the construction boundary
- Compliance with TGS plans and TMP
- Pedestrian and cycle routes are as per the TMP

### 15.4 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of traffic management measures, compliance with this TMP, MCoA, EPBC-CoA and other relevant approvals, licenses and guidelines.

Audit requirements are detailed in Section 8.3 of the CEMP.

## 15.5 Reporting

Reporting requirements and responsibilities are documented Section 8.2 of the CEMP.

## 16 Review and improvement

### 16.1 Continuous improvement

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of traffic management
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

All complaints are to be managed in accordance with the requirements of the Project's MCoA and Community Communication Strategy, by the Community Relations Manager and Environment & Sustainability Lead

### 16.2 TMP update and amendment

The processes described in Section 3.1.1 of the CEMP may result in the need to update or revise this TMP. This will occur as needed.

McConnell Dowell will review and update the TMP where required prior to significant changes in construction methodology that alter the risk rating identified in the Aspect and Impacts Register or after significant environmental incidents.

If the works are anticipated to extend beyond 13 months, the TMP would be reviewed and updated where required within 12 months of approval.

Only the Environment Manager, or delegate, has the authority to change any of the environmental management documentation.

Where significant changes to the TMP have occurred, a copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 6.6 of the CEMP.

## 17 Drivers Code of Conduct

### 17.1 Purpose

This Drivers Code of Conduct (DCC) provides a concise outline of McConnell Dowell's requirements relating to driver operation to/from and when on site. It is provided in support of and shall be read in conjunction with the McConnell Dowell Site Induction. Additionally, this procedure outlines the rules which apply to the work sites in support of the Construction Traffic Management Plan.

### 17.2 Objective

The objectives of the DCC are to:

- Minimise impacts on the community;
- Encourage an environment for safe operations; and
- Maximise public safety by adhering to the Australian road rules.

### 17.3 Responsibilities

The roles and responsibilities relevant to the DCC are defined in Table 1 below.

Table 2 - DCC Roles & Responsibilities

Role	Responsibility
McConnell Dowell employees, sub-contractors and site personnel	All McConnell Dowell employees, sub-contractors and other site personnel are responsible to comply with this management plan.  McConnell Dowell employees, contractors and other site personnel must take appropriate action detailed in this management plan in accordance with McConnell Dowell's legal and environmental obligations.
Road Transport Providers (Truck companies)	Are responsible for ensuring that their drivers are aware of and compliant to the expectations outlined within the DCC travelling to, from and whilst on site.

### 17.4 Legislative Requirements

Drivers shall comply with the Work Health and Safety Act NSW 2011, NSW Road Rules and the associated Regulation, the Heavy Vehicle National Law (NSW) No 42a of 2013 which includes:

- Drivers & operators shall be appropriately and currently licensed;
- All drivers are to ensure their vehicles / equipment are fit for use prior to travelling to the site;
- All drivers, operators & construction workers are to abide by their approved safe work method statements which must outline the procedures to travel to and from site as well as loading and unloading;
- Construction workers/drivers are made aware of the access arrangements, and they take special care to ensure that any private vehicles are given due care and attention. This also relates to construction vehicles passing each property access (such as

earthworks haulage vehicles, material deliveries, grading operations, compaction equipment, etc.).

- Compliance with the McConnel Dowell Construction Traffic management plan;
- All drivers are to plan their trips to and from site to avoid unnecessary impacts to the road network;
- Where fitted, seat belts must be worn at all times whilst operating equipment & vehicles;
- Parking to occur only in designated parking areas;
- Drivers are to obey the latest vehicle movement plan which stipulate permitted turn movements within the site;
- At all times drivers shall maintain a safe speed whilst taking into consideration the posted speed limits, road and weather conditions;
- Drivers shall comply with signposted load limits;
- Drivers are to ensure that loads are adequately secured prior to travelling to & from the site;
- Drivers shall be aware of any pedestrian facilities (i.e. crossings and designated pedestrian paths)
- Drivers are to be aware of the authorised delivery times;
- Drivers shall ensure loads are covered when transporting materials;
- Drivers shall arrange for the clean-up of any spillage emanating from the vehicle;
- Drivers shall ensure there are no unauthorised discharges into adjacent drains or waterways;
- Drivers are to ensure that the vehicle tyres are clean as to prevent tracking of material out into the public road; and
- The dumping of rubbish or waste of any kind is prohibited;

## 17.5 Over Dimensional Loads

At all times, McConnel Dowell and its sub-contractors will comply with the requirements of the National Heavy Vehicle Regulator (NHVR). Safe Work Method Statements (SWMS) will be prepared 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.

All loads will be moved within the time conditions stipulated with the necessary pilot and escort vehicles and documentation. McConnel Dowell engineering staff and site supervisors responsible for the ordering of these deliveries will check that haulage contractors are operating in compliance with these conditions.

McConnel Dowell is aware that neighbouring projects may be present on the road network. McConnel Dowell will coordinate any project required OSOM movements with adjacent projects to ensure the proposed route is clear still suitable for use.

## 17.6 Mitigation Measures

McConnel Dowell are aware of the impact that construction has on the local community. As a consequence, mitigation measures may be implemented to minimise the traffic impact. These are presented in the sections below.

### 17.6.1 Access Design

McConnel Dowell will design all access and egress points to minimise conflicts with the vehicle movements on the road network and in accordance with the relevant Traffic & Safety requirements.

### 17.6.2 Community Consultation

As outlined in the CTMP, McConnel Dowell will ensure early and effective consultation occurs with affected residents, sensitive receivers and stakeholders to minimise disruption by construction traffic.

### 17.6.3 Dust Generation

All adjoining roads are sealed roads. It is not anticipated that dust impacts will occur on the sealed roads as a result of the Works. However, McConnel Dowell will monitor the generation of dust associated with the use of the nominated travel routes.

Mitigation measures to minimise dust impacts include:

- where safe to do so, exposed and disturbed surfaces, including unsealed roads, will be watered using dust suppression techniques such as water sprays (from water carts) or dust suppression surfactants, especially during inclement weather conditions where required and appropriate;
- vehicle movements to occur on dedicated routes proposed within the VMP;
- where safe to do so, access points proposed within the VMP & CTMP, will be cleaned if there is a build-up of dust-generating sediment, where required; and
- regularly conducting visual inspections of dust emissions and applying additional controls as required.

### 17.6.4 Noise Impacts

Due to the relative close proximity to residents, drivers are requested to minimise the noise created as much as practically possible.

McConnel Dowell will monitor the following to minimise noise related traffic impacts:

- All heavy vehicle movements or deliveries occur within the approved working hours;
- Use of compression brakes in the vicinity of the site is minimised;
- Idling is minimised where possible; and
- Following at safe distances so as to prevent sudden braking causing excessive noise;

## 17.7 Incident & Hazard Reporting

In the event of an incident or breakdown on site, drivers are to contact the Construction Supervisor as soon as it is safe to do so. The process to respond to the incident is outlined within the Traffic Incident Management Plan contained in the Construction Traffic Management Plan.

Road conditions and traffic hazards can impact on road safety. Items such as potholes in the vicinity of the site shall be reported by drivers to Construction Supervisors. These are to be addressed as required.

## 17.8 Management of Non-Compliance

All personnel & sub-contractors are instructed to provide the necessary supervision and processes to ensure compliance. Where non-compliance with the DCC is observed McConnell Dowell representatives will:

### 17.8.1 1<sup>st</sup> & 2<sup>nd</sup> occasions of non-compliance:

Where possible approach the driver involved, draw attention to the non-compliance and advise of the behaviour required. Record the registration number of the truck and the fleet number of the truck and advise that the incident will be recorded as a warning under the DCC and that three warnings will result in the driver being precluded from entering the site. If unable to approach the driver, communication should be made with both the applicable company's supervisor on site and/or McConnell Dowell management to progress this issue in a timely manner. An McConnell Dowell representative will record and track this issue. The relevant person will be notified of the incident in writing and requested to do the following:

1. Formally advise the person of the warning;
2. Counsel the person involved and advise of the consequences of further non-compliances;
3. Reinstruct the person of McConnell Dowell's requirements;
4. Notify McConnell Dowell of the driver's name for McConnell Dowell records.

### 17.8.2 3<sup>rd</sup> occasion of non-compliance:

Repeat the steps above. Inform the driver and company that the driver has received two previous warnings. The sub-contractor shall carry out steps 1 to 4 (above) and advise the driver he is no longer permitted on site.

## 18 Key Contacts

Contact	Position	Mobile No.
Adam Adamcewskii	Project Manager	██████████
James Fruh	Construction Manager	██████████
Colin Ford	Superintendent	██████████
Joe Petaccia	Super Intendent	██████████
TBA	Traffic Manager	TBA
TBA	Interface Manager	TBA

# Attachment A – Long-Term Traffic Guidance Schemes



## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	<input type="checkbox"/> Does the TGS involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? <input type="checkbox"/> <input type="checkbox"/> Is access to residential properties and businesses maintained? <input type="checkbox"/> <input type="checkbox"/> Are detour signs located at decision points? <input type="checkbox"/> <input type="checkbox"/> Can roads and intersections used as detour routes accommodate the volumes? <input type="checkbox"/> <input type="checkbox"/> Is the same level of safety maintained for turn movements? <input type="checkbox"/> <input type="checkbox"/>				
4	<input type="checkbox"/> Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? <input type="checkbox"/> <input type="checkbox"/> Is a PTCO used in place of a Traffic Controller where speed >45kmh? <input type="checkbox"/> <input type="checkbox"/> Is the speed of the road ≤60km/h where TC or PTCO are in use? <input type="checkbox"/> <input type="checkbox"/> Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? <input type="checkbox"/> <input type="checkbox"/> Is Prepare to stop and Traffic control or PTCO symbolic sign installed? <input type="checkbox"/> <input type="checkbox"/> Do TC and PTCO positions have adequate lighting during low light conditions? <input type="checkbox"/> <input type="checkbox"/> Does sight distance of at least 1.5D exist on approach to TC or PTCO? <input type="checkbox"/> <input type="checkbox"/>				LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? <input checked="" type="checkbox"/> <input type="checkbox"/> Are distances compliant? <input checked="" type="checkbox"/> <input type="checkbox"/> Are worker symbolic signs shown in advance of workers that are visible to traffic? <input checked="" type="checkbox"/> <input type="checkbox"/> Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? <input checked="" type="checkbox"/> <input type="checkbox"/> Are taper lengths compliant and not placed in areas with poor sight distance? <input checked="" type="checkbox"/> <input type="checkbox"/> Are lane status signs to be placed in advance of a lane merge? <input checked="" type="checkbox"/> <input type="checkbox"/> Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? <input checked="" type="checkbox"/> <input type="checkbox"/> Does the TGS clearly define transition zones between tapers on Multi-lane roads? <input checked="" type="checkbox"/> <input type="checkbox"/> Are they compliant? <input checked="" type="checkbox"/> <input type="checkbox"/> Does the TGS clearly define buffer areas and are they at least 30m in length? <input type="checkbox"/> <input checked="" type="checkbox"/> Does the TGS clearly define site access and egress for work vehicles? <input checked="" type="checkbox"/> <input type="checkbox"/> Are any impacts on traffic managed? <input checked="" type="checkbox"/> <input type="checkbox"/> Does the TGS clearly define pedestrian routes, and are they suitable? <input checked="" type="checkbox"/> <input type="checkbox"/> Does the TGS consider cyclists and can they traverse site safely? <input checked="" type="checkbox"/> <input type="checkbox"/>			L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED – DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Alex Gosper Sign: Date: ..... Card No: TCT0002693 (PWZ).....

Name: ..... Sign: ..... Date: .../.../..... Card No: .....

DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A	 	CLIENT McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION KURNELL WHARF MONUMENT TRACK LONG TERM TGS AND PEDESTRIAN ACCESS RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0012-01 SHEET 1 OF 6 REVISION 0
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## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	<input type="checkbox"/>	<input type="checkbox"/>	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45km/h? Is the speed of the road <=60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT



\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED - DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A			McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  ANZAC PARADE WATERMAIN INSTALLATION LONG TERM TGS RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0009-00 SHEET 1 OF 3 REVISION 0
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Plot Date: 8 December 2022 - 3:20 PM      Cad File No: C:\Users\alex.1\OneDrive - civlink-consulting.com.au\Desktop\MCCD-KAM-TGS\MCCD-KAM-TGS-0009-00.dwg

# SHEET 3



ROADWORK  
AHEAD

HEAVY  
VEHICLES  
NO RIGHT  
TURN

VMS  
1

SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

REV	BY	DATE	DESCRIPTION	APPD.
0	AG	8.11.22	ORIGINAL ISSUE	LP

DRAWN BY:	AG	DESIGNER
DRW CHECK:	LP	
APPROVED:	LP	
IND REVIEW:	N/A	

**McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION**  
  
 ANZAC PARADE WATERMAIN INSTALLATION  
 LONG TERM TGS  
 LOCALITY PLAN AND VMS MESSAGING

DRAWING No:	MCCD-KAM-TGS-0009-00		
SHEET	2	OF	3
REVISION	0		



LEGEND	
WORK AREA	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	
KLEMMFIX BARRIER	

0	AG	8.11.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.

DRAWN BY:	AG	DESIGNER
DRW CHECK:	LP	
APPROVED:	LP	
IND REVIEW:	N/A	

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE WATERMAIN INSTALLATION  
LONG TERM TGS  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0009-00
SHEET	3 OF 3
REVISION	0

# TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

# RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45kmh? Is the speed of the road ≤60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

## RISK EVALUATION MATRIX

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

## RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

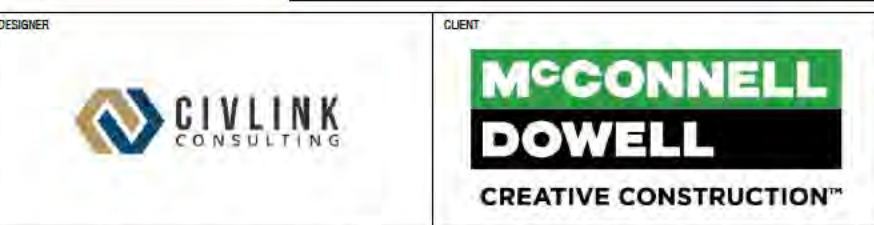
Item	Control Measures	Residual Risk

## SIGNED – DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY:	AG	DESIGNER
DRW CHECK:	LP	
APPROVED:	LP	
IND REVIEW:	N/A	



CLIENT  
**MCCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION**

**ANZAC PARADE LONG TERM LANE CLOSURE WITH LIGHT VEHICLE SWEEP PATH ANALYSIS RISK ASSESSMENT**

DRAWING No: MCCD-KAM-TGS-0007-00	
SHEET	1 OF 3
REVISION	0



# SHEET 3

SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

0	AG	3.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

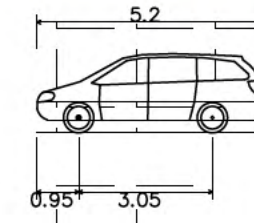
DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE LONG TERM LANE CLOSURE WITH LIGHT VEHICLE SWEEP PATH ANALYSIS LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0007-00		
SHEET	2	OF	3
REVISION	0		



Passenger vehicle (5.2 m)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.300m

LIGHT VEHICLE CAR PARK  
EGRESS SWEEP PATH

LIGHT VEHICLE CAR PARK  
ACCESS SWEEP PATH

30m 30m

FOOTPATH CLOSED  
USE OTHER FOOTPATH  
PEDESTRIANS



T1-100-1  
T1-0  
T1-100-2

ROAD WORK AHEAD  
ROAD WORK

PEDESTRIANS

### LEGEND

WORK AREA	
PEDESTRIAN DETOUR ROUTE	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A



McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE LONG TERM LANE CLOSURE  
WITH LIGHT VEHICLE SWEEP PATH ANALYSIS  
TRAFFIC GUIDANCE SCHEME

DRAWING No: MCCD-KAM-TGS-0007-00

SHEET 3 OF 3

REVISION 0

## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45kmh? Is the speed of the road <=60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT



\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED - DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A			McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  ANZAC PARADE LONG TERM LANE CLOSURE RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0006-00 SHEET 1 OF 3 REVISION 0
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Plot Date: 3 December 2022 - 10:32 PM | Cad File No: C:\Users\Alex\OneDrive - civlink-consulting.com.au\Desktop\MCCD-KAM-TGS\MCCD-KAM-TGS-0006-00.dwg





SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

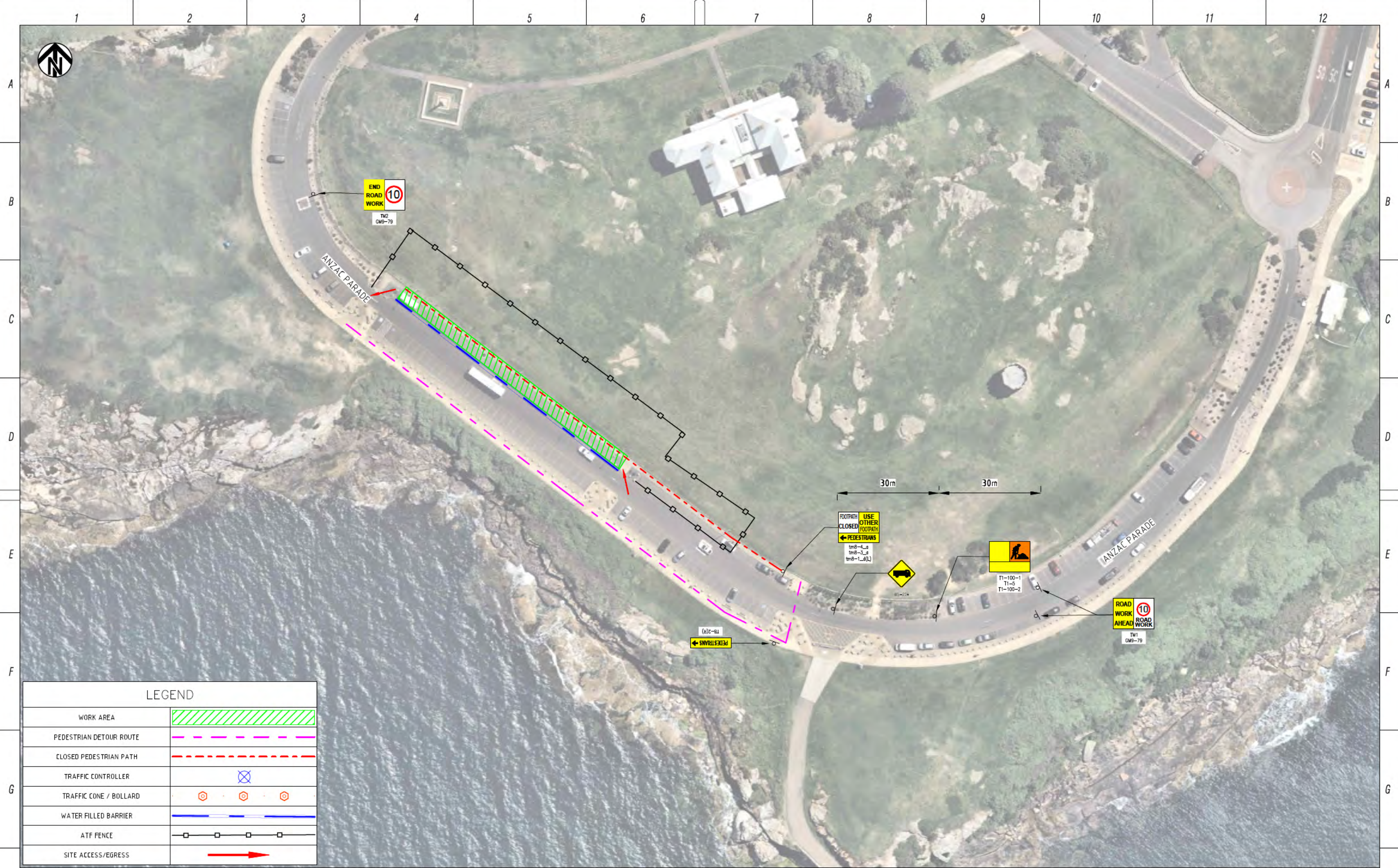
0	AG	3.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY: AG  
 DRW CHECK: LP  
 APPROVED: LP  
 IND REVIEW: N/A



CLIENT  
 McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  
 ANZAC PARADE  
 LONG TERM LANE CLOSURE  
 LOCALITY PLAN

DRAWING No: MCCD-KAM-TGS-0006-00  
 SHEET 2 OF 3  
 REVISION 0



**LEGEND**

WORK AREA	
PEDESTRIAN DETOUR ROUTE	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A



McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

**ANZAC PARADE  
LONG TERM LANE CLOSURE  
TRAFFIC GUIDANCE SCHEME**

DRAWING No:	MCCD-KAM-TGS-0006-00
SHEET	3 OF 3
REVISION	0

## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45kmh? Is the speed of the road <=60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED – DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A			CLIENT McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION ANZAC PARADE GATE ACCESS CONSTRUCTION LONG TERM SIGNS AND TGS RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0002-01 SHEET 1 OF 3 REVISION 0
COORDINATE SYSTEM: _____ HEIGHT DATUM: _____ SCALE: _____	Plot Date: 8 December 2022 - 1:10 PM Cad File No: C:\Users\Alex\OneDrive - civlink-consulting.com.au\Desktop\MCCD-KAM-TGS\MCCD-KAM-TGS-0002-01.dwg			



SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

01	AG	8.11.22	UPDATE FENCING AND ADD INTERMITTENT GATE ACCESS	LP
00	AG	25.11.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE GATE ACCESS CONSTRUCTION  
LONG TERM SIGNS AND TGS  
LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0002-01		
SHEET	2	OF	3
REVISION	0		



LEGEND

WORK AREA	
PEDESTRIAN DETOUR ROUTE	
ATF FENCE	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
TEMPORARY SIGN POSITION	
SITE ACCESS / EGRESS	

REV	BY	DATE	DESCRIPTION	APPD.
01	AG	8.11.22	UPDATE FENCING AND ADD INTERMITTENT GATE ACCESS	LP
0	AG	25.11.22	ORIGINAL ISSUE	LP

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE GATE ACCESS CONSTRUCTION  
LONG TERM SIGNS AND TGS  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0002-01
SHEET	3 OF 3
REVISION	0



**SHEET 5**

**SHEET 6**

**SHEET 4**

**SHEET 3**

SITE SPECIFIC NOTES	
PRIMARY ROAD	CAPE SOLANDER DR
SECONDARY ROAD	CAPTAIN COOK DR
PERMITTED TIMES FOR USE	
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	50 km/h
DIMENSION D ADOPTED	50m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

01	AG	28.04.23	UPDATE FENCING AREA AND ADD PEDESTRIAN PATHWAY	LP
0	AG	13.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

KURNELL WHARF MONUMENT TRACK  
LONG TERM TGS AND PEDESTRIAN ACCESS  
LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0012-01
SHEET	2 OF 6
REVISION	0



LEGEND	
WORK AREA	
OPEN PEDESTRIAN PATH	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	
PEDESTRIAN FOOTPATH	

REV	BY	DATE	DESCRIPTION	APPD.
01	AG	28.04.23	UPDATE FENCING AREA AND ADD PEDESTRIAN PATHWAY	LP
0	AG	13.12.22	ORIGINAL ISSUE	LP

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

KURNELL WHARF MONUMENT TRACK  
LONG TERM TGS AND PEDESTRIAN ACCESS  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0012-01
SHEET	3 OF 6
REVISION	0



LEGEND	
WORK AREA	
OPEN PEDESTRIAN PATH	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

DRAWN BY: AG				McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION		DRAWING No: MCCD-KAM-TGS-0012-01	
DRW CHECK: LP				KURNELL WHARF MONUMENT TRACK LONG TERM TGS AND PEDESTRIAN ACCESS TRAFFIC GUIDANCE SCHEME		SHEET 4 OF 6	
APPROVED: LP						REVISION 0	
IND REVIEW: N/A							
COORDINATE SYSTEM:		HEIGHT DATUM:		SCALE:			





JOINS MCCD-KAM-TGS-0012 SHEET 6

JOINS MCCD-KAM-TGS-0012 SHEET 4

LEGEND

WORK AREA	
OPEN PEDESTRIAN PATH	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

DESIGNER	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

COORDINATE SYSTEM:	HEIGHT DATUM:	SCALE:
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DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

KURNELL WHARF MONUMENT TRACK  
LONG TERM TGS AND PEDESTRIAN ACCESS  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0012-01
SHEET	5 OF 6
REVISION	0



JOINS MCCD-KAM-TGS-0012 SHEET 5



LEGEND	
WORK AREA	
OPEN PEDESTRIAN PATH	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

01	AG	28.04.23	UPDATE FENCING AREA AND ADD PEDESTRIAN PATHWAY	LP
0	AG	13.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.

DRAWN BY: AG  
 DRW CHECK: LP  
 APPROVED: LP  
 IND REVIEW: N/A

DESIGNER

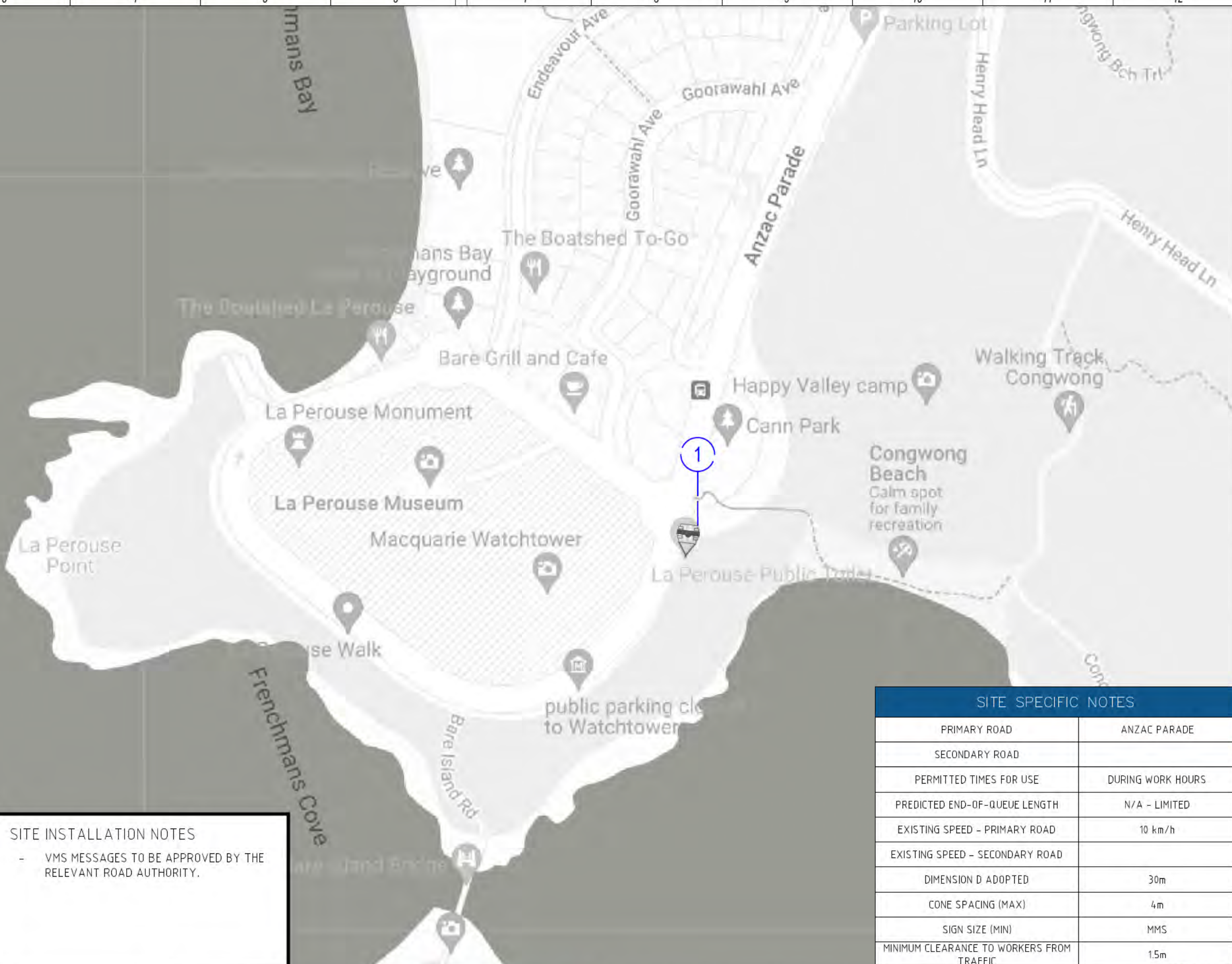
CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

KURNELL WHARF MONUMENT TRACK  
 LONG TERM TGS AND PEDESTRIAN ACCESS  
 TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0012-01
SHEET	6 OF 6
REVISION	0

# Attachment B – Short-Term Traffic Guidance Schemes



**SITE INSTALLATION NOTES**

- VMS MESSAGES TO BE APPROVED BY THE RELEVANT ROAD AUTHORITY.

VMS 1

SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

REV	BY	DATE	DESCRIPTION	APPD.
0	AG	26.02.23	ORIGINAL ISSUE	LP

DRAWN BY: AG  
 DRW CHECK: LP  
 APPROVED: LP  
 IND REVIEW: N/A



CLIENT  
 McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  
 ANZAC PARADE  
 SHORT TERM TGS  
 LOCALITY PLAN AND VMS MESSAGING

DRAWING No: MCCD-KAM-TGS-0016-00  
 SHEET 1 OF 1  
 REVISION 0

## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? <input type="checkbox"/> Is access to residential properties and businesses maintained? <input type="checkbox"/> Are detour signs located at decision points? <input type="checkbox"/> Can roads and intersections used as detour routes accommodate the volumes? <input type="checkbox"/> Is the same level of safety maintained for turn movements? <input type="checkbox"/>				
4	Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? <input type="checkbox"/> Is a PTCO used in place of a Traffic Controller where speed >45kmh? <input type="checkbox"/> Is the speed of the road <=60km/h where TC or PTCO are in use? <input type="checkbox"/> Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? <input type="checkbox"/> Is Prepare to stop and Traffic control or PTCO symbolic sign installed? <input type="checkbox"/> Do TC and PTCO positions have adequate lighting during low light conditions? <input type="checkbox"/> Does sight distance of at least 1.5D exist on approach to TC or PTCO? <input type="checkbox"/>				LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? <input checked="" type="checkbox"/> Are distances compliant? <input checked="" type="checkbox"/> Are worker symbolic signs shown in advance of workers that are visible to traffic? <input checked="" type="checkbox"/> Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? <input checked="" type="checkbox"/> Are taper lengths compliant and not placed in areas with poor sight distance? <input checked="" type="checkbox"/> Are lane status signs to be placed in advance of a lane merge? <input checked="" type="checkbox"/> Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? <input checked="" type="checkbox"/> Does the TGS clearly define transition zones between tapers on Multi-lane roads? <input checked="" type="checkbox"/> Are they compliant? <input checked="" type="checkbox"/> Does the TGS clearly define buffer areas and are they at least 30m in length? <input type="checkbox"/> Does the TGS clearly define site access and egress for work vehicles? <input checked="" type="checkbox"/> Are any impacts on traffic managed? <input checked="" type="checkbox"/> Does the TGS clearly define pedestrian routes, and are they suitable? <input checked="" type="checkbox"/> Does the TGS consider cyclists and can they traverse site safely? <input checked="" type="checkbox"/>			L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED - DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A			McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  ANZAC PARADE - NIGHT WORKS LOOP ROAD CLOSURE RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0010-00 SHEET 1 OF 3 REVISION 0
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# SHEET 3

SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	ENDEAVOUR AVENUE
PERMITTED TIMES FOR USE	NIGHT HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	50 km/h
EXISTING SPEED - SECONDARY ROAD	50 km/h
DIMENSION D ADOPTED	50m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

0	AG	4.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE - NIGHT WORKS  
LOOP ROAD CLOSURE  
LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0010-00		
SHEET	2	OF	3
REVISION	0		



**LEGEND**

WORK AREA	
PEDESTRIAN DETOUR ROUTE	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

0	AG	4.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE - NIGHT WORKS  
LOOP ROAD CLOSURE  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0010-00
SHEET	3 OF 3
REVISION	0

## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	<input type="checkbox"/>	<input type="checkbox"/>	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45km/h? Is the speed of the road ≤60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED – DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A			McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION ANZAC PARADE WATERMAIN INSTALLATION SHORT TERM TGS RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0008-00 SHEET 1 OF 3 REVISION 0
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# SHEET 3



ROADWORK  
AHEAD

HEAVY  
VEHICLES  
NO RIGHT  
TURN

VMS  
1

SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

0	AG	8.11.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE WATERMAIN INSTALLATION  
SHORT TERM TGS  
LOCALITY PLAN AND VMS MESSAGING

DRAWING No:	MCCD-KAM-TGS-0008-00		
SHEET	2	OF	3
REVISION	0		



LEGEND	
WORK AREA	
PEDESTRIAN DETOUR ROUTE	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

0	AG	8.11.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE WATERMAIN INSTALLATION  
SHORT TERM TGS  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0008-00
SHEET	3 OF 3
REVISION	0

## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	<input checked="" type="checkbox"/> Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45km/h? Is the speed of the road <=60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED – DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY: AG	DESIGNER	CLIENT	McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION	DRAWING No: MCCD-KAM-TGS-0005-00
DRW CHECK: LP	 	ANZAC PARADE SHORT TERM LANE CLOSURE & STOP/SLOW OPERATION RISK ASSESSMENT		SHEET 1 OF 3
APPROVED: LP		REVISION 0		
IND REVIEW: N/A				

Plot Date: 3 December 2022 - 3:21 PM | Cad File No: C:\Users\Alex\1\OneDrive - civlink-consulting.com.au\Desktop\MCCD-KAM-TGS\MCCD-KAM-TGS-0005-00.dwg



SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

0	AG	3.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY: AG  
 DRW CHECK: LP  
 APPROVED: LP  
 IND REVIEW: N/A



CLIENT  
 McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  
 ANZAC PARADE SHORT TERM LANE CLOSURE  
 & STOP/SLOW OPERATION  
 LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0005-00		
SHEET	2	OF	3
REVISION	0		



LEGEND

WORK AREA	
PEDESTRIAN DETOUR ROUTE	
CLOSED PEDESTRIAN PATH	
PEDESTRIAN BARRICADE / PHYSICAL BARRIER	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	

REV	BY	DATE	DESCRIPTION	APPD.
0	AG	3.12.22	ORIGINAL ISSUE	LP
COORDINATE SYSTEM:			HEIGHT DATUM:	SCALE:

DRAWN BY: AG  
 DRW CHECK: LP  
 APPROVED: LP  
 IND REVIEW: N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE SHORT TERM LANE CLOSURE  
 & STOP/SLOW OPERATION  
 TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0005-00		
SHEET	3	OF	3
REVISION	0		

TGS VERIFICATION CHECKLIST

Table with 4 columns: Item, Description, Yes, No. Includes items 1, 1.1, 2, 2.1 regarding TGS verification.

Additional comments

RISK ASSESSMENT

Table with 4 columns: Item, Description, Yes, No, Risk, Risk rating. Includes items 3, 3.1, 4, 4.1, 5, 5.1 regarding risk assessment.

RISK EVALUATION MATRIX

Risk Evaluation Matrix table with columns for Likelihood (L1-L6) and Consequence (C1-C6).

RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk.

Table with 3 columns: Item, Control Measures, Residual Risk.

SIGNED - DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: Date: Card No:

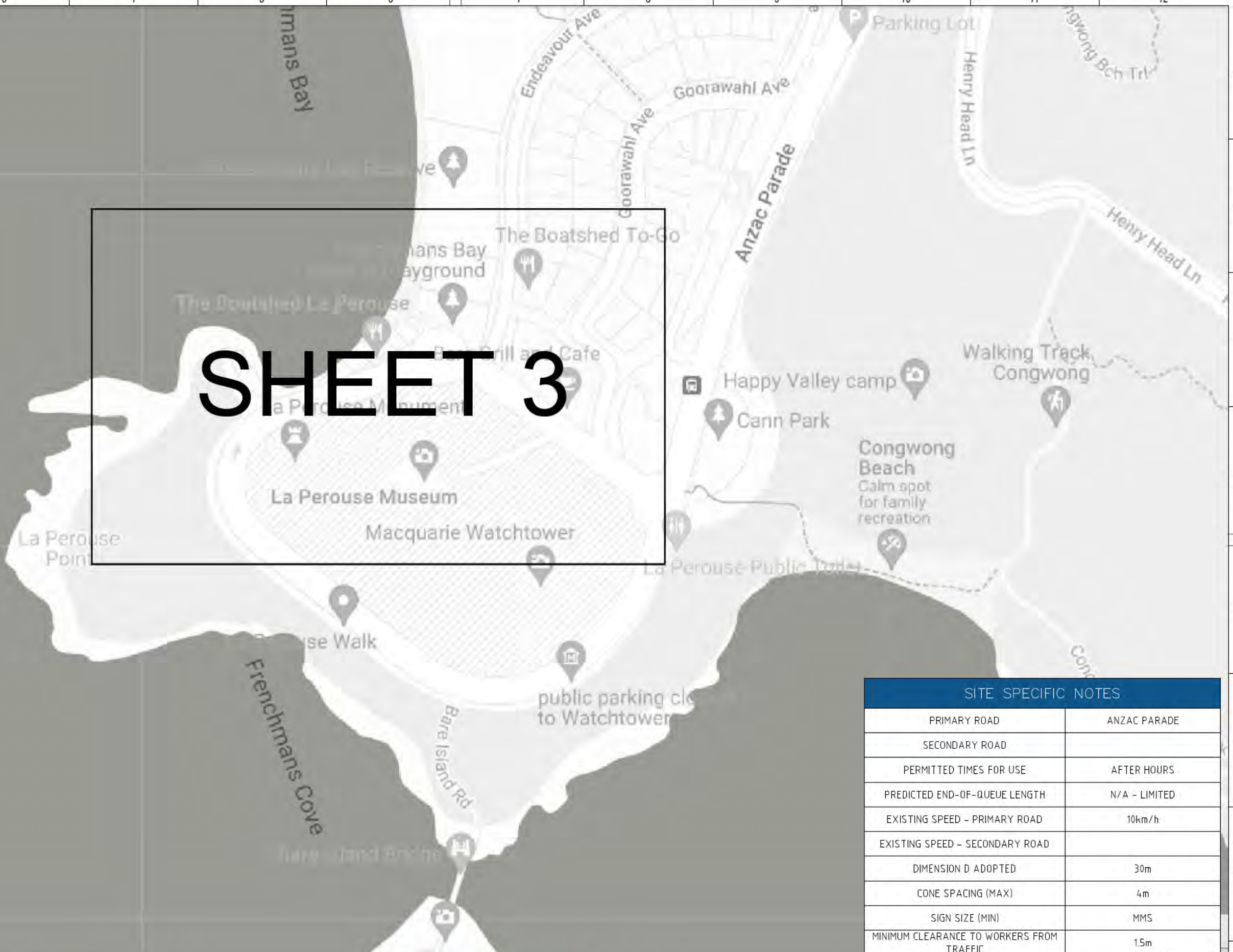
Revision table with columns: REV, BY, DATE, DESCRIPTION, APPD.

Approval table with columns: DRAWN BY, DRW CHECK, APPROVED, IND REVIEW.



McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION ANZAC PARADE VAC TRUCK AFTER HOURS TGS RISK ASSESSMENT

Project information table including Drawing No (MCCD-KAM-TGS-0004-00), Sheet (1 of 3), and Revision (0).



SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	AFTER HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

0	AG	3.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE VAC TRUCK  
AFTER HOURS TGS  
LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0004-00		
SHEET	2	OF	3
REVISION	0		



LEGEND

WORK AREA	
ATF FENCE	
TEMPORARY PEDESTRIAN RAMP	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER



CLIENT



McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE VAC TRUCK  
AFTER HOURS TGS  
TRAFFIC GUIDANCE SCHEME

DRAWING No: MCCD-KAM-TGS-0004-00

SHEET 3 OF 3

REVISION 0



## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45kmh? Is the speed of the road <=60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	L5 / C5	LOW

## RISK EVALUATION MATRIX

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

## RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED – DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY:	AG	
DRW CHECK:	LP	
APPROVED:	LP	
IND REVIEW:	N/A	



CLIENT  
**McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION**

ANZAC PARADE VAC TRUCK  
TGS DURING WORK HOURS  
RISK ASSESSMENT

DRAWING No:	MCCD-KAM-TGS-0003-00	
SHEET	1	OF 3
REVISION	0	

# SHEET 3

SITE SPECIFIC NOTES	
PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

REV	BY	DATE	DESCRIPTION	APPD.
0	AG	3.12.22	ORIGINAL ISSUE	LP

COORDINATE SYSTEM:	HEIGHT DATUM:	SCALE:
--------------------	---------------	--------

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER



CLIENT



McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE VAC TRUCK  
TGS DURING WORK HOURS  
LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0003-00		
SHEET	2	OF	3
REVISION	0		



**LEGEND**

WORK AREA	
ATF FENCE	
TEMPORARY PEDESTRIAN RAMP	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	

DRAWN BY:	AG	DESIGNER
DRW CHECK:	LP	
APPROVED:	LP	
IND REVIEW:	N/A	



McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE VAC TRUCK  
TGS DURING WORK HOURS  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0003-00
SHEET	3 OF 3
REVISION	0

## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45km/h? Is the speed of the road <=60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED - DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr><td>01</td><td>AG</td><td>8.11.22</td><td>UPDATE PEDESTRIAN MOVEMENTS</td><td>LP</td></tr> <tr><td>0</td><td>AG</td><td>25.11.22</td><td>ORIGINAL ISSUE</td><td>LP</td></tr> <tr><td>REV</td><td>BY</td><td>DATE</td><td>DESCRIPTION</td><td>APPD.</td></tr> </table>	01	AG	8.11.22	UPDATE PEDESTRIAN MOVEMENTS	LP	0	AG	25.11.22	ORIGINAL ISSUE	LP	REV	BY	DATE	DESCRIPTION	APPD.	DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A			McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION ANZAC PARADE GATE ACCESS CONSTRUCTION SHORT TERM TGS RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0001-01 SHEET 1 OF 3 REVISION 0
01	AG	8.11.22	UPDATE PEDESTRIAN MOVEMENTS	LP																
0	AG	25.11.22	ORIGINAL ISSUE	LP																
REV	BY	DATE	DESCRIPTION	APPD.																



### GENERAL NOTES

- THIS TCP HAS BEEN PREPARED IN ACCORDANCE WITH THE TCAWS MANUAL V6 2020.
- THE CONTRACTOR SHALL ENSURE ALL ROAD OCCUPANCY PERMITS AND SPEED ZONE AUTHORISATION REQUIREMENTS ARE SATISFIED PRIOR IMPLEMENTATION OF THIS TCP.
- ANY EXISTING SIGNAGE THAT CONFLICTS WITH THIS TCP MUST BE COVERED AT THE START OF OPERATION AND UNCOVERED AT THE COMPLETION.
- THE SITE MUST COMPLY WITH THE TRAFFIC CONTROL AT WORK SITES MANUAL V6 2020 EDITION AND A.S. 1742.3
- LOCATION CHECKLIST MUST BE COMPLETED FOR ALL WORKSITES
- SIGNS TO BE POSITIONED IN ACCORDANCE WITH THE TCAWS MANUAL V6 2020.
- TRAFFIC CONTROLLERS TO BE POSITIONED WHERE THEY CAN MAINTAIN A CLEAR ESCAPE PATH.
- THIS TCP USE IS LIMITED TO THAT OF MCCONNELL DOWELL AND THEIR ASSOCIATED SUBCONTRACTORS, TRAFFIC CONTROL PROVIDERS AND FOR THE PROJECT REFERENCED.

# SHEET 2

### SITE SPECIFIC NOTES

PRIMARY ROAD	ANZAC PARADE
SECONDARY ROAD	
PERMITTED TIMES FOR USE	
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	30m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

01	AG	8.11.22	UPDATE PEDESTRIAN MOVEMENTS	LP
00	AG	25.11.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY: AG  
 DRW CHECK: LP  
 APPROVED: LP  
 IND REVIEW: N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  
 ANZAC PARADE GATE ACCESS CONSTRUCTION  
 SHORT TERM TGS  
 LOCALITY PLAN

DRAWING No: MCCD-KAM-TGS-0001-01  
 SHEET 2 OF 3  
 REVISION 0



**SITE INSTALLATION NOTES**

- TRAFFIC CONTROLLERS TO MANAGE PEDESTRIANS WHO WISH TO MOVE THROUGH THE WORKSITE



**LEGEND**

WORK AREA	
PEDESTRIAN DETOUR ROUTE	
CLOSED PEDESTRIAN PATH	
PEDESTRIAN BARRICADE / PHYSICAL BARRIER	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	

01	AG	8.11.22	UPDATE PEDESTRIAN MOVEMENTS	LP
00	AG	25.11.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

ANZAC PARADE GATE ACCESS CONSTRUCTION  
SHORT TERM TGS  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0001-01
SHEET	3 OF 3
REVISION	0

## TGS VERIFICATION CHECKLIST

1	Have the below items been addressed on the TGS for this location?	Yes	No
1.1	Traffic Volumes <input checked="" type="checkbox"/> <input type="checkbox"/> Predicted queue length <input checked="" type="checkbox"/> <input type="checkbox"/> Shoulder widths <input checked="" type="checkbox"/> <input type="checkbox"/> Sight distances <input checked="" type="checkbox"/> <input type="checkbox"/> Existing infrastructure <input checked="" type="checkbox"/> <input type="checkbox"/> Transport services (i.e. bus stops) <input checked="" type="checkbox"/> <input type="checkbox"/> Pedestrian generators <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate site access <input checked="" type="checkbox"/> <input type="checkbox"/> Appropriate escape route for traffic controllers <input checked="" type="checkbox"/> <input type="checkbox"/>		
2	Confirmation	Yes	No
2.1	Does the TGS require adjustments within tolerances? <input type="checkbox"/> <input type="checkbox"/> Does the TGS require any additional modifications? <input type="checkbox"/> <input type="checkbox"/> Is the TGS appropriate for use for works? <input type="checkbox"/> <input type="checkbox"/> Have key risk been addressed on site? <input type="checkbox"/> <input type="checkbox"/>		

Additional comments

## RISK ASSESSMENT

3	Does the TGS Involve Detours of traffic?	Yes	No	Risk	Risk rating
3.1	Are Detour routes suitable for all vehicle classes being detoured? Is access to residential properties and businesses maintained? Are detour signs located at decision points? Can roads and intersections used as detour routes accommodate the volumes? Is the same level of safety maintained for turn movements?	<input type="checkbox"/>	<input type="checkbox"/>		
4	Does the TGS involve Stop/slow arrangements?	Yes	No	Risk	Risk rating
4.1	Are escape routes defined on the TGS, clear and safe to use? Is a PTCO used in place of a Traffic Controller where speed >45km/h? Is the speed of the road <=60km/h where TC or PTCO are in use? Are 4x traffic cones placed on the edge or centre line, approaching TC or PTCO? Is Prepare to stop and Traffic control or PTCO symbolic sign installed? Do TC and PTCO positions have adequate lighting during low light conditions? Does sight distance of at least 1.5D exist on approach to TC or PTCO?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		LOW
5	General	Yes	No	Risk	Risk rating
5.1	Does the TGS define minimum clearances required of workers to live traffic? Are distances compliant? Are worker symbolic signs shown in advance of workers that are visible to traffic? Are all signs placed at correct distances? i.e. D for multiple or 2D for single sign? Are taper lengths compliant and not placed in areas with poor sight distance? Are lane status signs to be placed in advance of a lane merge? Are the correct tapers being used? i.e. Merge, Traffic Control, Lateral shift? Does the TGS clearly define transition zones between tapers on Multi-lane roads? Are they compliant? Does the TGS clearly define buffer areas and are they at least 30m in length? Does the TGS clearly define site access and egress for work vehicles? Are any impacts on traffic managed? Does the TGS clearly define pedestrian routes, and are they suitable? Does the TGS consider cyclists and can they traverse site safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L5 / C5	LOW

### RISK EVALUATION MATRIX

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

### RISK MANAGEMENT

\* If 'No' selected for any question in items 3, 4 or 5 in the RISK ASSESSMENT above a control needs to be assigned in the table below to mitigate any additional risk. Where blank refer Risk Assessment included as part of TMP.

Item	Control Measures	Residual Risk

### SIGNED - DESIGNER AND VERIFICATION (PWZTMP OR ITCP)

Name: Louis Peau Sign: \_\_\_\_\_ Date: \_\_\_\_\_ Card No: \_\_\_\_\_

Name: \_\_\_\_\_ Sign: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Card No: \_\_\_\_\_

DRAWN BY: AG DRW CHECK: LP APPROVED: LP IND REVIEW: N/A			McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION  CAPE SOLANDER DR KURNELL SHORT TERM GATE ACCESS CONSTRUCTION RISK ASSESSMENT	DRAWING No: MCCD-KAM-TGS-0011-00 SHEET 1 OF 3 REVISION 0
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**SITE INSTALLATION NOTES**

- VMS MESSAGES TO BE APPROVED BY THE RELEVANT ROAD AUTHORITY.

VMS 2

XXX  
XXX  
XXX

XXX  
XXX  
XXX

SITE SPECIFIC NOTES	
PRIMARY ROAD	CAPTAIN COOK DR
SECONDARY ROAD	
PERMITTED TIMES FOR USE	DURING WORK HOURS
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	50 km/h
EXISTING SPEED - SECONDARY ROAD	
DIMENSION D ADOPTED	50m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

REV	BY	DATE	DESCRIPTION	APPD.
0	AG	26.02.23	ORIGINAL ISSUE	LP

COORDINATE SYSTEM:      HEIGHT DATUM:      SCALE:

DRAWN BY: AG  
 DRW CHECK: LP  
 APPROVED: LP  
 IND REVIEW: N/A



CLIENT  
 McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

CAPTAIN COOK DR KURNELL  
 SHORT TERM TGS  
 LOCALITY PLAN AND VMS MESSAGING

DRAWING No: MCCD-KAM-TGS-0017-00

SHEET 1 OF 1

REVISION 0





# SHEET 3

SITE SPECIFIC NOTES	
PRIMARY ROAD	CAPE SOLANDER DR
SECONDARY ROAD	CAPTAIN COOK DR
PERMITTED TIMES FOR USE	
PREDICTED END-OF-QUEUE LENGTH	N/A - LIMITED
EXISTING SPEED - PRIMARY ROAD	10 km/h
EXISTING SPEED - SECONDARY ROAD	50 km/h
DIMENSION D ADOPTED	50m
CONE SPACING (MAX)	4m
SIGN SIZE (MIN)	MMS
MINIMUM CLEARANCE TO WORKERS FROM TRAFFIC	1.5m

REV	BY	DATE	DESCRIPTION	APPD.
0	AG	13.12.22	ORIGINAL ISSUE	LP

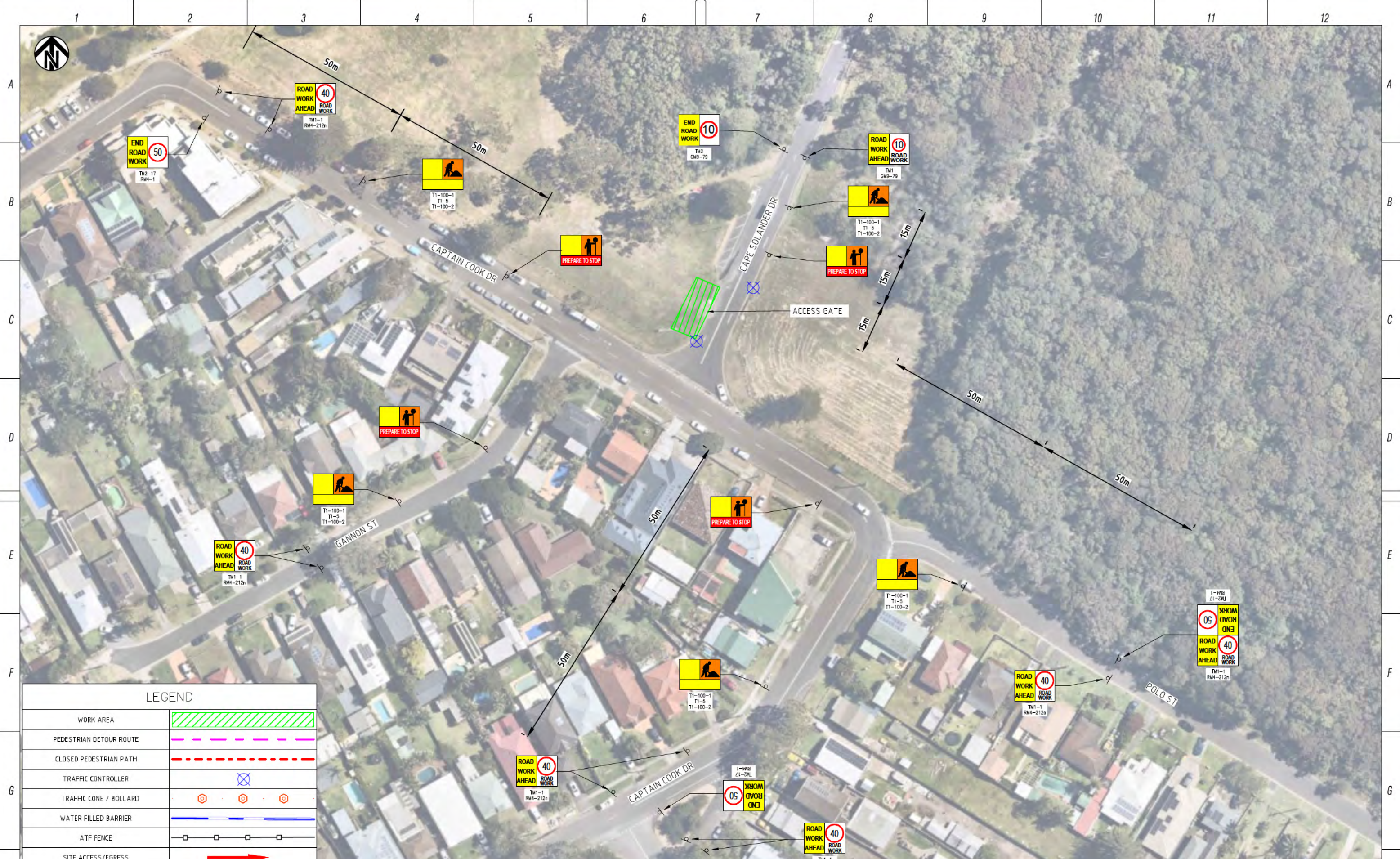
DRAWN BY:	AG	DESIGNER
DRW CHECK:	LP	
APPROVED:	LP	
IND REVIEW:	N/A	



McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

CAPE SOLANDER DR KURNELL  
SHORT TERM GATE ACCESS CONSTRUCTION  
LOCALITY PLAN

DRAWING No:	MCCD-KAM-TGS-0011-00		
SHEET	2	OF	3
REVISION	0		



LEGEND	
WORK AREA	
PEDESTRIAN DETOUR ROUTE	
CLOSED PEDESTRIAN PATH	
TRAFFIC CONTROLLER	
TRAFFIC CONE / BOLLARD	
WATER FILLED BARRIER	
ATF FENCE	
SITE ACCESS/EGRESS	

0	AG	13.12.22	ORIGINAL ISSUE	LP
REV	BY	DATE	DESCRIPTION	APPD.
COORDINATE SYSTEM:		HEIGHT DATUM:	SCALE:	

DRAWN BY:	AG
DRW CHECK:	LP
APPROVED:	LP
IND REVIEW:	N/A

DESIGNER

CLIENT

McCONNELL DOWELL - KAMAY FERRY WHARVES CONSTRUCTION

CAPE SOLANDER DR KURNELL  
SHORT TERM GATE ACCESS CONSTRUCTION  
TRAFFIC GUIDANCE SCHEME

DRAWING No:	MCCD-KAM-TGS-0011-00
SHEET	3 OF 3
REVISION	0

# Attachment C – Environmental Regulations

## Relevant legislation and guidelines

### Legislation

All legislation relevant to this TMP is included in Appendix C of the CEMP.

### Guidelines and standards

The main guidelines, specifications and policy documents relevant to this Plan include:

- MCoA SSI 10049
- EPBC-CoA (Pending)
- An approved and valid Road Occupancy Licence (ROL).
- An approved relevant Speed Zone Authorisation (SZA).
- Australian Road Rules
- *Disability Discrimination Act 1992* (DDA)
- Randwick Bicycle Plan (Randwick City Council, 2015)
- Future Transport 2056 (Transport for NSW, 2018)
- South East Sydney Transport Strategy (Transport for NSW, 2020)
- Sutherland Shire Bicycle Network Map (Sutherland Shire Council, 2015)
- Kamay Botany Bay National Park and Kurnell Master Plan (NSW DPIE, 2019)

Legislation relevant to traffic management also includes the *Environmental Planning and Assessment Act 1979* (EP&A Act), under which the project approval was granted. Relevant provisions of the EP&A Act are explained in the register of legal and other requirements included in Appendix C of the CEMP.

- Roads and Maritime Traffic Control at Worksites Manual (2010).
- AUSTRROADS Guide to Traffic Management 2009 – Parts 1-13
- AUSTRROADS Guide to Road Design 2009 – Parts 1-7
- AUSTRROADS Guide to Road Safety 2009 \_ Parts 1-9

## Ministers Conditions of Approval

The CoA relevant to this Plan are listed in Table 3-1 below. A cross reference is also included to indicate where the condition is addressed in this TMP or other Project management documents.

**Table 18-1 : Conditions of Approval relevant to the TMP**

CoA No.	Condition Requirements	Document reference
C8	<p>The Traffic, Transport and Access CEMP Sub-plan must include the following:</p> <ul style="list-style-type: none"> <li>(a) identify roads to be utilised as part of Construction and measures to ensure construction vehicles follow this route;</li> <li>(b) identify marine construction and vessel mooring zones and measures to delineate these areas;</li> <li>(c) measures to physically separate pedestrian and construction vehicle movements, such as temporary barriers; and</li> <li>(d) where access is via non-road land (such as across lawn areas of NPWS land) vehicle routes must be agreed in consultation with NPWS, and large vehicle movements is to be minimised to avoid excess ground compression and Aboriginal cultural heritage and vegetation impacts.</li> </ul>	This Plan

CoA No.	Condition Requirements	Document reference
E40	Any property access that is physically affected by the SSI must be reinstated to at least an equivalent standard, in consultation with the landowner or alternative access provided in consultation with the landowner.	Section 10.6
E71	Access to all utilities and properties must be maintained during construction, where practicable, unless otherwise agreed with the relevant utility owner, landowner or occupier.	Section 10.6

CoA No.	Condition Requirements	Document reference
E72	Any property access physically affected by the SSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier.	Section 14 Table 14-1
E73	Local roads proposed to be used by heavy vehicles to directly access the construction boundary and ancillary facilities that are not shown in Figure 49 and 50 of Appendix K of the EIS listed in Condition A1 must be approved by the Planning Secretary and included in the Traffic, Transport and Access Management CEMP Sub-plan required in Condition C6.	Section 7.1
E74	<p>All requests to the Planning Secretary for approval to use local roads for construction activities must include a Traffic and Pedestrian Impact Assessment and be prepared in consultation with the relevant local council(s). The assessment must be undertaken by an appropriately qualified and experienced person and must include a swept path analysis if required by the Department. The assessment must include the following:</p> <ul style="list-style-type: none"> <li>(a) a swept path analysis;</li> <li>(b) demonstration that the use of local roads by heavy vehicles for the SSI will not compromise the safety of pedestrians and cyclists or the safety of two-way traffic flow on two-way roadways;</li> <li>(c) provide details as to the date of completion of the road dilapidation surveys for the subject local roads; and</li> <li>(d) describe the measures that will be implemented to avoid where practicable the use of local roads past schools, aged care facilities and child care facilities during their peak operation times.</li> </ul> <p>The outcomes and recommendations of the assessment must be incorporated into the Traffic Management CEMP Sub-plan required in Condition C6 as relevant.</p>	Section 7.1

CoA No.	Condition Requirements	Document reference
E75	Before any local road is used by a heavy vehicle for the purposes of the SSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used by heavy vehicles associated with the SSI.	Section 7.5
E76	If damage to roads occurs as a result of the SSI, the Proponent must either (at the relevant road authority's discretion): (a) compensate the relevant road authority for the damage so caused; or (b) rectify the damage to restore the road to at least the condition it was in pre-works as identified in the Road Dilapidation Report(s).	Section 7.1
E77	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, a proximate alternative route which complies with relevant standards, unless otherwise endorsed by an independent, appropriately qualified and experienced person, must be provided (including signposting) prior to the restriction or removal of the impacted access.	Section 10.1 & Section 10.3
E78	Construction and construction worker vehicles (including light and heavy vehicles) associated with the SSI must be accommodated within the construction boundaries on both the La Perouse and Kurnell sites at all times. On-site parking must be provided within the construction boundary to: (a) minimise parking on public roads; (b) minimise idling and queueing on local roads; (c) not carry out marshalling of construction vehicles near sensitive land use(s); (d) not block or disrupt access across pedestrian or shared user paths at any time; and	Section 7.3



CoA No.	Condition Requirements	Document reference
E79	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, and parking arrangements must be developed in consultation with affected businesses and implemented prior to the disruption. Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.	Section 10.6
Table 5 Appendix A EIS	The safety and efficiency of the transport system (including parking) in the vicinity of the project are managed to minimise impacts. The safety of transport system customers is maintained. Impacts on network capacity and the level of service are effectively managed.	Section 14 Table 14-1 and section 2.3

## EPBC Conditions of Approval

The EPBC relevant to this Plan are listed in the tables below. A cross reference is also included to indicate where the condition is addressed in this Plan or other Project management documents.

**Table 17-2** EPBC Conditions of Approval

Ref	Description	Owner	Evidence
1)	The approval holder must not clear outside of the project area.	All	CEMP Appendix B2 – Biodiversity Management Sub Plan
<b>National Heritage Places</b>			
2)	The approval holder must comply with NSW Approval conditions E21 – E37 and E49 to minimise impacts on the Indigenous, Non-Indigenous, and Natural heritage values of Kurnell Peninsula Headland.	All	CEMP Appendix B1 – Heritage Management Sub Plan
<b>Listed Threatened Species and Ecological Communities</b>			
3)	Within the project area, the approval holder must not clear more than: a) 0.0683 hectares of seagrass meadows b) 0.0683 hectares of White’s Seahorse habitat.	All	CEMP Appendix B2 – Biodiversity Management Sub Plan
4)	The approval holder must comply with NSW Approval conditions E6 – E8 and E11 related to preconstruction surveying and protection measures.	All	CEMP Appendix B2 – Biodiversity Management Sub Plan
5)	The approval holder must comply with NSW Approval conditions E62 – E65, E67 – E68, and E70 related to the prevention and management of contamination on protected matters.	All	CEMP Appendix B6 – Soil, Water & Contamination Management Sub Plan

Ref	Description	Owner	Evidence
Construction Environmental Management Plan			
6)	The approval holder must comply with NSW Approval conditions C1 – C13 related to the preparation and implementation of a Construction Environmental Management Plan (CEMP) to avoid, mitigate and manage impacts on protected matters during construction.	All	Construction Environmental Management Plan (this plan)
7)	The CEMP required by the NSW Approval must include environmental management measures to manage impacts to protected matters and be informed by the contamination documentation.	MCD	CEMP Appendix B6 – Soil, Water & Contamination Management Sub Plan
Marine Biodiversity Offset Strategy			
10)	The approval holder must comply with NSW Approval conditions E12 – E20 related to the requirements of the Marine Biodiversity Offset Strategy (MBOS) to compensate for the clearing of 0.0683 hectares of seagrass meadows and White's Seahorse habitat.	TfNSW	TfNSW

Ref	Description	Owner	Evidence
11)	<p>To monitor the outcomes of the MBOS for seagrass meadows and White’s Seahorse habitat, the approval holder must include a Marine Biodiversity Offset Report as part of the compliance report until at least the 10th anniversary of the commencement of the action, unless otherwise agreed to in writing by the Minister. Each Marine Biodiversity Offset Report must include:</p> <ul style="list-style-type: none"> <li>a. a progress report on the implementation of the MBOS;</li> <li>b. a list of success metrics;</li> <li>c. details of the monitoring methodology(ies) implemented and the locations of reference sites;</li> <li>d. monitoring results including a comparison against reference sites;</li> <li>e. a summary of any adaptive management steps taken to improve implementation and/or monitoring methodology(ies); and</li> <li>f. a conclusion as to whether the outcomes, as measured against the success metrics, have been achieved, are likely to be met or are unlikely to be met, as determined by a suitably qualified person.</li> </ul>	TfNSW	TfNSW

Ref	Description	Owner	Evidence
12)	<p>To assess the ongoing success of the MBOS, the approval holder must submit a Rehabilitation Monitoring Review to the department within 6 years of the date of this approval and every 5 years thereafter, unless otherwise agreed to in writing by the Minister. Each Rehabilitation Monitoring Review must include:</p> <ul style="list-style-type: none"> <li>a. a review of the monitoring methodology by a suitably qualified person;</li> <li>b. a conclusion based on the success metrics as to whether the environmental offsets for seagrass meadows and White's Seahorse habitat have been achieved, are likely to be met or are unlikely to be met, as determined by a suitably qualified person; and</li> <li>c. if environmental offsets for seagrass meadows and White's Seahorse habitat have not been achieved based on the success metrics: <ul style="list-style-type: none"> <li>i. a list measurable and time-bound remediation measures which will be undertaken to ensure the success metrics are achieved; and</li> <li>ii. justification for how the remediation measures will provide full compensation for the impacts to seagrass meadows and White's Seahorse habitat.</li> </ul> </li> </ul>	TfNSW	TfNSW
<b>Submission and Publication of Plans</b>			
13)	The approval holder must submit all plans required by these conditions electronically to the department.	TfNSW	TfNSW
14)	If the approval holder submits a revised version of a plan for the Planning Secretary's approval, the approval holder must provide the revised plan to the department within 5 business days and an explanation of the differences between the approved plan and the revised plan.	TfNSW	TfNSW
15)	If a revised version of a plan is approved by the Planning Secretary, the approval holder must provide the revised plan to the department within 10 business days of the Planning Secretary's approval.	TfNSW	TfNSW

Ref	Description	Owner	Evidence
16)	Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date: <ul style="list-style-type: none"> <li>a. the plan is approved by the Planning Secretary; or</li> <li>b. a revised version of the plan is approved by the Planning Secretary.</li> </ul>	TfNSW	TfNSW
17)	The approval holder must keep all published plans required by these conditions on the website until the expiry date of this approval.	TfNSW	TfNSW
18)	The approval holder must exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public.	TfNSW	TfNSW
19)	If sensitive ecological data is excluded or redacted from a plan, the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website	TfNSW	TfNSW
<b>Notification of Date of Commencement of the Action</b>			
20)	The approval holder must notify the department electronically of the date of commencement of the action, within 5 business days of the commencement of the action.	TfNSW	TfNSW
21)	If the commencement of the action does not occur within 5 years from the date of this approval, then the approval holder must not commence the action without the prior written agreement of the Minister.	TfNSW	TfNSW
<b>Compliance Records</b>			
22)	The approval holder must maintain accurate and complete compliance records.	All	CEMP Section 8.4
23)	If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request.		

Ref	Description	Owner	Evidence
24)	Note: Compliance records may be subject to audit by the department, or by an independent auditor in accordance with section 458 of the EPBC Act, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the department's website or through the general media.	TfNSW	TfNSW
25)	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guidelines for biological survey and mapped data (Commonwealth of Australia 2018), or as otherwise specified by the Minister in writing.	All	CEMP Section 8.1.2
26)	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guide to providing maps and boundary data for EPBC Act projects (Commonwealth of Australia 2021), or as otherwise specified by the Minister in writing.	All	CEMP Section 8.1.2
<b>Annual Compliance Reporting</b>			
27)	The approval holder must prepare a compliance report for each 12-month period following the date of this approval, or as otherwise agreed to in writing by the Minister.	TfNSW	TfNSW
28)	Each compliance report must be consistent with the Annual Compliance Report Guidelines (Commonwealth of Australia 2014).	TfNSW	TfNSW
29)	Each compliance report must include: <ul style="list-style-type: none"> <li>a. Accurate and complete details of compliance and any non-compliance with the conditions and the plans, and any incidents.</li> <li>b. One or more shapefile showing all clearing of any protected matters, and/or their habitat, undertaken within the 12-month period at the end of which that compliance report is prepared.</li> <li>c. A schedule of all plans in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.</li> </ul>	TfNSW	TfNSW

Ref	Description	Owner	Evidence
30)	<p>The approval holder must:</p> <ul style="list-style-type: none"> <li>a) Publish each compliance report on the website within 60 business days following the end of the 12-month period for which that compliance report is required.</li> <li>b) Notify the department electronically, within 5 business days of the date of publication, that a compliance report has been published on the website.</li> <li>c) Provide the weblink for the compliance report in the notification to the department.</li> <li>d) Keep all published compliance reports required by these conditions on the website until the expiry date of this approval.</li> <li>e) Exclude or redact sensitive ecological data from compliance reports published on the website or otherwise provided to a member of the public.</li> <li>f) If sensitive ecological data is excluded or redacted from the published version, submit the full compliance report to the department within 5 business days of its publication on the website and notify the department in writing what exclusions and redactions have been made in the version published on the website.</li> </ul> <p>Note: Compliance reports may be published on the department's website</p>	TfNSW	TfNSW
<b>Reporting Non-Compliance</b>			
31)	The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with these conditions or commitments made in a plan.	TfNSW	TfNSW



Ref	Description	Owner	Evidence
32)	<p>The approval holder must specify in the notification:</p> <ul style="list-style-type: none"> <li>a) Any condition or commitment made in a plan which has been or may have been breached.</li> <li>b) A short description of the incident and/or potential non-compliance and/or actual non-compliance.</li> <li>c) The location (including co-ordinates), date, and time of the incident and/or potential non-compliance and/or actual non-compliance.</li> </ul> <p>Note: If the exact information cannot be provided, the approval holder must provide the best information available.</p>	TfNSW	TfNSW
33)	<p>The approval holder must provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with these conditions or commitments made in a plan. The approval holder must specify:</p> <ul style="list-style-type: none"> <li>a) Any corrective action or investigation which the approval holder has already taken.</li> <li>b) The potential impacts of the incident and/or non-compliance and/or non-compliance.</li> <li>c) The method and timing of any corrective action that will be undertaken by the approval holder.</li> </ul>	TfNSW	TfNSW
<b>Independent Audit</b>			
34)	<p>The approval holder must ensure that an independent audit of compliance with these conditions is conducted for every five-year period following the commencement of the action until this approval expires, unless otherwise specified in writing by the Minister.</p>	TfNSW	TfNSW

Ref	Description	Owner	Evidence
35)	<p>For each independent audit, the approval holder must:</p> <ul style="list-style-type: none"> <li>a) Provide the name and qualifications of the nominated independent auditor, the draft audit criteria, and proposed timeframe for submitting the audit report to the department prior to commencing the independent audit.</li> <li>b) Only commence the independent audit once the nominated independent auditor, audit criteria and timeframe for submitting the audit report have been approved in writing by the department.</li> <li>c) Submit the audit report to the department for approval within the timeframe specified and approved in writing by the department.</li> <li>d) Publish each audit report on the website within 15 business days of the date of the department's approval of the audit report.</li> <li>e) Keep every audit report published on the website until this approval expires.</li> </ul>	TfNSW	TfNSW
36)	Each audit report must report for the five-year period preceding that audit report.	TfNSW	TfNSW
37)	Each audit report must be completed to the satisfaction of the Minister and be consistent with the Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines (Commonwealth of Australia 2019).	TfNSW	TfNSW
<b>Completion of the Action</b>			
38)	The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire.	TfNSW	TfNSW
39)	Within 20 business days after the completion of the action, and, in any event, before this approval expires, the approval holder must notify the department electronically of the date of completion of the action and provide completion data.	TfNSW	TfNSW
<b>Changes to State Conditions</b>			

Ref	Description	Owner	Evidence
40)	The approval holder must inform the department in writing within 2 business days of requesting any change to the NSW Approval conditions that may relate to protected matters.	TfNSW	TfNSW
41)	The approval holder must inform the department in writing within 5 business days of any approved changes made to the NSW Approval conditions that may relate to protected matters.	TfNSW	TfNSW

## Revised Environmental Management Measures

Relevant REMMs are listed in Table 3-2 below. This includes reference to required outcomes, the timing of when the commitment applies, relevant documents or sections of the environmental assessment influencing the outcome and implementation.

**Table 18-3:** Environmental Management Measures relevant to this TMP

Outcome	Ref #	Commitment	Responsibility	Timing	TMP reference
Landside traffic risks during construction	T1	A Traffic Management Plan (TMP) will be prepared in accordance with Traffic Control at Work Sites - Technical Manual (Transport for NSW, 2020h).  It will be implemented under the CEMP. The TMP will focus on maintaining general traffic flow, specifying appropriate site accesses, construction parking and construction traffic routes. The TMP will be prepared in consultation with National Parks and Wildlife Service, Randwick City Council and Sutherland Shire Council.	McConnell Dowell	Pre-construction  Construction	T_01
Construction parking at La Perouse	T3	Construction worker parking along Anzac Parade at La Perouse will be avoided during peak periods (weekends). Consideration of a temporary parking facility at La Perouse will be considered during development of the TMP.	McConnell Dowell	Construction	T_05
Conflict between cyclists and construction vehicles	T4	Interaction between cyclists and construction related vehicles will be managed and proposed alternative routes provided within the TMP.	McConnell Dowell	Construction	T_07

Outcome	Ref #	Commitment	Responsibility	Timing	TMP reference
Conflict between pedestrians and construction vehicles	T5	Where disruption or closure of pedestrian routes is required during construction, alternate pedestrian routes, appropriate signage and safe access will be provided in consultation with Randwick City Council, Sutherland Shire Council and National Parks and Wildlife Services.	McConnell Dowell	Construction	T_08
Emergency vehicle access	T6	Emergency vehicle access will be maintained during construction. Any site-specific requirements will be determined in consultation with the relevant emergency services agency.	McConnell Dowell	Construction	T_011