CONSTRUCTION TRAFFIC AND ACCESS MANAGEMENT PLAN – PHASE B

Moorebank Precinct East Stage 2

18 AUGUST 2022

SYDNEY INTERMODAL TERMINAL ALLIANCE

Moorebank Precinct East Stage 2

Construction Traffic and Access Management Plan

Current Revision Author	[redacted]
Checker	
Approver	
Report No	SSS2-QPMS-EN-PLN-0040
Date	18/08/2022
Revision Text	O

Original Author Details

Author Details	Qualifications and Experience
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REVISIONS

Revision	Date	Description	Prepared by	Approved by
A	07/02/2019	Draft for client review	[redacted]	[redacted]
B	12/03/2019	Issue for Consultation	[redacted]	[redacted]
C	24/05/2019	Update with MPW Commonwealth Approvals relevant to Moorebank Avenue upgrade works	[redacted]	[redacted]

Revision	Date	Description	Prepared by	Approved by
D	05/06/2019	Update to address RMS comments	[redacted]	[redacted]
E	03/07/2019	Update to consultation table and submission to DPIE	[redacted]	[redacted]
F	09/07/2019	Update to address DoTEE comments on Rev C (note that updates resulting from Rev D and E are pending)	[redacted]	[redacted]
G	09/08/2019	Update to address DotEE comments on Rev F	[redacted]	[redacted]
H	15/08/2019	Update to address: - RMS comments on consultation, including on Rev B - Provisions for access to Moorebank Avenue Upgrade Works site	[redacted]	[redacted]
I	25/09/2019	Update to address RMS comments on Rev H	[redacted]	[redacted]
J	21/10/19	Updated to address ER comments on Rev I	[redacted]	[redacted]
K	06/12/2019	Updated to address DPIE and RMS close out comments on Rev I, and ER comments on Rev J.	[redacted]	[redacted]
L	20/12/2019	Updated to address DPIE conditional approval of Rev K	[redacted]	[redacted]
M	07/08/2020	Minor updates associated with: • RfMA-018 – MAUW boundary change • RfMA-028 – MUAW/MADR stockpile area • SSD 7628-Mod 2 approval	[redacted] [redacted]	[redacted] [redacted]
N	19/03/2021	Updates associated with: • RfMA-039 – Corrections and update to Extended Hours Works Plan, and revision to construction program • RfMA-040 – Additional compound for light vehicle parking and break facilities • SSD 7628 – MOD3 • SSD 7628 – MOD4	[redacted]	[redacted]
O	18/08/2022	Updates associated with: • SSD 7628 – MOD1 • WH 6&7 amended layout • RfMA 041 - update to Drivers Code of Conduct	[redacted]	[redacted]

ACRONYMS AND DEFINITIONS

Acronym/Term	Meaning
AS1742	Australian Standard 1742 – Manual of Uniform Traffic Control Devices
Ave. Delay	Average Delay
CCS	Community Communication Strategy
CEC	Community Engagement Consultant
CEMP	Construction Environmental Management Plan
Contractor	Construction Contractor
Contractor's CLM	Contractor's Community Liaison Manager
Contractor's CM	Contractor's Construction Manager
Contractor's EM	Contractor's Environmental Manager
Contractor's PM	Contractor's Project Manager
CMM	Commonwealth Mitigation Measures
CNVMP	Construction Noise and Vibration Management Plan
CoC	Conditions of Consent
CPCoA	MPE Project Concept Plan Conditions of Approval
CTAMP	Construction Traffic and Access Management Plan
CTAMP-A	Construction Traffic and Access Management Plan for Constriction Phase A
CTAMP-B	Construction Traffic and Access Management Plan for Construction Phases A and B
CTIA	Construction Traffic Impact Assessment
DP&E	Department of Planning and Environment (now DPIE)
DPIE	Department of Planning, Industry and Environment (formerly DP&E)
DNSDC	Defence National Storage and Distribution Centre
EIS	MPE Stage 2 Environmental Impact Statement
EMS	Environmental Management System
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999

Acronym/Term	Meaning
EWEMP	Early Works Environmental Management Plan
EWTAMP	Early Works Traffic and Access Management Plan
FCMM	Final Compilation of Mitigation Measures
IMEX	Import-export
LGA	Local Government Area
LoS	Level of Service
Local road users	Users accessing the road network associated with the Project site
Minister, the	Minister of Department of Planning and Environment
MPE	Moorebank Precinct East
MPW	Moorebank Precinct West
MPE EPBC Approval	Commonwealth Approval (No. 2011/6229) granted in March 2014 under the Environment Protection and Biodiversity Conservation Act 1999, for the impact of the MPE Project on listed threatened species and communities (sections 18 and 18A of the EPBC Act) and Commonwealth land (sections 26 and 27A of the EPBC Act).
MPW EPBC Approval	Commonwealth Approval (No. 2011/6086) granted under the EPBC Act on September 2016 by the Commonwealth Department of Environment and Energy for the development of the SIMTA Moorebank Intermodal Terminal Facility at Moorebank.
Non-compliance	An occurrence, set of circumstances, or development that results in a non-compliance or is non-compliant with Development Consent SSD 7628 Conditions of Consent or EPBC Act Approval (EPBC 2011/6229) Conditions of Approval but is not an incident
Non-conformance	Observations or actions that are not in strict accordance with the CEMP and the aspect specific sub-plan
OSOM	An Oversize Overmass (OSOM) vehicle is a heavy vehicle that is carrying, or specially designed to carry, a large indivisible item.
PAC	The Planning Assessment Commission
PCTAMP	Preliminary Construction Traffic and Access Management Plan
POEO Act	Protection of the Environment Operations Act 1997
Project, the	The MPE Stage 2 Project, Stage 2 of the MPE Concept Approval (MP 10_0193), approved under SSD 7628, including the SSD 7628-Mod 2, SSD 7628-Mod 3 and SSD 7628-Mod 4 approvals. It involves the construction and operation of warehousing and distribution facilities on the MPE site and upgrades to approximately 2.1 kilometres of Moorebank Avenue.

Acronym/Term	Meaning
Roads and Maritime	Roads and Maritime Services
RSoC	Revised Statement of Commitments
RtS	Response to Submissions
SIMTA	Sydney Intermodal Terminal Alliance
SSD	State Significant Development
TCP	Traffic Control Plan
TCS	Traffic Control Signal
TMP	Traffic Management Plan
WAD	Works Authorisation Deed

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1 BACKGROUND

The Sydney Intermodal Terminal Alliance (SIMTA) received approval for the construction and operation of Stage 2 of the Moorebank Precinct East (MPE) Project (SSD 7628), which comprises the second stage of development under the MPE Concept Consent (MP10_0193). SSD 7628 has been subject to the following modification applications:

- MPE Stage 2 Modification 2 (SSD 7628-Mod 2) application, which was approved on 31 January 2020;
- MPE Stage 2 Modification 3 (SSD 7628-Mod 3) application, which was approved on 18 December 2020; and
- MPE Stage 2 Modification 4 (SSD 7628-Mod 4) application, which was approved on 19 January 2021.
- MPE Stage 2 Modification 1 (SSD 7608-Mod 1) application, which was approved on 14 March 2022.

This Construction Traffic and Access Management Plan (CTAMP) represents an update of CTAMP-A (developed for Construction Phase A) in order to manage traffic impacts during Construction Phase A and Construction Phase B of Stage 2 of the Moorebank Precinct East (MPE) Project (hereafter, 'the Project').

Within this CTAMP-B, a strategy has been established to demonstrate the contractor's approach to the management of traffic impacts. This CTAMP addresses the relevant requirements of the Project Approvals, including the Environmental Impact Statement (EIS), Response to Submissions (RtS) and Minister's Conditions of Consent (CoCs), and all applicable guidelines and standards specific to the management of construction traffic and vehicle access during construction phases of the Project.

1.1 Introduction

The MPE site, including the Project site, is located approximately 27 kilometres (km) south-west of the Sydney Central Business District (CBD) and approximately 26 km west of Port Botany and includes the former Defence National Storage and Distribution Centre (DNSDC) site. The MPE site is situated within the Liverpool Local Government Area (LGA), in Sydney's South West subregion, approximately 2.5 km from the Liverpool City Centre.

Stage 2 of the MPE Project (the Project) involves the construction and operation of warehousing and distribution facilities on the MPE site and upgrades to approximately 2.1 Kilometres of Moorebank Avenue.

Key components of the Project include:

- Earthworks including the importation of 600,000m^3 of fill (limited to 22,000m^3 per day) and vegetation clearing
- Importation, stockpiling and placement of up to 250,000 m^3 of suitable spoil (separate to the 600,000 m^3 of imported clean general fill permitted for bulk earthworks)
- Approximately 300,000m^2 GFA of warehousing and ancillary offices
- Warehouse fit-out
- Freight village, 8,000m^2 GFA of ancillary retail, commercial and light industrial land uses
- Internal road network and hardstand across the site
- Ancillary supporting infrastructure within the site, including:
  - Stormwater, drainage and flooding infrastructure
  - Utilities relocation/installation
  - Fencing, signage, lighting, remediation, and landscaping
- Moorebank Avenue upgrade including:

  - Raising by about two metres and some widening
  - Embankments and tie-ins to existing Moorebank Avenue road levels
  - Signalling and intersection works
- Intersection upgrades along Moorebank Avenue, including:
  - Moorebank Avenue/MPE Stage 2 access
  - Moorebank Avenue/MPE Stage 1 northern access
  - Moorebank Avenue/MPE Stage 2 central access
  - Moorebank Precinct West (MPW) Southern Access / MPE Stage 2 southern emergency access.

The location of the Project site is shown in Figure 1-1.

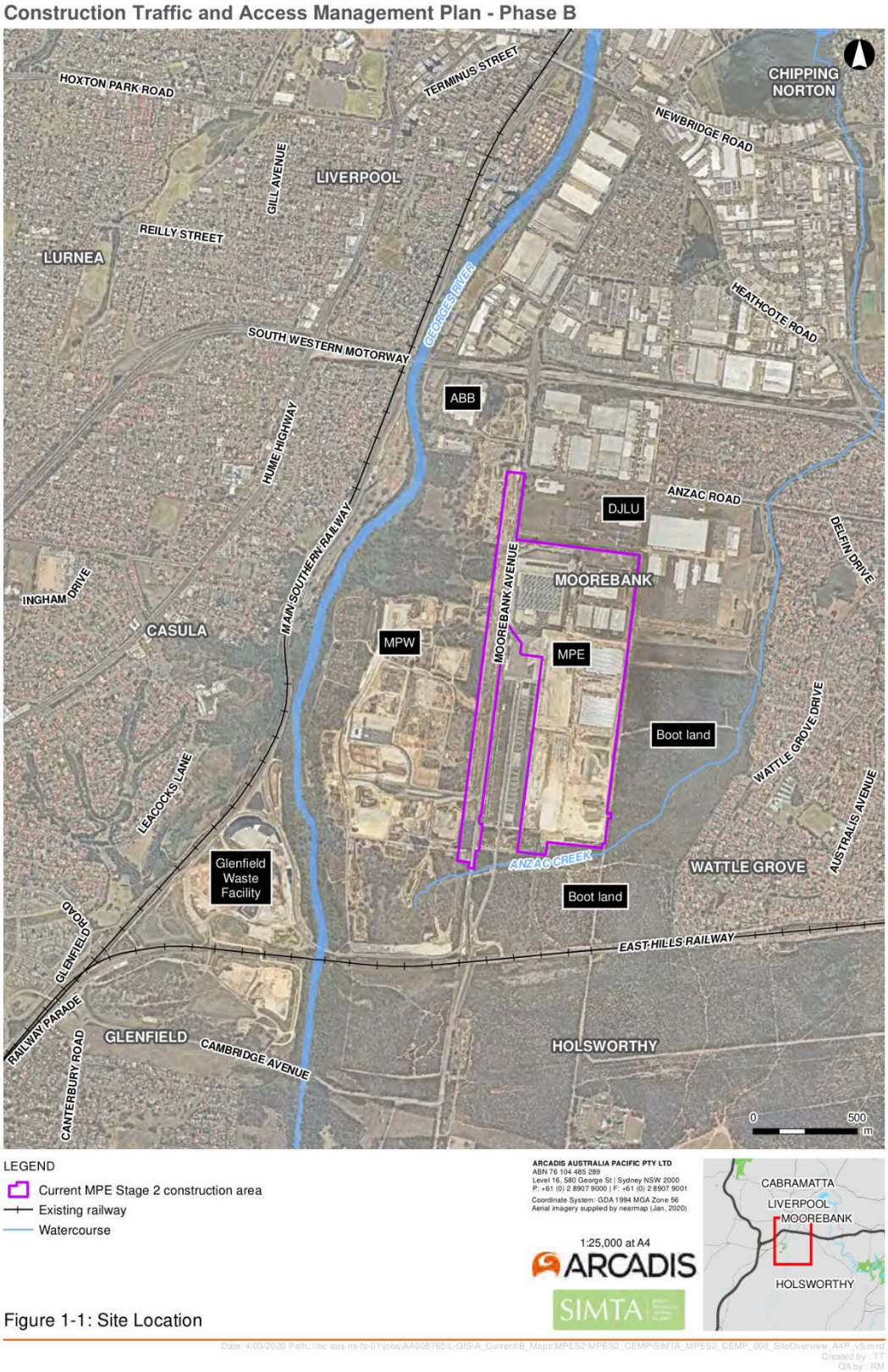


Figure 1-1: Site Location

Figure 1-1 Site location

1.2 Development Consent

The Project has been assessed by Department of Planning and Environment (DP&E) under Part 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as a State significant development (SSD). The Planning Assessment Commission (PAC) granted Approval for the Project on 31 January 2018 and is subject to the Minister's CoCs (ref SSD 7628). The Project has subsequently been modified and approved under Modification 2 (SSD 7628-Mod 2) on 31 January 2020. The Project, including its potential impacts, consultation and proposed mitigation and management, is documented in the following suite of documents:

- State significant development (SSD) consent SSD 7628, as modified
- SSD partial consent (subdivision) SSD 7628, as modified
- Moorebank Precinct East – Stage 2 – Environmental Impact Statement (Arcadis Australia Pacific Pty Limited, December 2016)
- Moorebank Precinct East – Stage 2 Proposal – Construction Traffic Impact Assessment (CTIA) (Arcadis Australia Pacific Limited, December 2016)
- Moorebank Precinct East – Stage 2 – Preliminary Construction Traffic Management Plan (PCTMP) (Arcadis Australia Pacific Limited, November 2016)
- Moorebank Precinct East – Stage 2 – Response to Submissions (RtS) (Arcadis Australia Pacific Pty Limited, July 2017)
- Consolidated assessment clarification responses issued on 10 November 2017 (Arcadis 2017).
- MPE *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Approval (No. 2011/6229) granted on March 2014
- MPW *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Approval (No. 2011/6086) granted on September 2016 (for Moorebank Avenue Upgrade Works only)
- Moorebank Precinct East – Stage 2 (Modification 2) – Environmental Impact Statement SSD 7628-Mod 2 (Aspect Environmental Pty Limited, July 2019)
- Moorebank Precinct East – Stage 2 (Modification 2) – Response to Submissions SSD 7628-Mod 2 (Aspect Environmental Pty Limited, September 2019)
- Moorebank Precinct East – Stage 2 (Modification 3) – Environmental Impact Statement SSD 7628-Mod 3 (Aspect Environmental Pty Limited, June 2020)
- Moorebank Precinct East – Stage 2 (Modification 3) – Response to Submissions SSD 7628-Mod 3 (Aspect Environmental Pty Limited, August 2020)
- Moorebank Precinct East – Stage 2 (Modification 4) – Environmental Impact Statement SSD 7628-Mod 4 (Aspect Environmental Pty Limited, October 2020)
- Moorebank Precinct East – Stage 2 (Modification 1) – Environmental Impact Statement SSD 7628-Mod 1 (Aspect Environmental Pty Limited, September 2018)
- Moorebank Precinct East – Stage 2 (Modification 1) – Response to Submissions SSD 7628-Mod 1 (Aspect Environmental Pty Limited, April 2019)

1.3 Project Delivery Phases

The Project construction period is anticipated to be approximately five years, which will be generally divided into three works phases, as detailed in the following sections.

The terminology for the project phases or periods has developed from the preparation of the EIS and RtS documentation in response to the language of the CoCs and the need to stage the delivery of the environmental management documentation required by the CoC. Current terminology, and the equivalent terminology from the CoC and RtS are included in Table 1.

Table 1 Project Delivery Phase Terminology

Project Delivery Phase	CoC A18 Phase Equivalent	MPE Stage 2 RtS Works Period Equivalent
Early Works	Early Works Fill importation (to 60,000m^3)	Works Period A: Pre-construction Works Period B: Site preparation
Construction Phase A	Fill importation Construction	Works Period B: Site preparation Works Period E: Bulk earthworks, drainage and utilities Works Period F: Construction and internal fit out of warehousing Works Period G: Miscellaneous construction works
Construction Phase B	Fill importation Construction	Works Period C: Construction of Moorebank Avenue Diversion Road Works Period D: Pavement and intersection works along Moorebank Avenue Works Period E: Bulk earthworks, drainage and utilities

1.3.1 Early Works

Early Works is generally described as site preparatory works including utilities adjustments and relocations, clearing and stripping of topsoil (top 100mm of topsoil), heritage salvage and fill importation (including VENM and ENM, up to 60,000m^3), establishment of site access, temporary fencing and compound establishment, asbestos and hazardous material removal and the preparation of demolition of buildings.

The Early Works throughout the MPE Stage 2 construction area includes but is not limited to:

- Geotechnical utilities investigation works including potholing to confirm the location of existing services, disconnection of non-critical services (with retention in place), grout filling of disconnected drainage lines, and adjustment and relocation where applicable
- Clearing of non-native vegetation, stripping of topsoil and stockpiling of topsoil on site for later re-use within site landscaping
- Stabilisation of areas where topsoil has been stripped with imported clean hard fill or by other methods determined by the Environmental Representative to have minimal environmental impact
- Removal of asbestos from heating equipment and fire-resistant building elements (e.g. fire doors) by a licenced asbestos removalist followed by clearance by a certified occupational hygienist
- Hazardous material cleaning and decontamination in Buildings 67, 69, 81 and 83
- Heritage salvage works in Buildings 37, 75 and 80 on the Project site to recover architectural elements for adaptive re-use
- Importation, stockpiling and placement of up to 60,000 m^3 (not exceeding a total of 22,000 m^3 of material per day) of imported clean general fill material by truck-and-dog and / or semi-trailer
- Establishment of a site access point at the existing MPE site northern access and construction of associated access road, utilising existing paved areas with minor pavement extensions, as required to provide for access and manoeuvrability of vehicles into and through the site in accordance with CoC B10
- Establishment of temporary site fencing, a site compound(s) and temporary car parking areas to support Early Works and construction of the Project in accordance with CoC B10, B11 and B12
- Other activities determined by the Environmental Representative to have minimal environmental impact.

Any of the activities defined in SSD Consent 7628 as 'Early Works' may be undertaken during the Early Works. All works during Early Works will be undertaken in accordance with the Early Works Management Plan (EWEMP) and required sub-plans.

Upon the commencement of construction, the Project's CEMP will supersede the EWEMP.

1.3.2 Construction Works Phase A (excluding Moorebank Avenue Upgrade Works)

Construction Works Phase A will include all works described in Early Works in addition to bulk earthworks, drainage and utilities, construction and internal fit-out of warehousing and finishing works.

Construction Works Phase A excludes Moorebank Avenue works described in Section 1.3.3. Construction Works Phase A includes, but is not limited to:

Completion of Site Preparation Activities

- Demolition of existing structures
- Clearing of remaining vegetation
- Adjusting the building formation of the site (to final operational levels) within which the Warehousing Compound will be located
- Establishment of temporary batch plant and materials crushing plant

Bulk Earthworks, Drainage and Utilities

- Importation, stockpiling and placement of up to a total of 600,000 m^3 (including the volume imported during Early Works) of imported clean general fill for bulk earthworks
- Importation, stockpiling and placement of up to 250,000 m^3 of suitable spoil (separate to the 600,000 m^3 of imported clean general fill permitted for bulk earthworks)
- Installation of on-site detention (OSD) and drainage infrastructure within the MPE Stage 2 site
- Construction of retaining walls
- Creation of internal road formation by general earthworks (by constructing fill embankments)
- Bulk earthworks and adjusting the building formation of the Project site to final level, including the terminal hardstand
- Utilities relocation and installation
- Establishment of hardstand areas.

Construction and Internal Fit-out of Warehousing

- Foundation and floor slab installation
- Erection of framework and structural walls
- Installation of roof
- Internal fit-out of warehouses (racking and associated services).

Miscellaneous Construction and Finishing Works

- Pavement construction (internal transfer roads and perimeter road), including forming of new kerbs, gutters, medians (where required) and other structures
- Line marking, lighting and sign posting
- Installation of road furniture, including traffic signs and pavement markers.
- Miscellaneous structural construction
- Finishing works, including landscaping and general site rehabilitation, where required
- Commissioning of the Project
- Decommissioning / demobilisation of the Project site, including removal of construction compound(s) and temporary construction environmental controls.

1.3.3 Construction Works Phase B (all Construction Activities)

Construction Works Phase B will include all works described in Early Works Phase and Construction Works Phase A, in addition to the Moorebank Avenue upgrade works. Generally, the Moorebank Avenue upgrade works are described as construction of the Moorebank Avenue Diversion Road, bulk earthworks, drainage and utilities, and pavement works.

Construction Works Phase B includes, but is not limited to:

Construction of the Moorebank Avenue Diversion Road

- Stripping of topsoil within footprint of temporary diversion road
- Installation of temporary drainage
- Placement of fill and temporary road pavement (e.g. gravel)
- Construction of interface between temporary diversion road and existing Moorebank Avenue
- Installation of temporary road signage, street lighting and signalling
- Transfer of traffic onto temporary diversion road from Moorebank Avenue.

Bulk Earthworks, Drainage and Utilities for Moorebank Avenue

- Removal of existing pavement and stripping of topsoil within Moorebank Avenue
- Importation, stockpiling and placement of up to a total of 600,000 m^3 (including the volume imported during the previous phases) of imported clean general fill for bulk earthworks
- Importation, stockpiling and placement of up to 250,000 m^3 of suitable spoil (separate to the 600,000 m^3 of imported clean general fill permitted for bulk earthworks)
- Creation of a road formation for Moorebank Avenue and the Moorebank Avenue Diversion Road by general earthworks (by constructing fill embankments)
- Installation of on-site detention (OSD) and drainage infrastructure associated with MAUW
- Utilities relocation and installation

Pavement Works Along Moorebank Avenue

- Placement of select layer of earthworks material on top of the road formation
- Placing and compacting the pavement layer (concrete, or concrete and asphalt) over the select layer (consisting of a sub-base and base) and bitumen sealing as required to suit the various pavement designs.
- Where specified, a pavement constructed out of compacted gravel (roadbase) will be used in lieu of concrete sub-base and base
- Traffic switching from diversion road onto final, upgraded Moorebank Avenue
- Removal of construction traffic management and progressive opening of the internal road and warehouse access roads to traffic
- Removal of road surface, road signage, street lighting and signalling from temporary diversion road
- Commissioning of Moorebank Avenue.

1.4 Purpose and Application

This CTAMP has been developed to address the Minister's CoCs and the Final Compilation of Mitigation Measures (FCMMs) and is based upon the CTIA (Arcadis 2016), PCTMP (Arcadis, 2016a), Early Works Traffic and Access Management Plan (EWTAMP) and CTAMP Phase A. Pertinently, this CTAMP has been prepared to satisfy the Minister's CoC B2. The specific requirements of the CoCs for compilation of the CTAMP, as identified in the CoCs and FCMMs, are identified in Section 2.1.1. This CTAMP-B addresses all traffic impacts associated with the Project including the MPE Site and Moorebank Avenue Upgrade Works and is designed to incorporate the EWTAMP and CTAMP-A and supersede them.

The purpose of this CTAMP is to describe how vehicular, cyclist and pedestrian traffic and access will be managed during construction and provides methods to monitor and reduce impact to traffic and access during the construction period.

This CTAMP provides a structured approach to manage traffic and road safety issues for the duration of the Project's construction activities to provide a safe road environment, minimise impact on the surrounding road network and maintain access for all road users and the local community.

Specifically, the purpose of this CTAMP is to:

- Manage traffic and access in accordance with the Project approval documents
- Review and consider the CTIA (refer to Appendix K of EIS) during construction
- Minimise impacts to traffic and access during construction
- Provide a safe environment for vehicular, pedestrian and cyclist movements at all times during construction
- Maintain accessibility for the local community and public transport services
- Provide regular information to road users and local communities regarding any changed traffic conditions.

The most recent, approved version of this CTAMP-B will be implemented to manage the Project activities.

1.5 Staged Submission of this Plan

Subject to the approval of the Secretary (CoC A14), the Project has elected to stage the submission of a number of strategies, plans and programs that are required by the CoCs based on the Delivery Works Phases (for a detailed description of the relevant phase, refer to Section 1.3 of the CEMP) identified in Table 2.

In accordance with CoC A15, Table 2 identifies the stage of the development to which this document applies, and the relationship between any future stage. The trigger for updating the document is also identified in Table 2. When a document is updated, the most recent version of the document will supersede the previous version(s).

Table 2 Staged documentation and triggers to satisfy CoC A15

Delivery Works Phases	General Description of Works	Current Document	Trigger to Update Document
Early Works			
Early Works	Utilities adjustments and relocations, clearing and stripping of topsoil, heritage salvage, fill importation, establishment of site access, temporary fencing and compound establishment, asbestos and hazardous material removal and demolition of buildings	☐ Document prepared to address Early Works only	N/A – This document has been updated for this CTAMP
Northwest Priority Area			
Northwest Priority Area	Site establishment and installation of erosion and sediment controls, clearing of non-native vegetation, remediation, removal of existing pavements, utilities disconnection, adjustment and relocation, demolition of buildings including those containing asbestos, and the importation, stockpiling and placement of spoil	DP&E Approval Letter for Northwest Priority Works dated 29 March 2018 indicates relevant controls from the EWTAMP are applicable to the Northwest Limited Works Stage.	N/A – This document has been updated for this CTAMP.
Construction			
Construction Phase A	Early Works activities, bulk earth works, drainage and utilities, construction and internal fit-out of warehousing and finishing works	☐ Document prepared to address Construction Works Phase A only (does not address Moorebank Avenue upgrade works)	Prior to the commencement of construction
Construction Phase B	Construction Phase A activities, construction of the Moorebank Avenue Diversion Road, bulk earthworks, drainage and utilities and pavement works	☒ Document prepared to address all construction works (Phase A + Phase B)	Prior to the commencement of Moorebank Avenue upgrade works

1.6 Objectives and Targets

The following high-level objectives and targets are set for the Project for the management of traffic and access impacts associated with the Project (refer to Table 3). These objectives and targets were developed in consultation with the Proponent, technical specialists and the Project Representative, based on collective industry experience and best practice. Objectives and targets are also derived from the MPW Traffic, Transport and Access Provisional Environmental Management Framework in accordance with MPW EPBC Approval for the construction of the Moorebank Avenue upgrade works (outlined in Section 0).

Table 3 Objectives and Targets

Objective	Target	Indicator	Timeframe	Accountability
Minimise impact to the environment by implementation of management measures	Zero environmental incidents associated with traffic and access	Number of environmental incidents relating to traffic and access	Duration of Construction	Contractor's CM

Objective	Target	Indicator	Timeframe	Accountability
Provide a safe environment for road users through: Implementation of traffic controls and isolation of work site hazards that comply with the best practice, Roads and Maritime requirements/guides and the Australian Standard/s	No death or injury to workers and the public as a result of traffic incidents	Number of safety incidents relating to traffic and access	Duration of Construction	Contractor's CM
Minimise disruption to traffic operation, road users, pedestrians, cyclists and access to adjoining properties (private and public) through: Maintaining the road network functionality Provide an adequate level of signage and community notification is in place where changes to existing road access conditions prevail	No traffic related infringements or penalties	Number of community complaints relating to traffic and access	Duration of Construction	Contractor's CM
Establish and maintain awareness of the importance of ensuring impacts associated with traffic, transport and access associated with the Project are minimized.	All Project and workforce personnel to complete an environmental induction, which will include information on the importance of minimising traffic, transport and access impacts.	Number and percentage of personnel that have attended site induction	Duration of Construction	Contractor's CM
Ensure that any change to road or pedestrian access does not adversely affect the ability of emergency services to respond to any incident	Emergency access review included in all daily inspections and toolbox meetings	Number of incidents relating to emergency vehicle access to the site or adjacent properties	Duration of Construction	Contractor's CM
Minimise complaints by implementation of the management measures in this plan	Response to traffic related complaints in a timely manner, as outlined in the Community Communication Strategy	Number of community complaints relating to traffic and access	Duration of Construction	Contractor's CM Contractor's CLM
Compliance with Road Occupancy Licence (ROL) conditions (if ROL required Refer to Section 2.2.1 below)	Zero non-compliances	Number of non-compliances relating to ROL conditions	Duration of Construction	Contractor's CM

1.7 Consultation

CTAMP-A which precedes CTAMP-B (this plan) was prepared in consultation with Liverpool Council, TfNSW and RMS as outlined in Table 4. The comments from agencies on CTAMP-A have been incorporated into this CTAMP-B document where relevant.

CTAMP-B has also been prepared in consultation with Liverpool Council, TfNSW and Roads and Maritime, as outlined in Table 4. Supplementary information to support consultation undertaken is included in Appendix A.

Table 4 Consultation Summary – CTAMP-A and B

Agency	Date	Person contacted	Comment	Status
CTAMP-A				
Transport for New South Wales	08/03/2018	TfNSW representative	Draft plan emailed for review and comment.	Open
	28/03/18	TfNSW representative	Phone call made to TfNSW representative requesting updated of progress of review.	Open
Roads and Maritime	08/03/18	RMS representative	Draft plan emailed for review and comment.	Open
	28/03/18	RMS representative	Phone message left on voicemail. Email sent to follow up of progress of review.	Open
	06/04/18	RMS representative	Email sent to follow up progress of review.	Open
	06/04/18	SIMTA representative	Email sent indicating that responses from the Transport cluster are being consolidated. Comments expected to be received 11/04/18.	Open
	12/04/18	SIMTA representative	Email received detailing Roads and Maritime review comments	Closed.
Liverpool City Council	08/03/18	LCC representative	Draft plan emailed for review and comment	Open
	13/03/18	LCC representative	Phone call requesting an update on progress of review	Open
	19/03/18	LCC representative	Email sent requesting an update on progress of review	Open
	28/03/18	LCC representative	Phone message left on voicemail to follow up progress of review. Email follow up sent.	Open
	28/03/18	SIMTA representative	Email sent indicating comments would be received within the week.	Open
	05/04/18	SIMTA representative	Email sent indicating that a LCC representative would check and	Open

Agency	Date	Person contacted	Comment	Status
			provide an update of progress of comments.	
	08/05/18	LCC representative	Email sent noting no feedback has been received from LCC after they were sent the CTAMP on 8 March. A document showing changes between the EWTAMP and CTAMP was provided.	Open
	08/06/18	LCC representative	Email sent attaching email from 08/05/18 that included final version of the CTAMP and document comparing approved EWTAMP and CTAMP. Indicated that two SIMTA representatives were available for a meeting.	Open
	12/06/18	LCC representative	Phone call requesting update on progress of review. Voicemail left and email follow up sent. Indicated that two SIMTA representatives were available for a meeting.	Open
	12/06/18	SIMTA representative	Email sent providing feedback on the CTAMP.	Closed
Campbelltown City Council	08/03/18	CCC representative	Draft plan emailed for review and comment.	Open
	08/03/18	CCC representative	Phone message left on voicemail	Open
	19/03/18	CCC representative	Email sent requesting an update of progress of review	Open
	28/03/18	CCC representative	Phone call requesting update on progress of CTAMP review. CCC representative noted that comments were provided by email on 22/03/18. It was noted that these comments were provided in response to an email regarding the EWTAMP, but were in response to the for the CTAMP.	Closed.
CTAMP-B				
Transport for New South Wales	26/03/19	TfNSW representative	Draft plan emailed for review and requesting who the appropriate contact would be.	Open
	11/04/19	TfNSW representative	Phone call and email requesting an update on review of CTAMP-B.	Open
	18/04/19	TfNSW representative	Phone message left on voicemail. Email sent to follow up progress of review.	Open

Agency	Date	Person contacted	Comment	Status
	29/04/19	TfNSW representative	Phone message left on voicemail. Email sent to follow up progress of review.	Open
	29/04/19	SIMTA representative	Phone call informing SIMTA representative that CTAMP-B has been issued internally for review / comment. Aim to send comments back to Qube by 10/05/2019.	Open
	29/04/19	TfNSW representative	Email confirming the details of conversation undertaken on 29/04/2019 with TfNSW representative.	Open
	03/05/19	TfNSW representative	Phone call indicating that RMS are dealing directly with DP&E and close out of consultation is critical to operation of the Moorebank Logistics Park.	Open
	03/05/19	TfNSW representative	Email confirming the details of conversation undertaken on 03/05/2019 with TfNSW representative.	Open
	04/05/19	TfNSW representative	Email indicating that SIMTA are still awaiting comments on CTAMP-B.	Open
	09/05/19	TfNSW representative	Phone message left on voicemail. Email sent to follow up progress of review.	Open
	10/05/19	Qube representative	Email sent confirming the majority of comments have been received internally. Aim to provide comments to Qube by the middle of w/c 13/05/2019.	Open
	10/05/19	TfNSW representative	Email sent confirming that comments would be received by the middle of w/c 13/05/2019.	Open
	15/05/19	Qube representative	Email sent indicating draft letter is in review with TfNSW executives and will be sent once signed.	Open
	15/05/19	TfNSW representative	Email thanking TfNSW for update.	Open
	16/05/19	Qube representative	Deferred comments on the CTAMP-B to RMS (see Appendix A).	Open
	16/05/19	TfNSW representative	Email sent confirming TfNSW have deferred comments on CTAMP-B to RMS.	Closed

Agency	Date	Person contacted	Comment	Status
Roads and Maritime Services	12/03/19	RMS representative	Draft plan emailed for review and comment.	Open
	26/03/19	RMS representative	Phone message left on voicemail. Email sent providing CTAMP-B for review and comment.	Open
	04/04/19	RMS representative	Email sent following up on the progress of the review of CTAMP-B.	Open
	11/04/19	RMS representative	Phone message left on voicemail. Email sent following up on progress of review of CTAMP-B.	Open
	03/05/19	SIMTA representative	Email sent indicating that comments would be received during w/c 06/05/19.	Open
	04/05/19	RMS representative	Email sent thanking RMS for response.	Open
	09/05/19	RMS representative	Phone call and email sent noting that CTAMP-B comments would be received by 13/05/19.	Open
	15/05/19	SIMTA representative	Email sent providing comments on CTAMP-B.	Open
	06/06/19	RMS representative	Email sent providing responses to RMS comments on CTAMP-B.	Open
	06/06/19	SIMTA representative	Email sent advising SIMTA, that CTAMP-B has been referred to relevant internal departments for comment.	Open
	17/06/19	RMS representative	Phone message left on voicemail. Email sent following up on progress of response to comments on CTAMP-B.	Open
	17/06/19	SIMTA representative	Email sent advising SIMTA would receive comments during w/c 17/06/19.	Open
	24/06/19	RMS representative	Phone message left on voicemail. Email sent following up on progress of responses to comments on CTAMP-B.	Open
	17/07/19	RMS representatives	Meeting with RMS representatives to discuss construction and operational traffic issues.	Open
	15/08/19	RMS representative	Issue of CTAMP—B (Ver H) addressing RMS comments	Open

Agency	Date	Person contacted	Comment	Status
	04/09/19	RMS representative	Meeting with RMS representatives to discuss construction and operational traffic issues.	Open
	13/09/19	SIMTA representative	Issue of RMS comments on CTAMP-B Comments Table (Rev B)	Open
	25/09/19	RMS representative	Issue of CTAMP—B (Ver I) addressing RMS comments	Open
	29/11/19	SIMTA representative	Issue of RMS comments on CTAMP-B (Ver I)	Open
	6/12/19	RMS representative	Issue of CTAMP—B (Ver K) addressing RMS comments. No comments resulted in plan updates. Consultation considered closed.	Closed
Liverpool City Council	26/03/19	LCC representative	Email sent providing CTAMP-B for review and comment	Open
	04/04/19	LCC representative	Phone message left on voicemail. Email sent to follow up progress of review of CTAMP-B.	Open
	04/04/19	SIMTA representative	Email sent directing SIMTA representative to the appropriate contact at LCC.	Open
	05/04/19	LCC representative	Email sent indicating SIMTA representative would follow up with appropriate LCC contact.	Open
	05/04/19	SIMTA representative	Email set indicating CTAMP-B would be sent to the traffic section at LCC.	Open
	11/04/19	LCC representative	Phone message left on voicemail. Email sent to follow up on progress of review of CTAMP-B.	Open
	11/04/19	SIMTA representative	Email sent advising SIMTA representative that LCC are still awaiting internal comments.	Open
	11/04/19	LCC representative	Email sent thanking LCC representative for the update.	Open
	15/04/19	LCC representative	Meeting with LCC and SIMTA representatives to discuss construction and operational traffic issues.	Open
	18/04/19	LCC representative	Email sent indicating that actions from meeting on 15/04/19 are being addressed.	Open

Agency	Date	Person contacted	Comment	Status
	29/04/19	LCC representative	Email sent requesting an update on progress of review and providing an update on actions addressing issues from meeting on 15/04/19.	Open
	10/05/19	LCC representative	Email sent indicating that LCC comments were addressed in an email sent on 29/04/19.	Open
	03/06/19	SIMTA representative	Email sent requesting an update on progress of review	Open
	04/06/19	LCC representative	Email sent confirming that SIMTA have adequately addressed LCC comments.	Open
	04/06/19	SIMTA representative	Email sent confirming that LCC comments would be submitted to SIMTA by 07/06/19.	Open
	06/06/19	SIMTA representative	Email sent providing comments on CTAMP-B.	Open
	07/06/19	LCC representative	Email sent confirming that consultation with LCC is now closed.	Closed
Campbelltown City Council	26/03/19	CCC representative	Draft plan emailed for review and comment.	Open
	02/04/19	SIMTA representative	Email sent indicating CCC understanding that the Project would have a negligible impact on the Campbelltown City LGA.	Open
	02/04/19	CCC representative	Email sent confirming that the Project would have a negligible impact on the Campbelltown City LGA.	Open
	03/04/19	SIMTA representative	Email sent providing feedback on CTAMP.	Closed

2 ENVIRONMENTAL MANAGEMENT

This section outlines the relevant legislation and project requirements that apply to traffic management and identifies additional permits and approvals that may be required during Construction Phase B works.

2.1 Legal and Other Obligations

Table 5 below details the legislation and planning instruments considered during the development of this CTAMP-B.

Table 5 Legislation, Planning Instruments and Guidelines

Legislation	Description	Relevance to this CTAMP
Environmental Planning and Assessment Act 1979	This Act establishes a system of environmental planning and assessment of development proposals for the State.	The Development Consent conditions and obligations are incorporated into this CTAMP-B.
Roads Act 1993	Section 87 of the Roads Act requires the consent of Roads and Maritime for the construction, erection, installation, maintenance, repair, removal or replacement of a traffic control light. Section 138 of the Roads Act establishes a requirement for a Road Occupancy Licence for works on public roads.	Roads and Maritime consent will be required prior to the installation of portable traffic lights at the site access to accommodate the construction vehicle movements and traffic generation. A ROL will be required for works on public roads associated with the Project.
Local Government Act 1993	Approval required from local government for some activities on or adjacent to public roads.	Works adjacent to public roads owned by Council will require approval.
Road Transport Act 2013	Incorporates most of the statutory provisions concerning road users, road transport and the improvement of road safety in NSW.	Drivers transporting goods to and from the Project must comply with the *Road Transport Act* 2013.
Road Rules 2014	Establish a framework for safe and efficient movement of traffic on NSW roads.	Drivers accessing the Project must comply with the Road Rules 2014.
Dangerous Goods (Road and Rail Transport) Regulation 2014	The key sections of this Regulation relevant to the Project include, but are not limited to: • Clause 67: Duty on prime contractors to transport dangerous goods in accordance with the Australian Dangerous Goods code • Part 5: Consignment procedures for dangerous goods • Part 12: Safety equipment	Transport of dangerous goods must be in accordance with the Dangerous Goods (Road and Rail Transport) Regulation 2014

Additional guidelines and standards relating to the management of traffic and access include:

- Roads and Maritime Traffic Control at Worksites Manual Version 4, June 2010
- Roads and Maritime QA Specification G10 – Traffic Management, June 2015
- Roads and Maritime Roads Occupancy Manual, May 2015
- AS 3845:1999 Road Safety Barrier Systems
- AGTM 02-08 Guide to Traffic Management Part 2: Traffic Theory, 2015
- AGTM 06-07 Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings – General, 2017
- AGRD 04-09 Guide to Road Design Part 4: Intersections and Crossings – General, 2009
- AS 1743.3-2009 Traffic control devices for works on roads
- AS 1742 Parts 1 to 14, Manual of Uniform Traffic Devices (as required)

- NSW Centre for Road Safety, NSW Speed Zoning Guidelines Version 3, 2009
- Roads and Maritime Delineation Manual, March 2008
- Roads and Maritime Supplement to Austroads Guide to Road Design
- NSW Government - The Guide to Traffic and Transport Management for Special Events
- NSW Bicycle Guidelines
- Roads and Maritime Traffic Signal Design and Specification SI/TCS/8 Installation and reconstruction of traffic light signals
- Relevant Roads and Maritime Technical Direction and Guide updates.

It is noted that Moorebank Avenue between M5 and Anzac Road is owned and maintained by Liverpool City Council. Moorebank Avenue between Anzac Road and Cambridge Avenue is a private road on Commonwealth land.

2.1.1 Compliance Matrices

2.1.1.1 State Approvals

The Project is being delivered under Part 4, Division 4.1 (now Division 4.7 as of 1 March 2018) of the EP&A Act. The CoCs include requirements to be addressed in this CTAMP-B and delivered during the Project. These requirements and how they are addressed is provided within Table 6.

Table 6 Conditions of Consent

CoC	Requirement	Plan Section	How Addressed
A1	In addition to meeting the specific performance measures and criteria established under this consent all reasonable measures must be implemented to prevent, and if prevention is not reasonable, minimise, any harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.	Section 3 Table 24 Section 4	Section 3 of this CTAMP identifies the management measures to be implemented to prevent and minimise environmental harm. Section 4 sets out the process for monitoring and review of the effectiveness of these measures. Opportunities to further minimise environmental harm will be identified through the ongoing evaluation of environmental management performance and effectiveness of this CTAMP-B.
A15	If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program.	Section 1.5	This CTAMP-B is relevant to Construction Phase A and B works. It supersedes the CTAMP – Phase A (excluding Moorebank Avenue works).
A19	Where conditions of this consent require a document to be prepared in consultation with an identified party, the Applicant must: (a) consult with the relevant party prior to submitting the subject document to the Secretary for approval;	(a) Section 1.7 and Appendix A (b) Section 1.7 and Appendix A (c)(i) Section 1.7 and Appendix A	(a) Section 1.7 and Appendix A demonstrate that a draft of CTAMP-A and then CTAMP-B was sent to relevant agencies including Liverpool City Council, Campbelltown City Council, Roads and Maritime and Transport for NSW prior to submission to the Secretary.

CoC	Requirement	Plan Section	How Addressed
	(b) provide evidence that at least two weeks was provided for the relevant party to comment on the document; and (c) include in the document: (i) details of the consultation undertaken; (ii) a description of how matters raised by those consulted have been resolved to the satisfaction of both the Applicant and the party consulted; and (iii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.	(ii) Section 1.7 and Appendix A (iii) Section 1.7 and Appendix A	(b) Section 1.7 details the date that each agency was contacted and date of response from each agency. Appendix A provides evidence of the consultation between SIMTA and relevant agencies that demonstrates a minimum of two weeks was given to each agency to comment on the plan. (c)(i) Section 1.7 provides details of the consultation undertaken (ii) Section 1.7 and the tables in Appendix A detail issues from agencies and how SIMTA have resolved these issues to the satisfaction of both the agency and SIMTA. (iii) Section 1.7, the tables in Appendix A and evidence of consultation in Appendix A provide details on remaining disagreements between agencies and SIMTA and how these issues have been resolved to the satisfaction of both the agency and SIMTA.
A20	All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits, approvals and consents.	CEMP - Section 2.5.2 Section 2.1	All applicable licences, permits and approvals will be obtained as required. Approvals, permits and licences required for the Project are discussed in the CEMP in Section 2.5.2. An Environmental Protection Licence (EPL) (No 21054) was issued by the EPA on 4 June 2018. The licence applies to the Moorebank Precinct (excluding the MPE Stage 1 Rail Access Land Package (RALP) which has a separate EPL licence (No. 20966)) and authorises > 100,000 – 500,000 tonnes crushing, grinding or separating processing capacity per annum. The licence applies to all other activities carried on at the premises, including road construction.
B2	Prior to the commencement of early works and construction, the Applicant must prepare a **Construction Traffic and Access Management Plan** (CTAMP) to the satisfaction of the Secretary. The Plan must form part of the CEMP required by condition C1 and must:	This CTAMP-B	-
	(a) be prepared by a suitably qualified and experienced person whose appointment has been endorsed by the Secretary;	Noted	CTAMP-A and CTAMP-B have been prepared by Wayne Johnson. Wayne was endorsed by the Secretary as a

CoC	Requirement	Plan Section	How Addressed
			suitably qualified and experienced person on 7 February 2018.
	(b) be prepared in consultation with Council, TfNSW and RMS;	Section 1.7	Consultation with the relevant authorities will be conducted. A summary of consultation undertaken is included in Section 1.7. Evidence of consultation and response to comments is included in Appendix A.
	(c) include details of all transport routes and traffic types to be used for development-related traffic, access and parking arrangements; (i) include a protocol for undertaking dilapidation surveys to assess the existing condition of the transport routes prior to construction works; and (ii) condition of the transport routes following construction works;	Section 3.1 (i) Section 3.3.8, Appendix C (ii) Section 3.3.8, Appendix C	All construction vehicles will use the nominated construction vehicle/ haulage routes to access the Project site. (i) A dilapidation survey will be conducted prior to the works commencing to assess the current condition of the road and describe mechanisms to restore damage that may result due to construction traffic related to the Project. A high-level Dilapidation Survey and Repair Protocol is provided in Appendix C. (ii) a post-construction dilapidation will be conducted to assess the condition of post-construction transport routes. Appendix C provides a further high-level Dilapidation Survey and Repair Protocol.
	(d) include a protocol for the repair of any roads identified in the dilapidation surveys to have been damaged during construction and demolition works;	Appendix C	This is detailed in the Dilapidation Survey and Repair Protocol in Appendix C.
	(e) include details of: (i) staging of construction works; (ii) construction vehicle routes; (iii) heavy vehicle movements associated with spoil and demolition material transport off-site; (iv) construction traffic generation; (v) hours of construction; (vi) parking for workers; and (vii) access arrangements.	(i) Section 1.5 (ii) Section 3.1.5 and 3.1.6 (iii) Section 3.1.5, 3.1.6 and Section 3.2 (iv) Section 3.1.8 (v) Section 3.1.7 (vi) Section 3.2.3 (vii) Section 3.1.5, 3.1.6 and Section 3.2	The relevant construction details are provided in Section 3.1 and 3.2: (i) The staged submission of this CTAMP-B and of construction works is found in Section 1.5. (ii) Construction access routes for proposed construction vehicles are detailed. (iii) The Sections detail heavy vehicle movements and access associated with spoil and demolition material transport off-site. (iv) Construction is anticipated to generate construction traffic (v) Construction hours are defined by the Development Consent. (vi) Details on the anticipated parking for construction workers of the project are outlined (vii) Construction access routes and traffic impacts for

CoC	Requirement	Plan Section	How Addressed
			proposed construction vehicles are detailed.
	(f) include a Heavy Vehicle Route Plan detailing (i) the origin and destination of spoil / fill and demolition material; and (ii) details of the heavy vehicle routes to and from the site within the Campbelltown and Liverpool Local Government Areas (LGAs).	(i) Section 3.1.6 (ii) Section 3.1.6, Section 3.2, Section 3.3.4	Figure 3-3 provides the Heavy Vehicle Route Plan. (i) Fill haulage routes and indicative spoil sources are found in Section 3.1.6 and Figure 3-3 (ii) All drivers will be required to adhere to the nominated construction truck / haulage routes to/from the site via the M5 and Moorebank Avenue.
	(g) include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users including pedestrians / cyclists during construction works, including: (i) temporary traffic controls, including detours and signage; (ii) how two lanes of traffic on Moorebank Avenue will be available at all times during construction (unless otherwise approved by RMS); (iii) temporary traffic controls, including detours and signage; (iv) notifying the local community about development-related traffic impacts; (v) responding to any emergency repair requirements or maintenance during construction; and (vi) a traffic management system for managing oversized vehicles.	(i) Section 3.3, 3.2.6 (ii) Section 3.2.5 3.3.12 (iii) Section 3.3.1 (iv) Section 3.3.10 (v) Section 3.3.12, Appendix C (vi) Section 3.3.12	All construction management measures are detailed in Section 3.3. i) All future TCPs will be developed progressively and approved prior to commencement of the works associated with that TCP. Approval from Roads and Maritime for the installation of portable traffic signals will be obtained prior to their installation. ii) When upgrade works are being undertaken on Moorebank Avenue, two lanes will be maintained on Moorebank Avenue (unless otherwise approved by Roads and Maritime) iii) As above for (i) iv) Liaison with stakeholders is discussed in Section 3.3.10 and further detailed in the Community Communication Strategy v) Section 3.3.12, and in particular measures TA-30 to 32 outline the process for managing traffic incidents. Appendix C includes details on the process for conducting emergency road repairs. vi) Oversize vehicle trips, if required, will be undertaken consistent with Heavy Vehicle National Law and the Roads and Maritime OSOM Vehicle and Load rules. Refer to management measure TA-11 in Section 3.3.12.
	(h) include a driver's code of conduct that requires: (i) compliance with specified travelling speeds; (ii) drivers to adhere to specified transport routes, including no access from Cambridge Avenue; and (iii) drivers to implement safe driving practices.	Appendix B	The Driver's Code of Conduct is provided in Appendix B: (i) Safe driving and behaviour must be complied with by all drivers, with quarterly reviews of compliance to be undertaken and any remedial actions to be carried out as required.

CoC	Requirement	Plan Section	How Addressed
			(ii) Drivers must adhere to the approved nominated routes (iii) Implementing safe driving practices is a responsibility of all drivers.
	(i) include a program to monitor the effectiveness of these measures; and	Section 4.1	Monitoring requirements for this CTAMP are outlined in Section 4.1.
	(j) detail procedures for notifying residents and the community (including local schools), of any potential disruptions to transport routes.	Section 3.3.10	A Community Communication Strategy has been prepared for the Project. A summary of stakeholder communication is provided in Section 3.3.10.
B3	The Applicant must: (a) not commence early works or construction until the Construction Traffic Management Plan required by condition B2 is approved by the Secretary; and (b) carry out the development in accordance with the most recent version of the Construction Traffic Management Plan approved by the Secretary,	(a) Section 1.4 (b) Section 4.6	(a) CTAMP-A was approved by the Secretary on 15 June 2018. No Construction Phase B works will commence until this CTAMP revision is approved by the Secretary. (b) The most recent, approved version of this CTAMP-B will be implemented to manage the Project activities, as stated in Section 1.4.
B4	A Road Occupancy Licence is to be obtained from the Transport Management Centre for any works that may impact on traffic flows on Moorebank Avenue or the adjoining State road network during construction activities.	Section 2.2.1	A Road Occupancy Licence (ROL) will be obtained as required for the Construction Phase B works addressed in this CTAMP.
B5	A construction zone will not be permitted on Moorebank Avenue without the express approval of RMS.	Section 2.2.1	Prior to the establishment of construction zones on Moorebank Avenue, approval will be sought by Roads and Maritime.
B6	All demolition and construction vehicles must be contained wholly within the site and vehicles must enter the site before stopping.	Section 3.1.5 Appendix B	There is adequate space on the internal access road for construction vehicles to park/queue as required. This is shown on Figure 3-2. This will be included as part of the Driver's Code of Conduct and induction.
B7	All vehicles are to enter and leave the site in a forward direction.	Section 3.1.5, Section 3.2.11, Section 3.2.21	Swept path analysis using the largest construction vehicle will be undertaken for all other proposed temporary construction access points along Moorebank Avenue in advance of the works and submitted to RMS or TMC in line with the process outlined in Section 3.1.5. Section 3.3.12 includes management measure TA-25 which addresses this requirement.

CoC	Requirement	Plan Section	How Addressed
B8	All trucks entering or leaving the site with loads must have their loads covered and must not track dirt onto any public road.	Appendix B	This is included in the Driver's Code of Conduct.
B9	Prior to commencement of any importation of site fill, the Applicant must undertake a Road Safety Audit for heavy vehicle movements associated with the importation of fill, for construction vehicle swept paths in and out of the development site via the proposed temporary construction access points along Moorebank Avenue, and for motorists and construction vehicle movements along Moorebank Avenue during the staged road upgrade works identified in condition B13. The Road Safety Audit is to be prepared by an independent TfNSW accredited road safety auditor in accordance with the relevant Austroads guidelines to identify any safety issues. The Road Safety Audit must consider road safety issues for the proposed construction access arrangements and affected vehicle movements during upgrade works on Moorebank Avenue. The Applicant must recommend corrective actions for the identified safety issues and propose appropriate traffic management measures (i.e. temporary traffic signals and other traffic management measures) in consultation and with the approval of the relevant Council, TfNSW and RMS.	Section 3.3.12, TA-28	A Road Safety Audit dated 19/02/18 has been undertaken for CTAMP-A. No corrective actions were identified. The Road Safety Audit will be updated to consider road safety issues for construction vehicle swept paths in and out of site associated with future temporary access points along Moorebank Avenue (Construction Phase B) prior to the commencement of these works. This updated Road Safety Audit will be undertaken as part of the 85% Detailed Design under the Roads and Maritime WAD process.
B10	The swept path of the longest vehicle entering and exiting the subject site, as well as manoeuvrability through the site, must be in accordance with Austroads requirements. Prior to commencement of construction on permanent infrastructure a plan must be submitted to the Secretary and RMS for approval, which shows that the proposed development complies with this requirement.	Section 3.1.5 Appendix E	Swept Path analysis is included as Appendix E to this plan. RMS noted in consultation that evidence of compliance with this condition is required for review and approval as part of the WAD for the temporary diversion road and Moorebank Avenue upgrades. The executed WAD demonstrates that this has been fulfilled.
B13	The Applicant is to undertake the following upgrades, in accordance with the specified timing requirements [refer Table 1: Required Upgrades and Specified Timing Requirements]	Section 1.1 Section 1.3.3 Section 1.5	Moorebank Avenue upgrade requirements are subject to ongoing design development and approval by RMS as part of the WAD process. 100% design approval of the Moorebank Avenue upgrade is subject to ongoing review by the RMS WAD team. The timing for completion of the upgrade will be prior to issue of an Occupation Certificate for warehousing

CoC	Requirement	Plan Section	How Addressed
			in excess of 100,000m^2 of gross floor area
B14	A Works Authorisation Deed(s) (WAD) with RMS is to be executed by the Applicant for the infrastructure listed in condition B13 prior to the issue of the first Occupation Certificate for warehousing.	Section 2.2.1	The RMS WAD process is ongoing and will be executed for the infrastructure listed in condition B13 prior to the issue of the first Occupation Certificate for warehousing.
B15	Traffic Control Signal (TCS) plans must be drawn by a suitably qualified person and endorsed by a suitably qualified practitioner. The designs submitted to RMS must be in accordance with *Austroads Guide to Road Design* in association with relevant RMS supplements (available on www.rms.nsw.gov.au).	Section 2.2.3	Traffic Control Signal (TCS) plans will be prepared by a suitably qualified person, endorsed by a suitably qualified practitioner and be submitted to Roads and Maritime for consideration and approval prior to the commencement of applicable works.
B16	RMS fees for administration, plan checking, civil works inspections and project management must be paid by the Applicant prior to the commencement of works. The Applicant may be required to dedicate land for the maintenance of the traffic control lights. Further details will be included in the WAD process.	Section 2.2.1	RMS fees will be paid in accordance with RMS requirements.
B17	The proposed road upgrade, road raising and widening works by the Applicant along Moorebank Avenue must be designed to meet RMS requirements, and endorsed by a suitably qualified person(s). The design requirements must be in accordance with Austroads guidelines and other Australian Codes of Practice.	Section 2.2.1	Approval of the design of the Moorebank Avenue upgrade works is being managed as part of the RMS WAD process. The RMS WAD process is ongoing and will be executed for the Moorebank Avenue upgrade works listed in condition B13 prior to the issue of the first Occupation Certificate for warehousing.
B19	The Applicant is responsible for all works required by public utility adjustment/relocation works necessitated by the road infrastructure upgrade works and as required by the various public utility authorities and/or their agents.	Section 2.2.1	Approval of the design is being managed as part of the RMS WAD process and in consultation with applicable public utility authorities.
B20	All works / regulatory signposting associated with the road infrastructure upgrades must be approved by RMS	Section 3.3.2	Prior to the commencement of the road infrastructure upgrade works, approval for all works / regulatory signposting will be sought from Roads and Maritime.
B76	Use of compression brakes for construction vehicles associated with the project that are on site or on nearby roads is not permitted (e.g. Anzac Road).	Table 24 Construction Noise and Vibration Management Plan (CNVMP)	Refer to the CNVMP for the details on the use of compression brakes and the management measure outlined in Table 24 of this CTAMP-B.
B77	(h) a truck driver protocol addressing designated routes, acceptable delivery hours, speed limits on site, no engine braking in the vicinity or on site, no extended periods of	Appendix B – Drivers Code of Conduct Figure 3-2	Appendix B and Figure 3-2, and Figure 3-3 address the requirements of this CoC.

CoC	Requirement	Plan Section	How Addressed
	engine idling, avoiding queuing in or around the site and limiting the need for reversing on site	Figure 3-3	
C7	The Applicant must ensure that the environmental management plans required under this consent are prepared in accordance with any relevant guidelines, and include: (a) detailed baseline data;	Section 3	Section 3 details relevant data related to traffic impacts surrounding the Project site.
	(b) a description of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures/criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Section 1.2 Section 2.1 (i) Section 1.6, Table 3 (ii) Section 1.6, Table 3	(i) Section 1.2 provides information on the approvals required for the Project site. Section 2.1 lists the environmental obligations for the Project site. (ii) Section 1.6, Table 3 details the objectives (performance measures/criteria) for the Project. (iii) Section 1.6, Table 3 details the targets (specific performance indicators) for the Project.
	(c) a description of the management measures to be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	Section 3.3.12	Table 24 stipulates the traffic related management measures for the Project.
	(d) a program to monitor and report on the: (i) impacts and environmental performance of the development; and (ii) effectiveness of any management measures (see (c) above);	(i) Section 4.1 (ii) Section 4.6	(i) Program on monitoring and reporting of impacts and environmental performance is discussed under Section 4.1. (ii) Section 4.6 states ongoing evaluation on performance and effectiveness will be undertaken against policies, objectives and targets identified in Section 1.6 of this plan.
	(e) a contingency plan to manage any unpredicted impacts and their consequences;	Table 24, TA-30 to TA-36 Appendix C	These management measures detail requirements to be undertaken in the event of a traffic incident response such as an accident, spillage, or flooding, or in the event of unpredicted impacts. Appendix C includes details on the process for conducting emergency road repairs.
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 4.6	Review and improvement of this CTAMP-B will be undertaken annually and periodically in accordance with Section 4.5 of the CEMP as discussed under Section 4.6 of this CTAMP-B.
	(g) a protocol for managing and reporting any: (i) incidents and non-compliances; (ii) complaints; (iii) non-compliances with statutory requirements; and	Refer to next column	(i) Managing and reporting for incidents will be undertaken in accordance with CEMP Section 2.8. (ii) Complaints will be managed in accordance with the Community Communication Strategy.

CoC	Requirement	Plan Section	How Addressed
			(iii) Non-conformances will be undertaken in accordance with CEMP Section 4.4.
	(h) a protocol for periodic review of the plan.	Section 4.6	Section 4.6 of this CTAMP-B outlines the requirement for review of this plan. Further detail is provided within the CEMP Section 4.5.

The Final Compilation of Mitigation Measures (FCMMs) were prepared as part of the MPE Stage 2 Submissions Report (Arcadis 2017). A list of the FCMMs as relevant to the Project and how they have been complied with in this CTAMP-B are provided in

Table 7 Final Compilation of Mitigation Measures (FCMM)

FCMM	Requirement	Document Reference
0B	The Construction Environmental Management Plan (CEMP), or equivalent, for the Amended Proposal will be based on the PCEMP (Appendix G of the EIS), and include the following preliminary management plans: • Preliminary Construction Traffic Management Plan (PCTMP) (Appendix K of the EIS) … As a minimum, the CEMP will include the following sub-plans: • Construction Traffic Management Plan (CTMP) …	This CTAMP-B
1A	A Construction Traffic Management Plan (CTMP) will be prepared, based on the PCTMP prepared as part of the EIS (refer to Appendix K of the EIS). The CTMP will detail the management controls to be implemented to avoid, minimise and mitigate impacts of construction of the Amended Proposal to traffic performance on the surrounding road network, pedestrian and cyclist access, and the amenity of the surrounding environment and will include the following key initiatives:	This CTAMP-B satisfies this condition for Construction Phase B. This plan supersedes CTAMP – Phase A (refer to Section 1.4)
	• Review of speed restrictions along Moorebank Avenue and additional signposting of speed limitations to reinforce reduced speed limits during construction of the Amended Proposal	Section 2.2.2
	• Restriction of haulage routes through signage and education to ensure, where possible, that construction vehicles do not travel through nearby residential areas to access the Amended construction area, in particular Moorebank (Anzac Road) or the Wattle Grove residential areas	Section 3.2.11
	• Inform local residents (in conjunction with the Community Information and Awareness Strategy) of the proposed construction activities and road access restrictions that the construction traffic must adhere to and establish communication protocols for community feedback on issues relating to construction vehicle driver behaviour and construction related matters	Section 3.3.10
	• Installation of specific warning signs on approach to, and at entrances to, the construction site to warn existing road users of entering and exiting construction traffic	Section 3.3.1
	• Establishing pedestrian exclusion zones and walking routes/crossing points which integrate within the existing pedestrian network	Section 3.2.5
	• Distribution of day warning notices to advise local road users of scheduled construction activities and associated traffic movements.	Section 3.3.10
		Section 3.3.1

FCMM	Requirement	Document Reference
	• Installation of appropriate traffic controls and warning signs for areas identified where potential safety risk issues exist	Section 3.3.2
	• The promotion of car-pooling for construction staff and other shared transport initiatives during the construction phase	Section 3.3
	• Management and coordination of the transportation of materials to maximise vehicle loads and therefore minimise vehicle movements	Section 3.3
	• Monitoring of traffic on Moorebank Avenue during peak periods to ensure that queuing at intersections does not impact on other road users	Section 3.3
	• Reducing, where reasonable and feasible, the volumes of construction vehicles travelling during peak periods, especially if the increase in traffic generated by construction activities impedes on the operation of Moorebank Avenue	
1B	A Road Safety Audit on Cambridge Avenue to be undertaken prior to the commencement of the construction of the Amended Proposal to identify the traffic safety risks and determine appropriate mitigations.	Section 3.3.12 FCMM 1B requires a Road Safety Audit to be undertaken on Cambridge Avenue. An audit of the entrance from Moorebank Avenue has also been undertaken and will be provided to DPE for information in accordance with CoC B9.
1C	Moorebank Avenue will be upgraded for approximately 1.5 kilometres from approximately 35 metres south of the northern boundary of the MPE site to approximately 185 metres south of the southern MPE site boundary. The following intersections will also be upgraded as part of the Amended Proposal: • Moorebank Avenue / MPE Stage 2 • Moorebank Avenue / MPE Stage 1 northern access • Moorebank Avenue / MPE Stage 1 central access • Moorebank Avenue / MPE Stage 1 southern emergency access. The funding of these upgrades will be clarified through discussions with SIMTA, Roads and Maritime and Transport for NSW.	The works associated with traffic lights and road upgrade works detailed in CoC B13 are to be designed and delivered at no cost to TfNSW or Roads and Maritime unless otherwise agreed by TfNSW and Roads and Maritime, in accordance with CoC B18.
1G	Importation of fill to site during construction of the Amended Proposal is to not exceed a total of 22,000 m^3 of material per day. This limit is to be further reduced by an amount equivalent to any fill being imported to the MPW Stage 2 Proposal (SSD 7709) on the same day such that the combined importation of fill to the Amended Proposal site and MPW site does not exceed 22,000 m^3 on any given day.	Fill importation will not exceed 22,000 m^3 of material per day in accordance with CoC B56(a). Appendix D – Fill Importation Management Protocol.

2.1.1.2 EPBC Approvals

The EPBC Act approval for the MPE Concept was granted by the Department of the Environment in March 2014 (No. 2011/6229). This approval was provided for the impact of the MPE Project on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act).

The EPBC Act approval for the MPW Concept was granted by the Commonwealth Department of Environment and Energy (DotEE) in September 2016 (No. 2011/6086). This approval was provided for the

impact of the MPW Project on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act).

The Moorebank Avenue upgrade works will be performed under the MPE Stage 2 Consent as described in Section 1.1 and 1.3 of the CEMP. Since the western side of the Moorebank Avenue upgrade works construction footprint is located within the MPW site, the works must comply with the MPW Commonwealth Approval.

The construction and operation of the Project has been designed to be consistent with the EPBC Act Approval conditions, where relevant. EPBC Act Approval conditions for the Project include specific conditions and commitments that are required to be addressed in this CTAMP-B. These conditions are identified within Table 8 along with where they have been addressed in preparing this plan.

Table 8 Commonwealth Conditions of Approval (CCoA)

Commonwealth	Requirement	Document Reference
MPE EPBC Approval (2011/6229)		
7	For the better protection of Commonwealth land, the person taking the action must engage a ***suitably qualified expert(s)*** to prepare a Construction Environment Management Plan (CEMP), for the approval of ***the Minister***. The CEMP must include in relation to construction of the proposed facility:	CEMP
	b) identification and quantification of all potential impacts associated with noise, vibration, air quality, traffic, light spill, hydrological changes, contamination, and indigenous heritage (including cumulative impacts associated with the ***DoF's*** proposed intermodal) upon Commonwealth land. Consideration must be given to people and communities at ***SME, DNSDC,*** Defence housing, and the environment more generally in neighbouring bushland areas. Of note, the air quality assessment must quantify <u>all</u> emissions arising from air pollutant sources for which there are established national air quality standards;	Traffic impacts addressed in Section 3.2 of this CTAMP Note: The School of Military Engineering (SME) and Defence housing have been relocated off the MPW Site to the Holsworthy Barracks and are no longer sensitive receivers to the MPE site. The Defence National Storage and Distribution Centre (DNSDC) formerly occupied the MPE site but relocated this operation to the Defence Joint Logistics Unit (DJLU) immediately north of the MPE Site.
	d) refined details (including implementation timeframes) for the mitigation measures outlined in the ***EIS*** (sections 7.4.2, 7.4.3, 7.4.6, 7.4.7, 7.4.8 and 7.4.9) and summarised at <u>Annexure A</u>.	Traffic mitigation measures addressed in Section 3.1 and Section 3.3.12 of this CTAMP
MPW EPBC Approval (2011/6086)		
5	Sections of the CEMP and OEMP relating to traffic must be prepared by a suitably qualified expert and must: a) be consistent with the Traffic, Transport and Access Provisional Environmental Management Framework (2 July 2014), provided at Appendix 0 to the finalised EIS	The management measures outlined in Section 3.3 are consistent with the Traffic, Transport and Access Provisional Environmental Management Framework.

Commonwealth	Requirement	Document Reference
	b) incorporate all measures 4A to 4Q from Table 7.1 of the finalised EIS that are described as 'mandatory'	Table 9
	c) explain how all measures 4A to 4Q from Table 7.1 of the finalised EIS that are described as 'subject to review' have been addressed	Table 9
	d) be approved by the Minister or a relevant New South Wales regulator.	Revision G of this CTAMP-B was approved by the delegate of the Federal Minister for the Environment and Energy on 27 September 2019.

The Commonwealth mitigation measures which are relevant to this CTAMP-B are detailed in Table 9.

Table 9 Commonwealth Mitigation Measures (CMM)

Issue	Requirement	Timing	Document Reference
MPE EPBC Approval (2011/6229)			
Traffic	A Construction Traffic Management Plan (CTMP) will be implemented prior to and during construction of the SIMTA proposal. Construction material will be sourced from within metropolitan Sydney and delivered to the SIMTA site primarily via the M5 Motorway, Hume Highway, M7 Motorway and Moorebank Avenue. Site access and egress for all construction traffic will be via Moorebank Avenue. Construction site entry is proposed just south of the existing signalised intersection, south of Anzac Avenue to minimise construction traffic impacts upon DNSDC. During later stages of construction, a separate egress point will likely be established to the south of the SIMTA site.	This CTAMP-B	
MPW EPBC Approval (2011/6086)			
4A	The Project team would continue to liaise with the Australian Rail Track Corporation, Transport for NSW and other stakeholders responsible for the management of the rail freight network regarding the capacity of the network related to the project.	Detailed design and future development applications	Not applicable to CTAMP-B
4B	As part of the Stage 2 SSD approval(s) process further analysis would be undertaken to determine likely demand distribution and capacity across the rail freight network as it relates to the project.	Detailed design and future development applications	Not applicable to CTAMP-B
4C	Install a variable message signage system within the Project site to direct heavy vehicles and facilitate safe and efficient access and navigation.	Detailed design, construction and operation	Section 3.3
4D	Consider the provision of pedestrian and cyclist connections from Moorebank Avenue into the Project site.	Detailed design, construction and operation	Section 3.3
4E	Consider the provision of staff storage and shower areas to promote cycling, jogging and walking as modes of transport.	Detailed design, operation	Section 3.3
4F	Negotiate with bus operators for the provision of additional bus stops and increased bus services between the Project site and nearby public transport interchange hubs to reduce the volume of light vehicles	Detailed design	Not applicable to CTAMP-B

Issue	Requirement	Timing	Document Reference
	generated by staff. This would be determined based on staff numbers and likely patronage numbers.		
4G	Undertake detailed design and staging of the Project rail link construction works to ensure: • connection with the Southern Sydney Freight Line (SSFL) is designed to minimise construction impacts on SSFL operations; • connection with the SSFL would allow trains to exit and enter the SSFL main line at a maximum design speed of 45 kilometres per hour (km/h); • trains entering and leaving the Project site endeavour to minimise adverse disruption to other operations on the SSFL; and • the Project's internal train control system and signalling integrates with the SSFL system where required.	Detailed design and construction	Not applicable to CTAMP-B
4H	Prior to all future development application stages, in consultation with Transport for NSW and other relevant agencies of NSW Government, ensure that adequate arrangements are in place to ensure that: 1. The impacts of additional traffic associated with the future development application stages will minimise Project related traffic impacts and consider the capacity of the road network, taking account of background traffic growth and planned road network improvements. 2. Arrangements are in place (irrespective of funding source) for the on-time delivery of the necessary road network improvements referred to in point 1 above. The contribution of MIC towards road network improvements as envisaged by this mitigation measure would be subject to the following conditions: • That certain throughput levels at the terminal had been achieved. These throughputs are outlined in column 1 of Table 7.20 of the Response to Submissions report. • That it can be further demonstrated (as part of any subsequent planning approval stage) that the intersection performance would have deteriorated to a Level of Service E or worse (where previously operating at a LoS D or above) were it not for the implementation of the upgrades outlined in Table 7.20 of the Response to Submissions report.	Future development applications	Not applicable to CTAMP-B
4I	Reducing the volumes of construction vehicles travelling during peak periods, especially if the increase in traffic generated by construction activities impedes on the operation of Moorebank Avenue.	Early Works and construction	Section 3.3
4J	Maintain access to neighbouring properties. It is particularly important that the ABB site has access throughout the construction stages.	Early Works and construction	Section 3.2.6 and TA-29

Issue	Requirement	Timing	Document Reference
4K	In addition to the Community Engagement Plan (or equivalent) (Refer to 2A), a communication plan will be developed to provide information to the relevant authorities and bus operators in addition to the local community. The communication plan will need to incorporate a contact list with the chain of command.	Early Works, construction and operation	Section 3.3.10 and TA-01
4L	Implement relevant traffic control measures to inform drivers of the construction activities and locations of heavy vehicle access locations.	Early Works and construction	TA-07
4M	Obtain Road Occupancy Licences (ROLs) as necessary.	construction	Section 2.2.1 and TA-03
4N	Develop an emergency response plan for the modification of Moorebank Avenue. During this phase, emergency vehicles using Moorebank Avenue as a transport route would need to be considered, as well as emergency access to adjoining properties.	Construction of the modification to Moorebank Avenue	Section 3.3.11
4O	Traffic on Moorebank Avenue would be monitored during peak periods to ensure that queuing at intersections does not impact on other road users.	Early works	TA-18
4P	Modify access locations in response to the development of the Moorebank Avenue modification.	Construction of the modification to Moorebank Avenue	Section 1.3.2
4Q	Provision of alternate suitable pedestrian and cycle and facilities during the construction of Moorebank Avenue modifications retaining well defined and well signed routes and paths.	Construction of the modification to Moorebank Avenue	Section 3.3

The MPE Concept Plan was originally approved on 14 September 2011. The most recent modification to the approval was granted on 31 January 2018 subject to the (modified) Conditions of Approval (CoA). Concept Plan CoAs relevant to this plan are identified in Table 10.

Table 10 Concept Plan Conditions of Approval

CPCoA	Requirement	Document Reference
Best Practice Review – Traffic and Transport	Any future Development Application shall include a Traffic Impact Assessment that assesses intersection and road network impacts, including impacts on Cambridge Avenue. The traffic assessment shall:	Construction related impacts for the Project are addressed in relevant sections of this CTAMP
	a) undertake detailed model analysis commensurate with the stage, to confirm network operation and identify intersection upgrade requirements;	Required road upgrades and associated timing is identified by CoC B13.
	b) consider the constructability constraints of proposed upgrade(s) at key intersections, such as vehicle sweep paths, geometry and sight lines;	Road upgrades to be the subject of a Works Authorisation Deed with Roads and Maritime.
	c) assess construction traffic impacts, including:	
	i. the identification of routes and the nature of existing traffic on these routes	Section 3.1.6 and Section 3.1.7 detail construction access and fill haulage routes. The impact of these routes on the nature of existing traffic is found in Section 3.2.
	ii. an assessment of construction traffic volumes (including spoil haulage/delivery of materials and equipment to the road corridor and ancillary facilities); and	Details on construction traffic volume is found in Section 3.

CPCoA	Requirement	Document Reference
	iii. potential impacts to the regional and local road network (including safety and level of service) and potential disruption to existing public transport services and access to properties and businesses.	Detailed potential traffic impacts are detailed in Section 3.2.
	d) assess operational traffic and transport impacts to the local and regional road network, including:	Further consideration and monitoring to occur as part of the Operational Traffic and Access Management Plan (CoC B26) and the associated Biannual Trip Origin and Destination Report.
	i. changes to local road connectivity and impacts on local traffic arrangements, road capacity/safety;	
	ii. traffic capacity of the road network and its ability to cater for predicted future growth and	
	iii. monitoring of vehicle numbers on Cambridge Avenue.	
	e) provide an updated Traffic Management and Accessibility Plan including:	This CTAMP-B
	i. measures to prevent heavy vehicles accessing residential streets to maintain the residential amenity of the local community	Section 3.1
	ii. public transport;	Section 3.2.4
	iii. cyclist facilities; and	Section 3.2.5
	iv. driver code of conduct.	Section 3.3.4
	In particular, the Traffic Impact Assessment must identify upgrades and other mitigation measures required to achieve the objective of not exceeding the capacity of the following intersections and roads –	Required road upgrades and associated timing is identified by CoC B13.
	(a) Moorebank Avenue/ Newbridge Road	Section 3.3.12
	(b) Moorebank Ave/ Heathcote Road	Section 3.3.12
	(c) Cambridge Ave	Section 3.3.12
	(d) M5 Motorway/ Moorebank Avenue	Section 3.3.12
	(e) M5 Motorway/ Heathcote Road	Section 3.3.12
	(f) M5 Motorway/ Hume Highway.	Section 3.3.12

The Revised Statement of Commitments (RSoC) includes the most recent compilation of SIMTA commitments to mitigate the environmental impacts, monitor the environmental performance and/or achieve a positive environmentally sustainable outcome. These RSoCs (June 2017) were presented in the Moorebank Precinct East – Concept Plan Modification 2 Response to Submissions. The RSoC that are relevant to this plan are identified in Table 11.

Table 11 Revised Statement of Commitments (RSoC)

RSoC	Requirement	Document Reference
Traffic and Access	The Proponent commits to developing a Construction Traffic Management Plan to minimise the potential impacts of the construction stage(s), including: • Heavy vehicle access routes • Location of construction worker parking • Mitigation measures to avoid any unacceptable impacts on the surrounding land uses. Mitigation measures to avoid any unacceptable impacts on regular bus services and school bus services operating on roads within the vicinity of the site and pedestrian and cyclist access.	This CTAMP-B Section 3

No Infrastructure Sustainability Council of Australia (ISCA) requirements relate to the management of construction traffic for the MPE Stage 2 Project.

2.2 Permits and Approvals

2.2.1 Road Occupancy Licence and Road Infrastructure Upgrades

Where feasible, construction will be managed to limit road occupancy and minimise potential impacts on the existing road network. However, where road occupancy cannot be avoided, consultation with Transport Management Centre (TMC) will be undertaken and if required, a Road Occupancy Licence (ROL) will be sought from the TMC, to occupy a portion of the road network for an approved period of time. In accordance with Roads and Maritime QA Specification G10, applications for ROLs will be made at least 10 working days prior to the planned commencement of the activity requiring the ROL.

Three scenarios where road occupancy cannot be avoided and ROLs will be required include:

- Development works within the road reserve and/or any changes to existing infrastructure
- Temporary or permanent installation and/or change of any regulatory traffic control device on a road
- Road closures, occupation of the road network to conduct works, and the associated installation of temporary traffic control devices
- A construction zone will not be permitted on Moorebank Avenue without the express approval of Roads and Maritime, in accordance with CoC B5.

The Roads Act requires the consent of Roads and Maritime for the construction, erection, installation, maintenance, repair, removal or replacement of a traffic control light. Further details of the proposed portable traffic lights at the site access will be provided to Roads and Maritime with a request for approval. The portable traffic lights for Phase B will not be installed/operated until approval has been obtained.

The Moorebank Avenue upgrade requirements, required timing for 100% design approval by RMS and required timing for completion of the upgrade as required under CoC B13, are managed under the RMS Works Authorisation Deed (WAD) process required under CoC B14.

In accordance with CoC B16, all fees will be paid to Roads and Maritime as required under the WAD process prior to the commencement of all road infrastructure upgrades listed under CoC B13. Additionally, all road infrastructure upgrades will be designed in accordance with Austroads guidelines and other Australian Codes of Practice as required by CoC B17. Further, in accordance with CoC B19, any public utility adjustments or relocations works necessitated by the road infrastructure upgrade works will be undertaken as part of the MPE Stage 2 project. Requirements of CoC B16, B17 and B19 will be undertaken as part of the Roads and Maritime WAD process.

Traffic Management Plans (TMPs) associated with the activities outlined in CoC B13 should be provided to RMS in line with the WAD process required under CoC B14. TMPs required for all other activities outside of those outlined in CoC B13 will be prepared in accordance with Roads and Maritime QA Specification G10 and submitted at least 20 working days prior to the proposed date of submission for the ROL application for the proposed activity. Should Oversize Overmass (OSOM) vehicles be required appropriate mitigation measures such as traffic control will be identified in the TMP and approved by Roads and Maritime.

In accordance with Roads and Maritime QA Specification G10, TMPs will include Traffic Staging Plans and Temporary Roadway Design Drawings, as applicable.

In addition to the Roads and Maritime QA Specification G10 minimum requirements, the contractor will consider the review time required for the Roads and Maritime Network Operations team. This includes a review of the package of documents detailing elements such as the access arrangements, traffic signal staging and Variable Message Signage strategy that support the TMPs and TCPs.

2.2.2 Speed Zone Authorisation

No changes to existing sign posted speed limits will be implemented during the Project works. As such, no Speed Zone Authorisation (SZA) approvals are currently proposed as part of this CTAMP.

2.2.3 Traffic Control Signal Plans

Temporary Traffic Control Signal (TCS) plans will be required to facilitate the Moorebank Avenue upgrade works as part of the Project. The TCS plans will be drawn by a suitably qualified person and endorsed by a suitably qualified practitioner. The certified copies of the TCS plans and civil design plans will be submitted to the Roads and Maritime for consideration and approval prior to the commencement of any road work.

2.3 Roles and Responsibilities

Key roles and responsibilities associated with this CTAMP are presented in Table 12.

Table 12 Roles and Responsibilities

Roles	Responsibilities
Contractor's Project Manager (Contractor's PM)	• Providing sufficient resources to implement the requirements of this CTAMP • Direct Superintendents and site engineers to ensure traffic management measures are planned in accordance with the Project requirements and all relevant safety regulations and standards. Verify implementation. • Report to the Principal's Representative on forecast traffic movements in accordance with the Fill Importation Management Protocol (Appendix D) • Undertake Traffic Control Inspections as required.
Contractor's Construction Manager (Contractor's CM)	• Oversee the planning, development, implementation, revisions, and approvals with the relevant authorities and stakeholders (where required) of the TMPs and TCPs • Manage and maintain records of the Project's road safety audit process and direct the construction team to implement resultant corrective actions • Oversee the creation and update of site-specific TCPs for construction works for Project • Plan works to manage the importation of material to the Project site to comply with the daily importation restrictions in accordance with the Fill Importation Management Protocol (Appendix D) • Undertake Traffic Control Inspections as required.
Contractor's Environmental Manager (Contractor's EM)	• Monitoring the implementation of this CTAMP, including compliance with relevant CoCs. • Facilitating awareness and giving toolbox talks to site personnel in relation to the requirements of this CTAMP and other plans relevant to traffic management including the CAQMP and the CNVMP.
Superintendents/ Supervisors/ Foremen	• Controlling general day to day site issues with respect to the movement of construction vehicles within the Project construction area • Undertake Traffic Control Inspections as required • Complying fully with applicable requirements of this CTAMP.

Roles	Responsibilities
Contractor's Traffic Engineer	• Create, maintain, apply and manage the ROL and SZA approval process • Undertake the planning, development, implementation, revisions, and approvals with the relevant authorities and stakeholders (where required) of the TMPs and TCPs • Confirming all components of the implemented traffic control plans are relevant to the risks and hazards • Check traffic control devices shown on the traffic control plans are available for use and fit for purpose • Facilitating traffic awareness and giving toolbox talks to site personnel • Hold relevant certifications from Roads and Maritime for the Implementation of Traffic Control Plans and Prepare a Work Zone Management Plan.
Contractor's Traffic Control Personnel	• Conform to traffic control policy, TCPs and procedures • Communicate with road users in accordance with the TCP • Maintain traffic incident reports and report to the Contractor's Traffic Engineer.
Contractor's Community Liaison Manager (Contractor's CLM)	• Logging complaints from members of the public with respect to issues in relation to this CTAMP • Communicate potential traffic impacts to the community and all stakeholders on advice from the Contractor's CM and Contractor's Traffic Engineer.
All Other Personnel	• Complying fully with applicable requirements of this CTAMP • Follow instructions of Contractor's Traffic Control Personnel and Contractor's Traffic Engineer.

2.4 Training

The Construction Contractor will provide all personnel, including employees, and sub-contractors with suitable environmental induction / training to ensure that they are aware of their responsibilities and competent to carry out the work and meet environmental obligations. All personnel will be required to complete a project induction before they are authorised to work on the project.

As a minimum, the induction will include the following:

- Obligations to maintain access to private properties; the efficient and safe ingress and egress of vehicles from site; onsite, offsite and remote parking; minimising idling and queuing in local streets; safe pedestrian and cyclist access through or around worksites to be maintained
- Encouragement of car pooling
- Incident response procedures in the event of an unplanned traffic incident, as outlined in Section 3.2.20
- Adherence to the Fill Importation Traffic Management Protocol (Appendix D) and Driver's Code of Conduct (Appendix B).

Records of all training and induction activities are to be filed in accordance with the document control system.

Drivers of construction vehicles or plant are to be instructed in the following, by their supervisors, and during the induction process, prior to commencing on site:

- All trucks entering site must have their loads covered from the point of origin
- Prior to leaving site covering truck loads is mandatory and when required, tailgates must be swept clean before leaving site
- Trucks to be fitted with tight tailgates
- Vehicles operating onsite to have flashing amber lights attached to roof of cab

- Trucks removing material from site are to brush off any excess material likely to fall off the body or back on site prior to re-entering the haul road or public roads
- All trucks shall be loaded so as not to exceed the legal weight limitations in force at the time, noting weight restrictions of any bridges along designated routes
- Adhere to 20 km/hr on the Project site, unless stated otherwise
- Responsible driving practices are essential and particular care is to be taken in school zones
- Reverse alarms are to be used when reversing onsite
- No use of compression brakes by construction vehicles in the vicinity of the site
- Ensure all loading and unloading of materials and equipment is undertaken with regard to relevant safe works methods statements and any job safety analyses
- Adhere to the Driver's Code of Conduct (Appendix B)
- Adhere to the nominated construction truck and haulage routes for the importation of fill and other construction activities
- Ensure that all fill importation is conducted in accordance with the Fill Importation Traffic Management Protocol (Appendix D).

Toolbox meetings will also be undertaken, as and when required.

Competency training will be provided by the Construction Contractor as required and may include a certification, vocational qualification or a competency assessment.

The Contractor's Traffic Engineer will be required to be qualified, as a minimum, in the Roads and Maritime Prepare a Work Zone Traffic Management Plan course (i.e. hold a current Prepare a Work Zone Traffic Management Plan card) and have recent experience in traffic management on road construction sites of equivalent complexity to the Project.

The Contractor's Traffic Control Personnel will be required to be qualified, as a minimum, as Roads and Maritime Traffic Controllers (i.e. hold a current Traffic Controller card).

3 IMPLEMENTATION

This section details the construction activities associated with Construction Phases A and B works and assesses the traffic and access impacts on intersection performance, car parking, public transport accessibility, local access and emergency vehicles.

3.1 Construction Overview

3.1.1 Construction Program

Construction of the Project is proposed to take up to five years, commencing in the first quarter of 2018. The final construction program will depend on the market demand for warehouses to be constructed on the Project site.

The indicative construction program is shown in Table 13. The construction works have been divided into seven ‘works periods’ which are inter-related and will potentially overlap with other stages of the Project. Subject to confirmation from the Construction Contractor, the order and staging of these construction works periods may change.

Table 13 Indicative Construction Program (revised)

	Construction works period	2018				2019				2020				2021				2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Early Works	Pre-construction Activities																								
	Site Preparation Activities																								
Construction Phase A	Completion of Site Preparation Activities																								
	Bulk earthworks, drainage and utilities																								
	Construction and internal fit-out of warehousing																								
	Miscellaneous construction and finishing works																								
Construction Phase B	Bulk earthworks, drainage and utilities																								
	Construction of the Moorebank Avenue Diversion Road																								
	Pavement and intersection works along Moorebank Avenue																								

Cumulative traffic implications are further assessed in Section 3.2.

3.1.2 Construction Activities

A summary of the indicative construction works and associated activities proposed to be undertaken during Construction Phases A and B are provided in Table 14.

Table 14 Construction Activities to be undertaken during Construction Phases A and B on the Project Site

Construction Works Period	Activity
Completion of Site preparation activities	• Demolition of existing structures • Decommissioning of redundant services on both sides of Moorebank Avenue • Clearing of vegetation • Clearing and grubbing along both sides of Moorebank Avenue • Adjusting the building formation of the site (to final operational levels) within which the Main Warehousing Compound will be located • Installation of site compounds including the Moorebank Avenue Upgrade Works compounds, Hansen Yuncken compound and Liberty compound • Establishment of temporary batch plant and materials crushing plant
Bulk earthworks, drainage and utilities	• Importation, stockpiling and placement of up to 600,000 m^3 of imported clean general fill for bulk earthworks • Installation of on-site detention (OSD) and drainage infrastructure within the MPE Stage 2 site • Construction of retaining walls • Creation of internal road formation by general earthworks (by constructing fill embankments) • Bulk earthworks and adjusting the building formation of the Project site to final level, including the terminal hardstand • Utilities relocation and installation • Establishment of hardstand areas.
Construction and internal fit-out of warehousing	• Foundation and floor slab installation • Erection of framework and structural walls • Installation of roof • Internal fit-out of warehouses (racking and associated services).
Miscellaneous construction and finishing work	• Pavement construction (internal transfer roads and perimeter road), including forming of new kerbs, gutters, medians (where required) and other structures • Line marking, lighting and sign posting • Installation of road furniture, including traffic signs and pavement markers. • Miscellaneous structural construction • Finishing works, including landscaping and general site rehabilitation, where required • Commissioning of the Project • Decommissioning / demobilisation of the Project site, including removal of construction compound(s) and temporary construction environmental controls.
Construction of the Moorebank Avenue diversion road	• Stripping of topsoil within footprint of temporary diversion road • Installation of temporary drainage

Construction Works Period	Activity
	• Placement of fill and temporary road pavement (e.g. gravel) • Construction of interface between temporary diversion road and existing Moorebank Avenue • Installation of temporary road signage, street lighting and signalling • Transfer of traffic onto temporary diversion road from Moorebank Avenue.
Bulk earthworks, drainage and utilities	• Removal of existing pavement and stripping of topsoil within Moorebank Avenue • Importation, stockpiling and placement of up to a total of 600,000 m^3 (including the volume imported during the previous phases) of imported clean general fill for bulk earthworks • Creation of a road formation by general earthworks (by constructing fill embankments) • Utilities relocation and installation
Pavement works along Moorebank Avenue	• Placement of select layer of earthworks material on top of the road formation • Placing and compacting the pavement later (concrete, or concrete and asphalt) over the select layer (consisting of a sub-base and base) and potential sealing with bitumen • Traffic switching from diversion road onto final, upgraded Moorebank Avenue • Removal of construction traffic management and progressive opening of the internal road and warehouse access roads to traffic • Removal of road surface, road signage, street lighting and signalling from temporary diversion road • Commissioning of Moorebank Avenue.

3.1.3 Moorebank Avenue Upgrade

Prior to the commencement of any Moorebank Avenue upgrade works, a temporary diversion road will be constructed on the west side of Moorebank Avenue. This temporary diversion road will be designed to accommodate vehicles up to and including a 30m long Super B-Double, with minimum 3.5m wide traffic lanes. Two lanes of traffic on Moorebank Avenue will be provided and available at all times during construction, unless otherwise approved by Roads and Maritime, in accordance with CoC B2(g) requirements. However, some localised closures will be required to allow for the tie-ins to Moorebank Avenue at either end and then to allow for the traffic switch onto the temporary diversion road.

The Contractor will be responsible for obtaining all relevant approvals prior to the commencement of such activities as outlined in Section 2.1.1.

This CTAMP-B has been developed in accordance with the 85 % detailed design drawing set of the temporary diversion road (Northrop, November 2018).

3.1.4 Construction Vehicles

The size of the proposed construction vehicles expected during the Construction Phase B works include:

- 25 m long B-double, truck-and-dog and semi-trailer vehicles for larger deliveries, including to import general fill material to the Project site
- Heavy to small rigid vehicles for remaining construction activities and deliveries.

3.1.5 Construction Site Compounds and Access

The access points to the construction compounds are shown in Figure 3-1 for Construction Phase B.

Temporary construction compounds will be required to ensure that all construction materials and plant equipment are wholly contained within the Project site. Under no circumstances will construction materials

and/or plant or equipment be stored on a public road, unless prior approval and relevant permit approvals have been obtained from relevant authorities.

Two site access points have been nominated for vehicular access to the Project site as detailed below (and depicted in Figure 3-1):

- A signalised intersection south of the Defence Joint Logistics Unit (DJLU) along Moorebank Avenue, in order to facilitate access to the site to the east of Moorebank Avenue (northern access point in Figure 3-1).
- A signalised intersection at the Chatham Avenue / Moorebank Avenue intersection to facilitate access west of Moorebank Avenue into the Moorebank Avenue upgrade works area (southern access point in Figure 3-1).

Table 15 Traffic access/egress arrangements for initial stages of Construction Phase B

Project access/egress	Directions
Site Entry	
Entry to MPE site east of Moorebank Avenue	1. Approach the site heading south along Moorebank Avenue from the M5 intersection 2. Turn left at signalised intersection south of the Defence Joint Logistics Unit (DJLU) to enter the MPE site 3. Use MPE site internal road to access relevant construction compound within the Project site.
Entry to MPE site west of Moorebank Avenue	1. Approach the site heading south along Moorebank Avenue from the M5 intersection 2. Continue straight through the signalised intersection south of DJLU 3. Turn right (west) at intersection with Chatham Avenue and Moorebank Avenue 4. Turn right (north) off of Chatham Avenue into the MPE Project site
Site Exit	
Exit from MPE site east of Moorebank Avenue	1. Use internal MPE site road network to access signalised intersection at site access point off Moorebank Avenue 2. Turn right (north) onto Moorebank Avenue 3. Continue to M5 motorway
Exit from MPE site west of Moorebank Avenue	1. Use construction road network to access site access point 2. Turn left (east) onto Chatham Avenue toward Moorebank Avenue 3. Turn left (north) onto Moorebank Avenue 4. Continue to M5 motorway

Table 16 details the future traffic access and egress arrangements for later stages of Construction Phase B (following implementation of the temporary diversion road) (refer to Figure 3-1). The MAUW works will be carried out during the later stage of Construction Phase B. A series of construction gates will be provided off of the temporary diversion road to access the Moorebank Avenue upgrade works site and the MPE site. These future access arrangements are not captured in detail within this iteration of the CTAMP and will require the development of Vehicle Movement Plans in advance of the works. The process for the development and implementation of Vehicle Movement Plans (VMPs) is outlined in Section 3.2.12.

Table 16 Traffic access/egress arrangements for later stages of Construction Phase B

Project access/egress	Directions
Site Entry	
Entry to MPE site east of Moorebank Avenue	1. Approach the site heading south along Moorebank Avenue from the M5 intersection 2. Travel along Moorebank Avenue temporary diversion road 3. Turn left (east) at the temporary access point to the MPE site (precise access location to be determined at a later stage) 4. Use MPE site internal road to access relevant construction compound within the Project site.
Entry to MAUW construction site off Moorebank Avenue	1. Approach the site heading south along Moorebank Avenue from the M5 intersection 2. Travel along Moorebank Avenue temporary diversion road 3. Turn left/right off of the temporary diversion road into the construction gates for the MAUW construction site (precise access locations to be determined at a later stage) * Once the Anzac Road intersection western leg has been built, an additional construction site access point will be provided to access to the northern extent of the MAUW construction site
Site Exit	
Exit from MPE site east of Moorebank Avenue	1. Use the MPE site road network to travel to the site access point onto Moorebank Avenue 2. Turn right (north) onto Moorebank Avenue 3. Continue to M5 motorway
Exit from MPE site west of Moorebank Avenue	1. Use construction road network to exit the site via the designated site access point 2. Turn left (north) onto Moorebank Avenue 3. Continue to M5 motorway

All construction vehicles will enter and exit the site access in a forward direction at all times. Swept path analysis has been conducted for site access to identify suitable vehicle accessibility to and from the Project site (refer to Appendix E). The swept path analysis indicates that 36.2m long A-Double vehicles can be used at the main MPE Stage 2 site entry and exit, while a 25m long B-Double can be used at the Chatham Avenue site entry and exit. Notwithstanding the following vehicle size restrictions will be implemented for the Project:

- Main access point for both initial and later stages: 30m long Super B-Double
- Chatham Avenue access point for both initial and later stages: 25m long B-Double.

Swept path analyses associated with the activities outlined in CoC B13 should be provided to RMS in line with the Works Authorisation Deed (WAD) process required under CoC B14. Swept path analyses required for all other activities outside of those outlined in CoC B13 will be provided to RMS with detailed Vehicle Movement Plans (VMPs) at least 10 working days prior to the proposed activity, in accordance with Roads and Maritime QA Specification G10. All demolition and construction vehicles must be contained wholly within the site and vehicles must enter the site before stopping, in accordance with CoC B6.

All truck drivers will be advised of the nominated truck routes to / from the Project site and be required to adhere to the nominated routes (refer to Section 3.2.12). This will also be incorporated as part of the Driver's Code of Conduct, refer to Appendix B.

MPE Stage 2 Construction Traffic Access Management Plan - Phase B

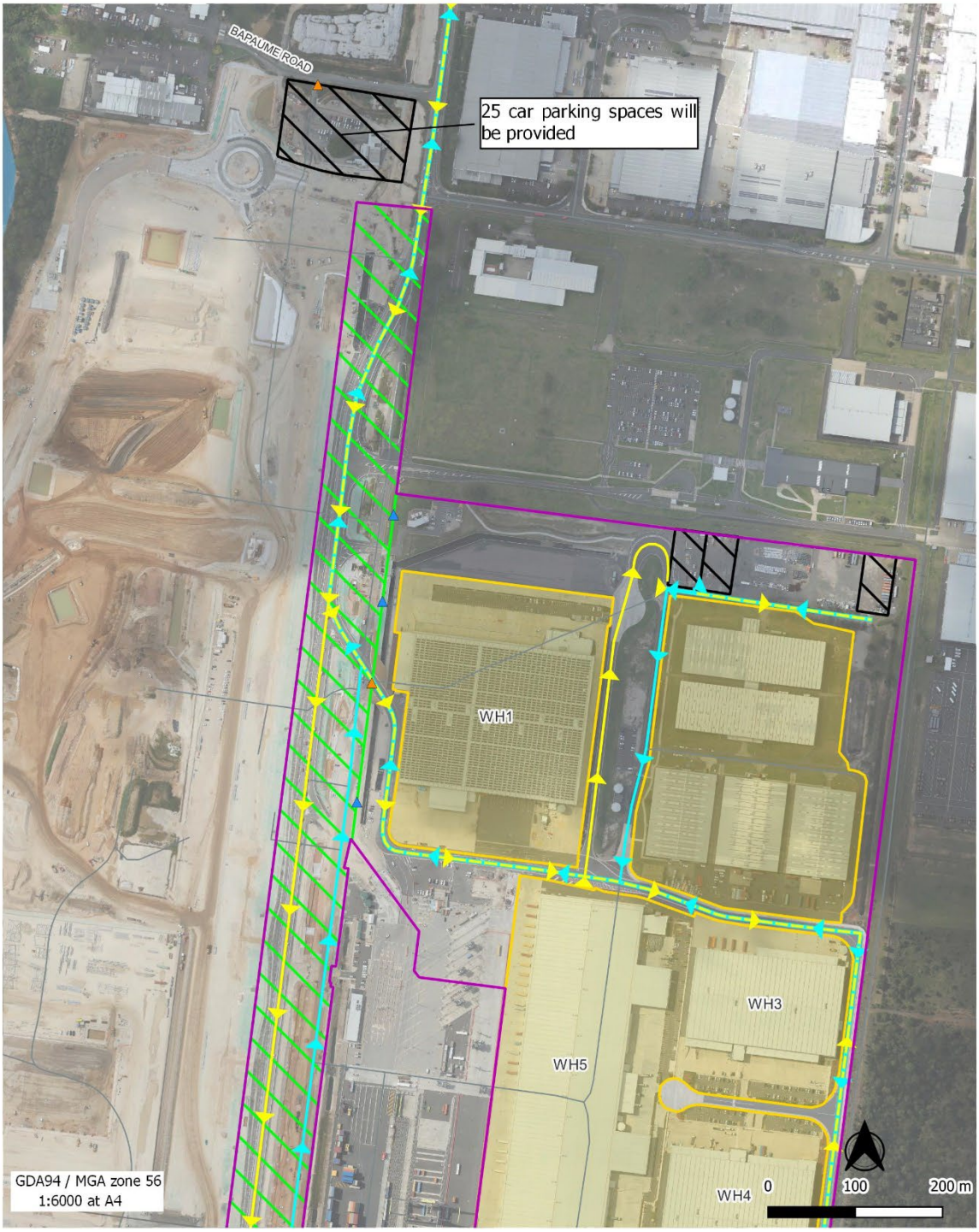


Figure 3-1a: Compound Location, Traffic Flow and Access Points

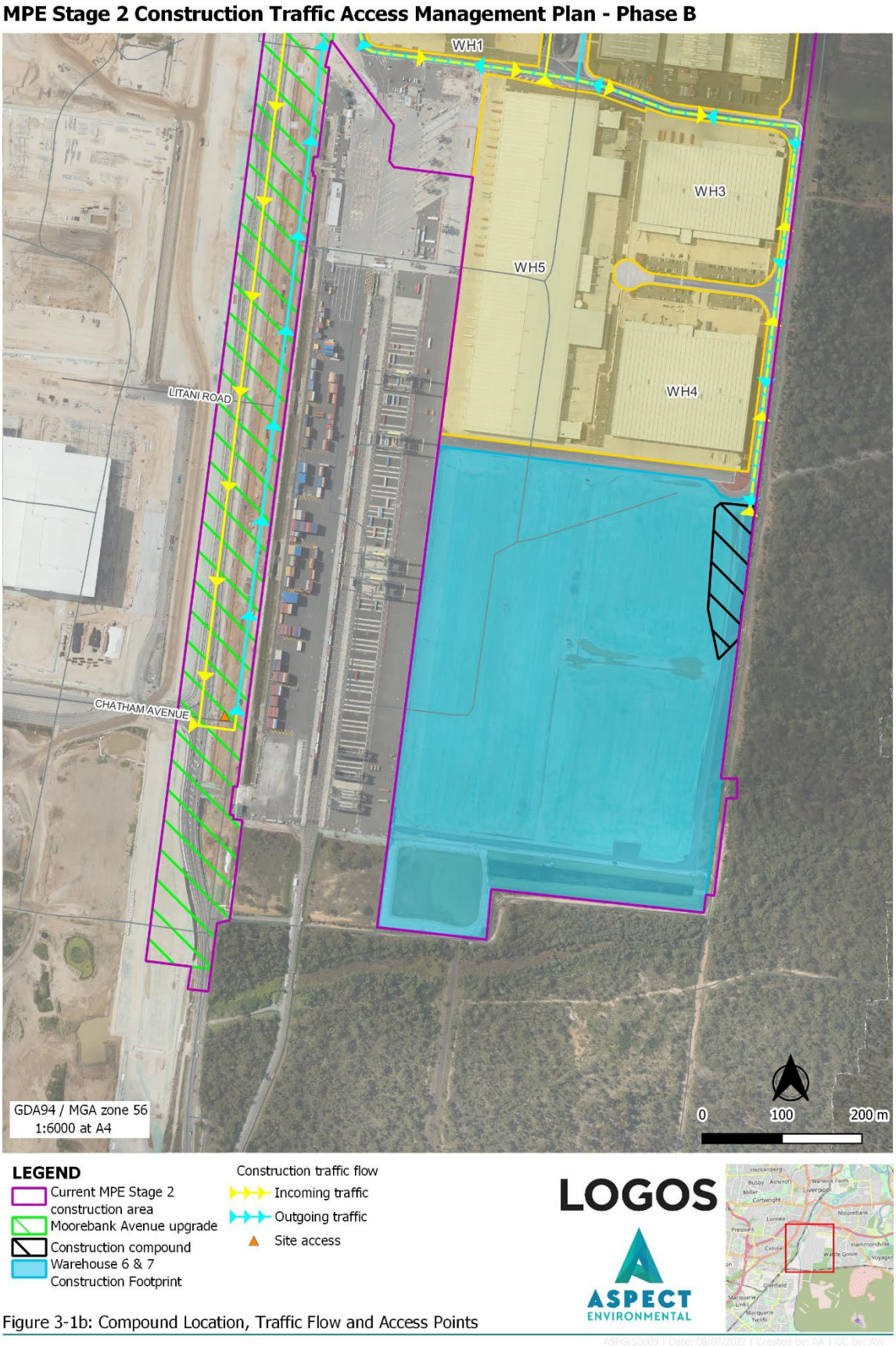


Figure 3-1b: Compound Location, Traffic Flow and Access Points

Figure 3-1 Location and Access Points of Project Compounds

3.1.6 Fill Haulage Routes / Vehicle Movement Plan

Vehicles transporting fill to site will generally use the nominated construction truck routes, i.e. M5 Motorway and Moorebank Avenue to access the Project site, as noted above. Heavy vehicles transporting spoil and demolition material off site will exit the Project Site and head north on Moorebank Avenue towards the M5 Motorway.

In the event that the nominated route was not available, vehicles will be restricted to travel via Roads and Maritime B-double routes and adhere to existing posted load limits on roads.

No heavy vehicles will use Anzac Road. The use of Glenfield Waste Facility is not currently expected. In the event that disposal of unsuitable material to Glenfield Waste Facility is required, a small number of truck movements (expected to be less than six per day) will access the facility / Project site via Cambridge Avenue.

The haulage routes will be communicated to the fill import contractors during the heavy vehicle drivers' induction. The Fill Importation Management Protocol (Appendix D) and Driver's Code of Conduct (Appendix B) will be provided to all contractors.

All construction vehicles will be required to adhere to the nominated construction routes to/from the Project site. The Vehicle Movement Plan during Construction Phase B is provided in Figure 3-2. An alternative route includes heavy vehicles travelling north along Moorebank Avenue, over the M5 Motorway up to the intersection with Newbridge Road. Vehicles would then turn right onto Newbridge Road (which becomes Milperra Road and then becomes Canterbury Road) and then turn right onto either King Georges Road or Bexley Road and then turn left onto the M5 Motorway and follow prior to following the standard nominated route. This alternative route can also be accessed by buses.

The indicative spoil source locations and access to and from site re included in Figure 3-3. Spoil material will be sourced from additional development projects around the Sydney area, as required.

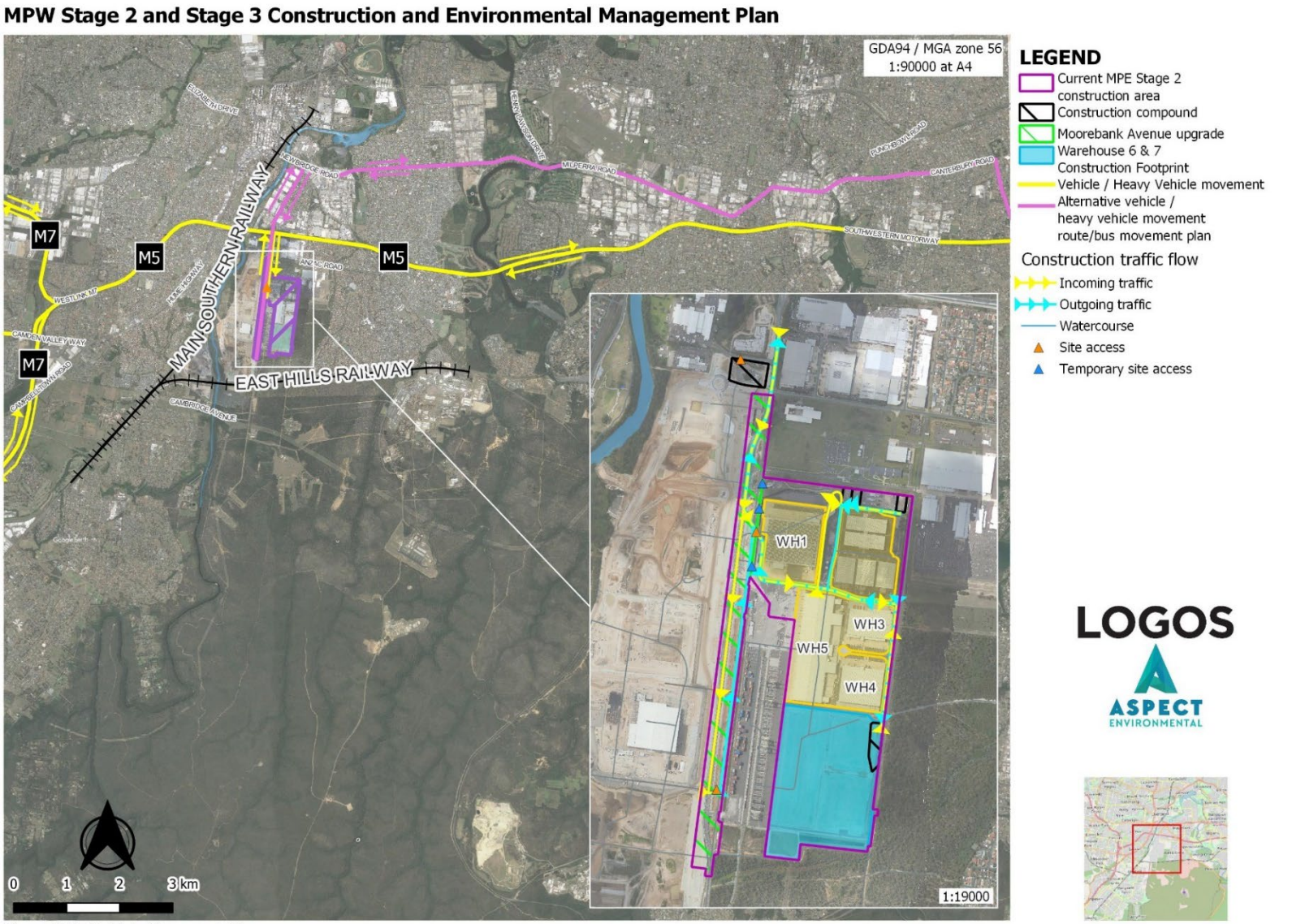


Figure 3-2: Vehicle Movement Plan

Figure 3-2 Vehicle Movement Plan

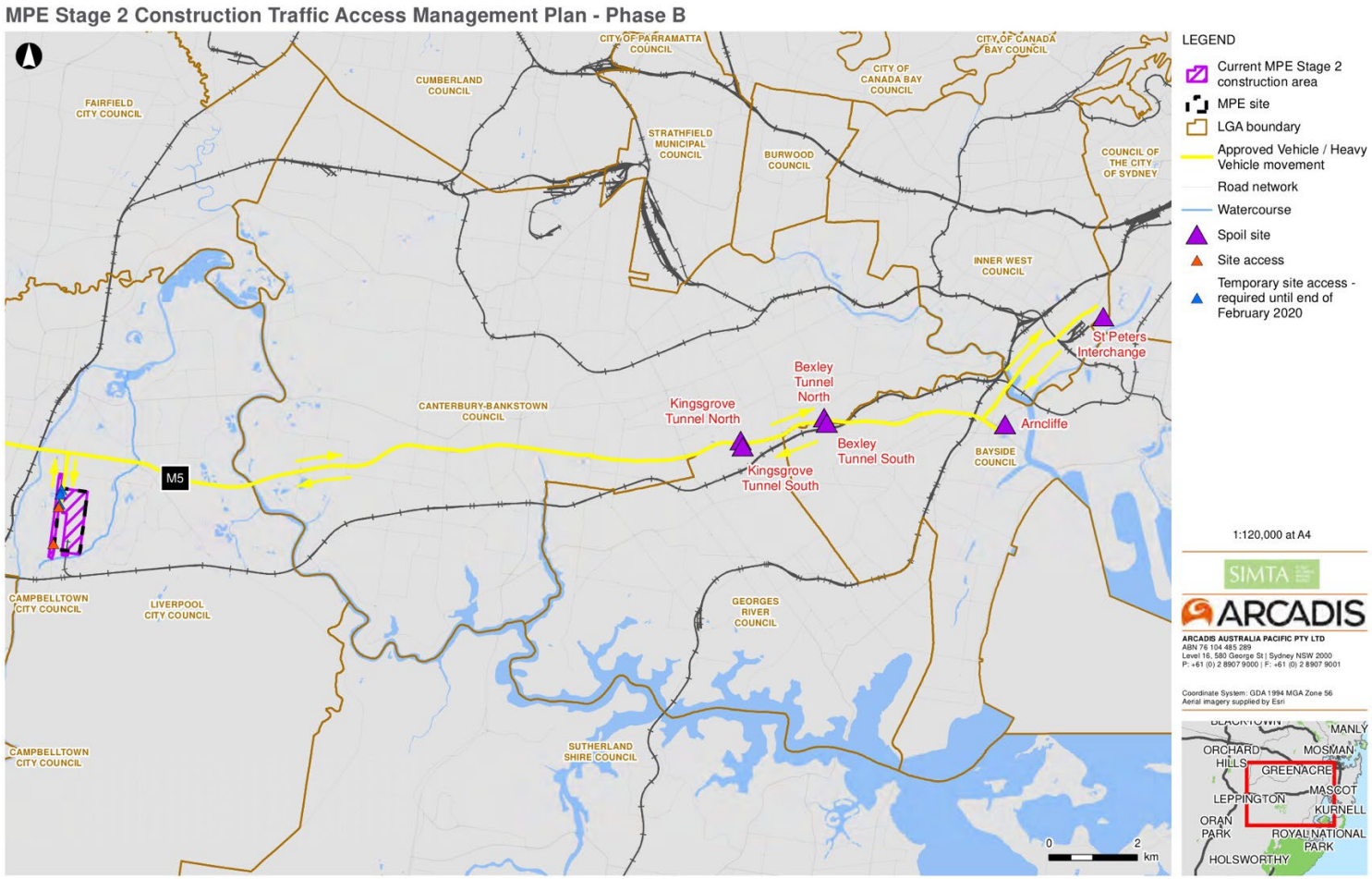


Figure 3-3 Vehicle / Heavy Vehicle Movement Plan (Indicative Spoil Sources)

3.1.7 Construction Hours

The construction hours for the Project are defined by the Development Consent. The standard construction hours are defined in CoC B65, as the following:

- Early Works and Construction:
  - 7am to 6pm, Monday – Friday
  - 7am to 1pm, Saturday
- Moorebank Avenue upgrade:
  - 7am to 6pm, Monday – Friday
  - 7am to 1pm, Saturday

Extended work hours for the project are available through the development of an Extended Hours Work Plan. The extended work hours are defined in CoC B69, as the following:

- Early Works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching)
  - 6am to 7am and 6pm to 10pm, Monday – Friday
  - 1pm to 5pm, Saturday

Out of Hours Works and Extended Hours Works will be periodically required to minimise disruption to construction or operational activities. Works outside of standard hours are available under CoC B67 in the following circumstances:

a. for the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons
b. where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm
c. where different construction hours are permitted or required under an EPL in force in respect of construction, in which case these construction hours must be complied with
d. where they are undertaken in accordance with an Out-Of-Hours Work Protocol detailing the assessment, management and monitoring of noise as part of the Construction Noise and Vibration Management Plan.

In addition, works activities that may be required outside standard construction hours include:

- staging of work activities, traffic diversions and lane modifications as agreed by Roads and Maritime for safety reasons.

3.1.8 Construction Traffic Generation

As part of the Project, construction is anticipated to generate the following peak hour vehicle numbers during the peak construction period:

- 214 light vehicles per day
- 511 heavy vehicles per day.

A total of 725 vehicles per day are expected during the peak construction period of the Project, which equates to some 1,450 vehicle movements per day (two-way movements).

Construction traffic volume estimates are based on the proposed construction schedule and the estimated volume of material to be moved during the various work periods. Construction vehicles would be accessing the site from the north only, via Moorebank Avenue.

As indicated previously, construction on the Project site will also be occurring concurrently with other works within the vicinity, including the MPE Stage 1 and MPW Early Works. As such, the 'worst-case' cumulative construction traffic volumes expected during peak construction are summarised in Table 17.

Table 17 Cumulative Construction Traffic Volumes During the Peak Construction Period

Vehicle type	Vehicle movements per day		
	MPE Stage 1	MPW Early Works	MPE Stage 2 RtS
Light vehicles	400	170	428
Heavy vehicles	400	250	1022
Total	**800**	**420**	**1450**

Daily traffic was assumed to evenly distributed across works periods as follows:

- MPW Early Works: 7am - 5pm – assumed ~10% of construction trucks per hour
- MPE Stage 1: 7am - 5pm – assumed ~10% of construction trucks per hour
- MPE Stage 2: 7am - 7pm – assumed ~8% of construction trucks per hour

Table 17 indicates that during the 'worst-case' peak construction period, up to 2,600 vehicle movements per day could be expected. The impacts under this scenario are discussed in Section 3.2.

3.2 Construction Traffic Impact

3.2.1 Existing Baseline Traffic Conditions

Traffic count surveys undertaken for MPE, MPW and Roads and Maritime's wider Liverpool Moorebank Arterial Road Investigations (LMARI) traffic model in 2015 were used for the CTIA. Table 18 shows existing peak hour traffic volumes on Moorebank Avenue, Anzac Road and Cambridge Avenue.

Table 18 Peak Hour Traffic Volumes on Key Roads in 2015

Locations	AM Peak (8-9am)		PM Peak (5-6pm)	
	NB/EB (1)	SB/WB (1)	NB/EB (1)	SB/WB (1)
Moorebank Ave, South of Anzac Rd	950	430	450	840
Anzac Rd, East of Moorebank Rd	720	490	510	520
Moorebank Ave, South of Jacquinot Road	920	360	350	920

Note: (1) Northbound (NB), Eastbound (EB), Southbound (SB), Westbound (WB).

As part of the MPE Stage 2 RtS, the existing baseline traffic volumes have been updated to reflect 2017 data as part of the revised cumulative traffic analysis for the MPE sites (i.e. MPE Stage 2, MPW Early Works and MPE Stage 2 works). The revised traffic intersection analysis is further detailed in Section 3.2.2 below.

3.2.2 Intersection Performance

Revised traffic intersection analysis using SIDRA Intersection 7.0 modelling software has been conducted to assess the cumulative impacts during the peak construction period, when activities for MPE Stage 1 and MPW Early Works will be occurring concurrently with the construction on the MPE Stage 2 works in 2018.

It should be noted that two lanes of traffic on Moorebank Avenue will be made available at all times where possible during the construction works period via the temporary diversion road. This temporary diversion road will be constructed prior to the commencement of any Moorebank Avenue upgrade works.

Roads and Maritime uses Level of Service (LoS) as a measure of performance for all intersection types operating under prevailing traffic conditions. The level of service ranges from LoS A to LoS F which is directly related to the average intersection delays experienced by traffic travelling through the intersection. LoS A to LoS D are considered to provide acceptable performance, with LoS A providing better performance than

LoS D. LoS D is the long-term desirable level of service. LoS E and LoS F are considered to provide unsatisfactory intersection performance.

A summary of the traffic modelling findings under the 'worst-case' cumulative construction traffic scenario is as follows:

- The M5 Motorway-Moorebank Avenue interchange will continue to operate at an overall acceptable Level of Service (LoS) at B and C in the AM and PM, respectively. The expected changes for specific movements at this intersection are shown in Table 19 and Table 20.
- The Moorebank Avenue/ MPE Stage 2 Site Access will continue to operate at LoS A in both the AM and PM
- The Moorebank Avenue-DJLU Access will operate at LoS A in the AM and PM
- The Moorebank Avenue-Anzac Road intersection will operate at LoS C or better in the AM and PM.

The results of the AM and PM Peak SIDRA analysis are presented in Table 19 and Table 20, respectively. It is noted that the existing modelling results (i.e. without construction) have been derived from the revised cumulative traffic modelling as part of the MPE Stage 2 RtS.

Table 19 AM Peak Intersection Performance Results

Intersections	Intersection Control	AM Peak			
		Existing Baseline Scenario (without construction)		Proposed Scenario (With construction) *	
		Ave. Delay (s)	LoS	Ave. Delay (s)	LoS
Moorebank Avenue-MPE Stage 2 Site Access	Signal	7	LOS A	12	LOS A
Moorebank Avenue-DJLU Access	Signal	N/A^	N/A^	4	LOS A
Moorebank Avenue-Anzac Road	Signal	18	LOS B	39	LOS C
M5 Motorway-Moorebank Avenue	Signal	24	LOS B	34	LOS C

Table 20 PM Peak Intersection Performance Results

Intersections	Intersection Control	PM Peak			
		Existing Baseline Scenario (without construction)		Proposed Scenario (With construction) *	
		Ave. Delay (s)	LoS	Ave. Delay (s)	LoS
Moorebank Avenue-MPE Stage 2 Site Access	Signal	6	LOS A	10	LOS A
Moorebank Avenue-DJLU Access	Signal	N/A^	N/A^	5	LOS A
Moorebank Avenue-Anzac Road	Signal	17	LOS B	44	LOS D

Intersections	Intersection Control	PM Peak			
		Existing Baseline Scenario (without construction)		Proposed Scenario (With construction) *	
		Ave. Delay (s)	LoS	Ave. Delay (s)	LoS
M5 Motorway-Moorebank Avenue	Signal	30	LOS C	39	LOS C

Note:

* Assessed against the peak construction period, including MPE Stage 1, MPE Stage 2 (subject of this CTAMP) and MPW Early Works.

^The existing conditions of the Moorebank Avenue / MPE Stage 2 Site Access intersection have not been modelled as the intersection is not currently operational.

The above traffic modelling results indicate that the surrounding key intersections along Moorebank Avenue shall continue to operate at an acceptable LoS.

As shown in Figure 3-3, heavy vehicles will be turning left and right to the M5 Motorway from Moorebank Avenue, and turning right and left into Moorebank Avenue from the M5 Motorway. Roads and Maritime have requested (refer to Appendix A) that the results of the AM and PM Peak SIDRA analysis for specific movements be included in this CTAMP-B. Those results, derived from the MPE Stage 2 RtS, are presented in Table 21 and Table 22.

Table 21 AM Peak Intersection Performance Results – M5 Motorway / Moorebank Avenue

Approach	Turn Movement	AM Peak			
		Without construction		With construction	
		Delay (s)	LoS	Delay (s)	LoS
South – Moorebank Avenue	Left	9	A	11	A
	Through	34	C	48	D
	Right	44	D	45	D
East – M5 Motorway Off-Ramp	Left	8	A	9	A
	Right	43	D	47	D
North – Moorebank Avenue	Left	7	A	7	A
	Through	32	C	44	D
	Right	49	D	49	D
West – M5 Motorway Off-Ramp	Left	8	A	15	B
	Right	30	C	30	C

Table 22 PM Peak Intersection Performance Results – M5 Motorway / Moorebank Avenue

Approach	Turn Movement	AM Peak			
		Without construction		With construction	
		Delay (s)	LoS	Delay (s)	LoS
South – Moorebank Avenue	Left	17	B	28	B
	Through	38	C	55	D
	Right	42	C	30	C
East – M5 Motorway Off-Ramp	Left	8	A	11	A
	Right	44	D	72	F
	Left	7	A	7	A

Approach	Turn Movement	AM Peak			
		Without construction		With construction	
		Delay (s)	LoS	Delay (s)	LoS
North – Moorebank Avenue	Through	21	B	66	E
	Right	45	D	45	D
West – M5 Motorway Off-Ramp	Left	6	A	6	A
	Right	44	D	50	D

3.2.3 Construction Worker Parking

A number of the Project's staff and labour force are expected to drive to the Project site and will require car parking. It is anticipated that approximately 214 light vehicles will access the Project site per day.

A total of 150 parking spaces for construction workers will be made available within the Project site during the course of the works (refer to Figure 3-1). Of this, 25 car parking spaces will be located in the Moorebank Avenue upgrade works compound for Project staff and labour force working exclusively in the Moorebank Avenue upgrade works construction area. However, all workers will be generally encouraged to use public transport and/or carpool to travel to/from the site. This will be incorporated into the site induction program.

3.2.4 Public Transport Accessibility

Prior to construction of the Moorebank Avenue diversion road, the Project will not impact on existing public transport services i.e. bus services. However, during construction of the Moorebank Avenue diversion road, bus services in the area (bus routes 901 and 902) will be affected. Consultation has been undertaken with Transport for NSW and Roads and Maritime to ensure adequate management of impacts to these bus routes.

3.2.5 Pedestrian and Cycle Access

Following the Roads and Maritime Health and Safety in Design (HSID) Risk Assessment Workshop conducted in April 2018 pedestrian access along the Moorebank Avenue diversion road has been removed. Detailed Pedestrian Movement Plans (PMPs) associated with the activities outlined in CoC B13 must be provided to RMS in line with the Works Authorisation Deed (WAD) process required under CoC B14. PMPs required for all other activities outside of those outlined in CoC B13 are required to be prepared and submitted with the TCPs, at least 10 working days prior to the proposed activity, in accordance with Roads and Maritime QA Specification G10.

The alternative pedestrian and cyclist pathways will require adjustment at various stages throughout construction of the diversion road and during its operation, and as such an updated PMP will be prepared as required.

3.2.6 Adjoining Properties and Local Access

All construction access / egress points will be maintained during Construction Phase B works as per existing conditions, with mitigation measures implemented, if necessary. Regular consultation with all affected local properties will be conducted to minimise any disruption to existing access arrangements. Consultation will be undertaken in accordance with the Community Communication Strategy (CCS). The types of consultation employed by the Project will depend on the proposed disruption and expected impacts. Consultation may include:

- Signage
- Door knocking relevant property owners and/or businesses
- Phone calls
- Specific community notifications / letter box drops

- Community updates / newsletters.

3.2.7 Emergency Vehicles and Heavy Vehicles

No special provisions for emergency service vehicles or heavy vehicles are required as part of Construction Phase B works. Emergency service vehicle and heavy vehicle access will be maintained throughout construction (Phases A and B).

3.2.8 Cumulative Impacts

The traffic modelling results indicate that under the cumulative construction scenario the surrounding key intersections along Moorebank Avenue will continue to operate at an acceptable LoS during the AM and PM peaks during peak construction. The traffic modelling findings under the 'worst-case' cumulative construction traffic scenario is as follows:

- The M5 Motorway-Moorebank Avenue interchange will continue to operate at an overall acceptable LoS at B and C in the AM and PM respectively.
- The Moorebank Avenue/ MPE Stage 2 Site Access will continue to operate at LoS A in both the AM and PM
- The Moorebank Avenue-DJLU Access will operate at LoS A in the AM and PM
- The Moorebank Avenue-Anzac Road intersection will operate at LoS C or D (worst case) in the AM and PM respectively.

Management measures (see Section 3.2.21) will be implemented during construction to minimise traffic impacts. Appropriate implementation of these controls will reduce the risk of traffic impacts during the construction phase of the Project.

3.2.9 Construction Traffic Management Measures

The effective management of construction traffic to and from the construction work sites is critical for the efficient delivery of the Project and to minimise impacts to road users and the surrounding community. This section describes the overall approach to managing and mitigating traffic and transport risks during construction of the Project.

The following sub-sections include several plans that require submission to RMS for approval prior to works commencing. Where possible, when multiple traffic plans (e.g. TCP, VMP, etc.) are required to be submitted to RMS for review, these plans should be packaged together and submitted to RMS or TMC (as applicable) as early as possible to avoid delays to the construction program.

Note that plans associated with the activities outlined in CoC B13 must be provided to RMS in line with the Works Authorisation Deed (WAD) process required under CoC B14. Plans required for all other activities outside of those outlined in CoC B13 must be provided to RMS in line with the requirements of Roads and Maritime QA Specification G10. Note that consideration of these documents by RMS may extend beyond the standard minimum timeframe that is specified in Roads and Maritime QA Specification G10.

3.2.10 Traffic Control Plans

As part of the works, Traffic Control Plans (TCPs) will be prepared to manage all construction vehicle activity at construction site access points in advance of the works. TCPs associated with the activities outlined in CoC B13 must be provided to RMS in line with the WAD process required under CoC B14. TCPs required for all other activities outside of those outlined in CoC B13 will be submitted with ROL applications at least 10 working days prior to the proposed work the ROL is pertaining to.

TCPs will be designed in accordance with *AS 1742.3 Manual of uniform traffic control devices – Traffic control devices for works on roads and Roads and Maritime Traffic Control at Worksites Manual*. Signs will be installed and maintained throughout the construction period, unless otherwise specified.

TCPs will be prepared to:

- Alert drivers about changes to normal road conditions
- Inform drivers of changed road conditions
- Direct drivers around the Project site
- Provide a safe environment for construction workers, motorists, cyclists and pedestrians.

Future TCPs will be identified and developed progressively during construction as the works progress. These progressive TCPs will be managed separately to this CTAMP and developed by a suitably qualified professional and provided to the Environmental Representative (ER) for information prior to the commencement of works applicable to that TCP.

3.2.11 Traffic Control Devices

Traffic Control Devices (TCD) are all signs, traffic signals (permanent and temporary), road markings, pavement markers, traffic islands, and/or other devices placed or erected to regulate, inform, warn and/or guide road users. All sign posting installed for the Project will comply with the requirements outlined in the Road and Maritime's *Traffic Control at Worksites Manual* (TCAWs), Road and Maritime's *Delineation Manual*, AUSTROADS *Guide to Traffic Engineering Practice*, Part 8 – Traffic Control Devices and the relevant parts of Australian Standard 1742.

Approval from Roads and Maritime to the proposed portable traffic signals will be obtained prior to the commencement of the works to install any portable traffic signals.

3.2.12 Vehicle Movements

All project-related heavy vehicles are required to approach the Project Site from the north, either via the M5 Motorway or via the alternate route as detailed in Section 3.1.6, Figure 3-2 and Figure 3-3. All vehicles are to enter and exit the Project Site in a forward direction only at the site access points identified on Figure 3-1. Access to the MPE Site, east of Moorebank Avenue is managed via a signalised intersection or turning lane. Access to the western side of Moorebank Avenue is via a turning lane at Chatham Avenue in the south or Bapaume Road to the north of the Project Site.

Vehicle Movement Plans (VMPs) associated with the activities outlined in CoC B13 must be provided to RMS in line with the WAD process required under CoC B14. VMPs required for all other activities outside of those outlined in CoC B13 are required to be prepared and submitted with the TCPs, at least 10 working days prior to the proposed activity, in accordance with Roads and Maritime QA Specification G10. These VMPs will be supported by swept path analyses that will confirm vehicles are able to enter and exit the Project Site in a forward direction for all stages of construction.

If there are any materials spilt onto the road, site personnel and equipment shall rectify the issue accordingly, subject to appropriate OH&S provision.

3.2.13 Driver's Code of Conduct

All drivers employed on the Project, whether direct employees or not, have a responsibility to drive safely, comply with State road regulations and the Australian Road Rules and any other directives issued by the Principal's Representative. In particular, before any deliveries are undertaken all heavy vehicle drivers will be required to read and endorse the Driver's Code of Conduct. Copies of the Driver's Code of Conduct will be issued to relevant transport companies in advance and copies signed by drivers will be required to be provided on arrival to site.

To reinforce these obligations are Driver's Code of Conduct has been prepared and is included in Appendix B.

3.2.14 Traffic Impact Reduction Strategy

A range of measures will be applied to encourage carpooling to/from the Project site, including:

- Provision of car parking spaces within the Project site, with car parking spaces allocated to employees, with preference given to those carpooling
- Carpooling will be strongly encouraged
- The Project induction will reinforce themes regarding parking allotments, car-pooling and courteous and professional behaviour when leaving and accessing the Project site.

3.2.15 Traffic Incident Management

The Roads and Maritime *Incident Response Plan Manual* provides guidelines for procedures and responses to emergency incidents. Details of incidents within an ROL area would be recorded and submitted to the Roads and Maritime Traffic Operations Manager within seven days of the incident. The incident report will include:

- Details of its location
- Contributing factors related to the ROL
- Actions taken with the ROL conditions.

Incident Management Plans for worksites are to be developed within the site specific TMPs. An ROL database would be maintained to record all incidents and road crashes.

To facilitate effective incident management, the project would allow for the provision of incident response resources to respond to and mitigate the impact of incidents that may occur along the construction zones adjacent to traffic.

Where construction sites limit roadways to a single lane, a tow truck would be positioned on-site for the duration of the construction stage.

3.2.16 Managing Construction Worker Parking

To manage construction worker car parking, it is proposed to implement the following measures to encourage workers to use public transport and/or carpool:

- Provide an on-site tool drop-off and storage facility to allow tradespeople to drop off and store their tools/specific machinery for the Project
- Inform staff during the induction and regular management meetings where on-site car parking is located and that there is limited on-street car parking surrounding the site
- Instruct staff to use public transport and/or carpool to access the site during the induction and regular management meetings
- Display public transport timetable information and details of the TfNSW NSW Trip Planner website at key locations within the Project work site and ensure that it is easily accessible by staff.

3.2.17 Dilapidation Survey and Repairs

A Pre-construction Road Dilapidation Report for affected roads was undertaken prior to the Commencement of Construction Phase-A.

The Pre-construction Road Dilapidation Report was submitted to the Certifying Authority and a copy forwarded to Campbelltown City Council, Liverpool City Council, Roads and Maritime and the Secretary of the Department of Planning and Environment.

Affected local roads will be regularly inspected for damage during the Project and on completion of the project. Following completion of construction, a Post-Construction Road Dilapidation Report will be prepared to assess potential damage that may have resulted from the construction of the Project. The Post-Construction Road Dilapidation report will take into consideration the findings of the Pre-Construction Dilapidation Report.

Restoration and repair of roads affected by Construction Phase B works will be undertaken in a timely matter in accordance with Council and Roads and Maritime requirements at the expense of the Construction Contractor.

The defects shall be categorised as low to high risk, with high risk defects actioned within 24 hours. The defect rating classification is described in Table 23.

Table 23 Defect Rating and Response Timing

Defect Rating	Description	Response Time
High	Defect may cause serious injury or large-scale property damage.	Within 24 hours
Medium	Noticeable cracks/defects which can be readily filled/rectified. Defect is unlikely to cause injury/property damage.	Within 2 weeks
Low	Fine and hairline cracks/defects which do not need repair.	No works required. Typical wear and tear.

The protocol for dilapidation surveys and repairs is provided in Appendix D.

3.2.18 Training

Site inductions, including site layout and emergency procedures, will be carried out as soon as new workers and visitors arrive onsite. All construction workers and visitors to the site will be made aware of construction traffic hazards during site inductions. The induction will include, but not limited to the following:

- Overview of the requirements of this CTAMP
- Relevant legislation
- Access for emergency vehicles
- Personal Protective Equipment (PPE) requirements
- Project contact details
- Incident management and notification
- Hours of work
- Safety policy
- Designated Parking Areas
- Speed Limits
- Permitted access routes
- Performance standards: environmental, OH&S, driver protocols and emergency procedures
- Community Protocol
- Timetabled public transport
- Carpooling information
- Driver's Code of Conduct.

In addition to the above general induction, all visitors will be required to undergo a visitor's induction to ensure that all requirements of the site are adhered to. All visitors will be accompanied around the site by personnel at all times.

Only trained and accredited traffic control personnel will be used for traffic control works on public roads. Traffic controllers will undergo appropriate training and be certified as competent prior to their assignment to undertake traffic management at construction work sites. The minimum requirement is to have satisfactorily completed the Roads and Maritime training package – Traffic Control Using a STOP/SLOW bat.

3.2.19 Liaison with Stakeholders

CoC B2 requires that this CTAMP-B be prepared in consultation with Liverpool City Council, TfNSW and Roads and Maritime. Consultation with these stakeholders, and Campbelltown City Council, has occurred during the preparation of this plan as detailed in Section 1.6 and Appendix A.

CoC B2 also requires that this CTAMP-B include information about notifying the local community regarding development-related traffic impacts. Section 3.2.21 indicates that communication / notification may include:

- Community notifications at least 7 days prior to changes to traffic conditions that may impact on the community or stakeholders
- Provision of project signage at least 7 days prior to any changes that impact on pedestrian routes, cycle ways, traffic conditions or access to public transport.
- Provision of variable message signs (VMS) on Moorebank Avenue advising motorists of construction traffic access routes during peak times of construction traffic.

In accordance with the Community Communication Strategy (CCS), a Community Liaison Manager (CLM) will be appointed to manage all community queries and/or issues relating to the Project for actioning, as necessary.

As per the CCS, regular project updates will be posted on the project website, radio advertising, newsletters, letter box drops or other approved means. In addition to this, written notification will be provided to agencies, local schools and the local community prior to commencement of any activities associated with Construction Phase B. Project updates and notifications will include potential traffic and access related impacts, as required.

The following key stakeholders have been identified for future project updates and notifications regarding traffic associated with Construction Phase B:

- Transport for NSW
- Roads and Maritime Services
- NSW Police Force and other emergency authorities
- Sydney Transit Authority (Sydney Buses)
- Liverpool City Council
- Campbelltown City Council
- Local residents
- Land owners.

The Contractor's CLM will be responsible to manage all community queries, including to notify all relevant stakeholders as per the CCS. The format of notification will be in accordance with the CCS, which forms a sub-plan to the CEMP, and may include such measures as letter box drops. The CCS also includes processes for receiving and responding to enquiries and complaints.

The following communication tools will be available throughout Construction:

- Project Email: simta@elton.com.au
- 24 Hour Project information line: 1800 986 465
- Postal address: PO Box 1488 Bondi Junction NSW 2022
- Project website: www.simta.com.au

3.2.20 Incident Response Management Plan

An Incident Response Plan will be developed by the Construction Contractor and will be consistent with Qube's Incident Reporting and Management procedure (SHEMS-QM-13-PR-0126). The Plan will include all operating procedures for management emergencies and unplanned incident during construction. In addition, the Incident Response Plan will include strategies and measures to respond to any emergency repair requirement or maintenance issues during Construction Phase B.

The Incident Response Plan will identify and define the roles and responsibilities of the relevant project personnel and outline the communication protocols and systems during an emergency and unplanned

incident. Formal arrangements will be in place for the review and maintenance of the Incident Response Management Plan.

3.2.21 Management Measures

The management measures in Table 24 are based on the final compilation of mitigation measures, provided as part of the Response to Submissions report, and the Minister's CoCs, as well as the requirements and standards of SIMTA, the Construction Contractor and best practice.

Table 24 Management Measure

ID	Management Measure	Timing	Responsibility	Reference
Notification and permits				
TA-01	Inform local residents of construction activities and road network changes in line with the Community Communication Strategy (CCS). Notification will include: • Community notifications at least 7 days prior to changes to traffic conditions that may impact on the community or stakeholders • Project signage installed at least 7 days prior to any changes that impact on pedestrian routes, cycle ways, traffic conditions or access to public transport. • VMS signage on Moorebank Avenue advising motorists of construction traffic access routes during peak times of construction traffic.	Prior to commencement of construction	SIMTA Community Engagement Consultant Contractor's CLM	FCMM 1A MPW C'th CoA 5 (b)
TA-02	Distribution of day warning notices to advise local road users of construction activities and traffic movement changes	Construction	Contractor's CLM	FCMM 1A
TA-03	The Construction Contractor must obtain approval from relevant Authorities for all road, footpath and shared path occupancies, detours and closures.	Prior to commencement of construction	Contractor's CM Contractor's Traffic Engineer	CoC B2
TA-04	Immediately advise the Principal's Representative of any accident or incident that involves serious injury, hospitalisation or a fatality	Construction	Contractor's PM Site Supervisor	CoC B2(g) CoC B2(h)
Dilapidation reports and repairs				
TA-05	Prior to commencement of construction a pre-construction dilapidation report will be prepared by a suitably qualified person.	Prior to commencement of construction. Note – completed prior CTAMP-A	Contractor's PM	CoC B2(a)
TA-06	Repair any damage caused by the contractors' activities, to any road, footpath, shared path or cycleway which is open to the public, and restore the road, footpath, shared path or cycleway to a condition at least equivalent to the condition it was in immediately prior to the occurrence of the damage as soon as practicable.	On identification of damage	Contractor's PM	CoC B2(c) CoC B2(d)
Access and egress				
TA-07	Installation of warning signs on approach to and at construction site access and egress	Prior to commencement of construction	Contractor's Traffic Engineer / Contractor's Traffic Personnel	CoC B2(g) FCMM 1A

ID	Management Measure	Timing	Responsibility	Reference
TA-08	In consultation with Roads and Maritime, Liverpool City Council and Campbelltown City Council, general signposting of the access roads will be undertaken with appropriate heavy vehicle and construction warning signs	Construction	Contractor's Traffic Engineer Contractor's PM	CoC B2(b) CoC B2(g)
TA-09	The access and egress driveways, as well as public footpaths surrounding the site will be regularly inspected for mud and silt with appropriate actions taken to remove/ control the contamination and keep these areas in a serviceable condition.	Construction	Site Supervisors Contractor's EM	CoC B8
TA-10	Appropriate directional signage and traffic control will be used to ensure vehicles enter and exit the Project Site with minimal disturbance to other road users and advice of any changes in road conditions. Signage may include: • PREPARE TO STOP • STOP HERE ON RED SIGNAL • LEFT TURN ON RED PERMITTED AFTER STOPPING.	Construction	Contractor's Traffic Engineer	CoC B2(g) FCMM 1A
TA-11	Any oversize vehicle trips to the Project Site will be undertaken in accordance with the Heavy Vehicle National Law and the Roads and Maritime OSOM Vehicle and Load rules. This may include route restrictions, maximum dimension/mass limits, specified operating conditions and the requirement for an access permit.	Construction	Contractor's Traffic Engineer Contractor's CM	CoC B2(g)
Works scheduling and coordination				
TA-12	The transport of materials to the Project site will be managed and coordination to maximise vehicles loads and minimise vehicle movements	Construction	Contractor's CM	CoC B2(e) CoC B2(g) MPW C'th CoA 5 (c)
TA-13	Works and transport of material to site will be scheduled to reduce the volumes of construction vehicles during peak periods	Construction	Contractor's CM	FCMM 1A
TA-14	Construction material will be sourced from within metropolitan Sydney and delivered to the MPE site primarily via the M5 Motorway, Hume Highway, M7 Motorway and Moorebank Avenue.	Construction	Contractor's PM	CoC B2 (f)
TA-15	Total volume of spoil to be imported to site must not exceed 22,000m^3 per day, in accordance with CoC B56(a).	Construction	Principal's Representative	CoC B56(a)

ID	Management Measure	Timing	Responsibility	Reference
TA-16	The import of fill to the Project site will be in accordance with the Fill Importation Management Protocol.	Construction	Principal's Representative Contractor's CM Site Supervisors	FCMM 1G
TA-17	To keep the road user delays to a minimum, contractors will plan and phase all works to avoid road occupancies during peak periods, where possible	Construction	Contractor's Traffic Engineer Contractor's CM	FCMM 1A
TA-18	Monitoring traffic on Moorebank Avenue during peak times to confirm limited queuing at intersections	Construction	Contractor's CM Contractor's Traffic Engineer	FCMM 1A MPW C'th CoA 5 (b)
TA-19	Two lanes of traffic on Moorebank Avenue will be available at all times during Construction Phase B, unless otherwise approved by Roads and Maritime. No Moorebank Avenue upgrade works will commence until the Moorebank Avenue temporary diversion route has been constructed.	Construction	Contractor's CM Contractor's Traffic Engineer	CoC B2(g)
Pedestrian and cyclist access and safety				
TA-20	Safe pedestrian and cyclist access through or around worksites will be maintained prior to construction of the Moorebank Avenue diversion road via existing pedestrian facilities. During construction of the temporary diversion road, no pedestrian or cyclist access will be allowed on Moorebank Avenue and signage will be installed at the northern and southern end of Moorebank Avenue to indicate this.	Construction	Contractor's Traffic Engineer Contractor's CM Contractor's CLM	CoC B2(g) MPW C'th CoA 5 (b) MPW C'th CoA 5 (c)
TA-21	A traffic control person and traffic controls (as outlined in TCPs) will be located at each of the truck entry and exit points from the construction compounds to assist with vehicle movements and safe pedestrian/cyclist movements during construction.	Construction	Contractors Traffic Engineer Contractor's Traffic Control Personnel	CoC B2(g) MPW C'th CoA 5 (b)
TA-22	Establish pedestrian exclusion zones and walking routes that integrate into the existing pedestrian network	Prior to commencement of construction	Contractor's Traffic Engineer	FCMM 1A MPW C'th CoA 5 (b)
TA-23	Pedestrian walking routes and crossing points will be established and clearly marked throughout the construction phase.	Construction	Contractor's Traffic Engineer Contractor's CM	FCMM 1A

ID	Management Measure	Timing	Responsibility	Reference
				MPW C'th CoA 5 (c)
Heavy vehicles				
TA-24	Heavy vehicles for construction of the Project must use designated haul routes on classified roads. Access to Glenfield Waste Facility is only permitted from 10 am to 3pm.	Construction	Site Supervisor Site Personnel	CoC B2(f) FCMM 1A
TA-25	All trucks entering site must have their loads covered from the point of origin. All loads will be covered prior to leaving the site. All vehicles are to enter and leave the site in a forward direction.	Construction	Site Supervisor Site Personnel	CoC B7 CoC B8
TA-26	Compression brakes will not be used by construction vehicles associated with construction in the vicinity of the Project site.	Construction	Contractor's PM Site Supervisor	CoC B2(h) CoC B76
Light-vehicles				
TA-27	Promote carpooling for construction workers and other shared transport initiatives	Construction	Contractor's PM	FCMM 1A
Road Safety Audit				
TA-28	A Road Safety Audit will be undertaken prior to commencement of Early Works.	Completed prior to the works. No corrective actions were identified.	Contractor's Traffic Engineer	CoC B9 FCMM 1B
TA-28a	An updated Road Safety Audit will be undertaken as part of the 85% Detailed Design under the Roads and Maritime WAD process.	Construction	Contractor's Traffic Engineer	CoC B9 FCMM 1B
Access to property				
TA-29	Access to all properties affected by the carrying out of construction will be maintained, where feasible and reasonable, unless otherwise agreed by the relevant property owner or occupier. Any access physically affected by construction will be reinstated to at least an equivalent standard, unless agreed with by the property owner.	Construction	Contractor's CM	MPW C'th CoA 5 (b) Best practice
Traffic incident response				
TA-30	In the event of a site safety incident relating to traffic, the following procedures will be implemented:	Construction	Heavy vehicle operators Contractor's Traffic Engineer	CoC B2(g)

ID	Management Measure	Timing	Responsibility	Reference
	• Stop vehicle/personnel involved in the incident immediately (or as appropriate). Operate warning lights and warn other drivers to slow down. • Immediately begin warning other road users in the safest means possible; • Use an appropriate TCP and use traffic controllers and signage where necessary; and • If a queue will be generated by the emergency incident, provide warning signs to inform road users and minimise the potential for end of queue collisions.		Contractor's Traffic Control Personnel Contractor's CM	
TA-31	In the event of spillage, clear the spill whilst engaging appropriate safety standards as relevant to the event. Traffic will be directed around the incident.	Construction	Contractor's Traffic Control Personnel Contractor's CM Contractor's EM	CoC B2(g)
TA-32	In the event of inclement weather such as flooding, traffic control personnel may be utilised to manage traffic flows around the flooding and emergency road diversions will be out in place if necessary in consultation with Liverpool City Council and Roads and Maritime	Construction	Contractor's Traffic Engineer Contractor's Traffic Control Personnel	CoC B2(d) CoC B2(g)
TA-33	The process for maintenance and emergency repairs is: • Once damage that presents a safety risk is identified, the Site Supervisor and Contractor's PM will be notified • Site Supervisor will implement traffic control and safety measures to reduce the safety risk to the public • The Contractor's PM will notify Roads and Maritime and LCC of the safety issue • In consultation with Roads and Maritime and LCC, an appropriate repair plan will be agreed and implemented as soon as practicable.	Construction	Contractor's PM Contractor's Traffic Control Personnel Site Supervisor	CoC B2(g)(v)
TA-34	An emergency response plan must be developed by the Contractor for the upgrade of Moorebank Avenue to ensure that emergency vehicles using Moorebank Avenue have access to adjoining properties during construction.	Construction	Contractor's PM Contractor's Traffic Engineer Contractor's Traffic Control Personnel	MPW REMM 4N MPW EPBC CoA 5 a)
Unpredicted impacts				
TA-35	Construction vehicle movements, traffic controls and network conditions will be monitored, and additional management measures will be developed and implemented	Construction	Contractor's Traffic Engineer	CoC C7(e)

ID	Management Measure	Timing	Responsibility	Reference
	in response to any previously unpredicted impacts. Where necessary additional measures will be developed in consultation with Liverpool City Council and Roads and Maritime.		Contractor's Traffic Control Personnel	
TA-36	In the event that any unpredicted traffic and/or access related impacts and their consequences are identified, the following unpredicted impacts procedure will be implemented: • Stop work / vehicle / personnel involved immediately (or as appropriate) • Isolate the work area / vehicle if practical • Notify appropriate Project personnel (e.g. Contractor's Construction Manager, Contractor's Traffic Engineer) • Assess situation and implement remedial measures as required • Works to re-commence when impact is managed If necessary, update any processes / procedures / management measures associated with this Plan to consider unpredicted impacts.	Construction	All personnel to stop works Contractor's Traffic Engineer Contractor's CM	CoC C7(e)

4 MONITORING AND REVIEW

4.1 Monitoring

Monitoring under this CTAMP will be undertaken by the Contractor's Traffic Engineer during weekly inspections of construction activities to monitor conformance with the requirements of the CoCs and this CTAMP-B. Weekly inspection will focus on the following key issues:

- Safe movement of traffic
- Signage and barriers are clearly visible
- Construction roads support safe working and driving
- Safety of persons and property in and around the worksite.

Weekly inspections will be undertaken throughout Early Works and will be replaced by inspections identified in the Construction Traffic and Access Management Plan, once that plan is approved and implemented.

A Traffic Management Inspection Checklist will be used to maintain conformance and effectiveness of controls. Items that require action will be documented during environmental inspection and notified to the Site Supervisor. The Contractor's PM will be responsible for providing appropriate resources in terms of labour, plant and equipment to enable the items to be rectified in the nominated timeframes.

Traffic will be monitored on the road networks including traffic entering and departing the Construction Site and at key areas impacted by the Works. The Construction Contractor will appoint a traffic coordinator to monitor the networks.

The Traffic Manager will continuously monitor all traffic-related issues on Local Roads. These issues will be communicated to TMC and Local Councils on a regular basis. All incidents will be managed through an Incident Response Plan.

4.2 Site Inspections and Record Keeping

The construction works will be monitored to ensure that it proceeds as set out in the CTAMP. A daily inspection before the start of construction activity shall take place to ensure that conditions accord with those stipulated in the plan and that there are no potential hazards. Any possible adverse impacts shall be recorded and dealt with as they arise.

In addition to this, the Contractor's Traffic Manager will develop a system and calendar for inspections of the infrastructure, assets and road facilities. These may be planned formal inspections or random periodic inspections. The following details will be recorded:

- Infrastructure, assets facilities, amenities
- Nature and extent of any defects present
- Location of any defects
- Recommended report and maintenance activity
- Timing for any required repair or maintenance activity.

4.3 Non-compliance, Non-conformance and Actions

It is the responsibility of all personnel to report non-compliance and non-conformances to their supervisor and/or the Contractor's EM.

Non-conformances, non-compliance and corrective and preventative actions will be managed in accordance with Section 4.4 of the CEMP.

It is the responsibility of the Contractor's CM to immediately initiate corrective actions if required. The non-conformance or non-compliance and corrective action must include details of the action proposed, an appropriate close out date, inclusive of verification that delegated close out actions have been successfully implemented. The system notification report should be signed, dated and filed.

If such corrective and preventative action leads to further non-conformance, any further action will be subject to approval by the Contractor's CM in consultation with the Contractor's EM and the Health and Safety Manager.

4.4 Inspection of Traffic Controls

Temporary traffic controls will be regularly inspected by the Contractor's Traffic Engineer, to assess compliance and conformance with the conditions detailed in site or area TMP, TCP, ROL, SZA and to identify potential safety hazards to enable implementation of corrective solutions.

Daily inspections and maintenance of controls will be undertaken by the Site Supervisors and maintenance will be recorded in site diaries during active site works. The Site Supervisor will check required TMP, TCP, ROL and SZA are approved and on site prior to commencement of works each day.

4.5 Environmental Auditing and Reporting

Auditing and reporting will be undertaken in accordance with the CEMP.

The contractors will notify the Principal's Representative of any incident which has a negative impact on the regular flow of traffic on the road network in close proximity to the Project. This includes incident categories such as:

- Motor vehicle accidents (a report will follow within two days, unless otherwise agreed)
- Breaches of any ROL conditions of approval (as part of this CTAMP, it is envisaged that no ROL will be required)
- Impacts to the regular operation of public vehicles, cyclists or pedestrians from construction traffic management.

Safety incidents will be reported immediately to the Principal's Representative. The Contractor's Traffic Engineer will provide a schedule and status of current and future ROLs on a monthly basis. The forecast schedule will contain full details on locations and timing of all proposed road occupancies for the forthcoming month.

The Contractor's CM will provide a schedule to Principal's Representative on the estimated fill requirements and truck numbers for the coming fortnight, in accordance with the Fill Importation Management Protocol. The Principal's Representative will approve or revise the trucks and fill, in consultation with the Contractor's CM.

4.6 Review and Improvement

Review (both annually and intermittently) and improvement of this CTAMP will be undertaken in accordance with CoCs and Section 4 of the CEMP.

Any member of the project team, including sub-contractors can contribute and provide suggestions to the Construction Contractor's Management Team if they identify any recurring or systematic issues that require preventative action to be taken as outlined in Section 4.4.1 of the CEMP.

Continuous improvement will be achieved by the ongoing evaluation of environmental management performance and effectiveness of this CTAMP-B against environmental policies and the objectives, and targets identified in Section 1.6 of this CTAMP-B. Initiatives that improve performance and their effectiveness will be reported and/or assessed through daily observations, inspections, monthly environment reporting, compliance reporting, internal and external audits and monitoring as outlined in Section 4 of the CEMP.

Consistent with the requirements of CoC C8 and CoC C9, the CTAMP will be reviewed (and submitted to the Secretary for approval where required) in the following circumstances:

- At least one month prior to the commencement of a new phase of the development
- Within three months of:
  - the submission of an annual review under CoC C10;
  - the submission of an incident or non-compliance notification under CoC C13;

- the submission of an audit under CoC C18;
- the approval of any modification of the CoCs; or
- the issue of a direction of the Secretary under CoC A2;

Revisions to the CTAMP may also result from:

- CEMP and or CTAMP review
- Audits (either internal or by external parties)
- Changes to the environmental management system
- Changes to procedures, scope of works and/or systems after an incident or potential incident
- Design changes
- Early Works activity changes
- Changes in the CoCs
- Identification of opportunities for improvement of deficiencies in the project system (e.g. through the course of site inspections)
- Following complaints.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

APPENDIX A

EVIDENCE OF CONSULTATION

Roads and Maritime Services

Initial Comment Date	Comment	Arcadis Response – 5 June 2019	RMS Comments 4/09/2019 and 12/09/2019	Arcadis Response – 25 September 2019	RMS Comments - 29 November 2019	Arcadis Response – 3 December 2019
15 May 2019	The CTMP needs to meet the requirements of RMS G10 specification see attached G10 specifications document. This includes but not limited to Staging Arrangement Plans, Traffic Control Plans (including temporary signal plans), Vehicle Movement Plans, Pedestrian Movement Plans, Design Drawings, Incident Management Plans etc. Traffic Control Plans and Swept Path Analysis appendices were not supplied. The missing appendices are to be provided in line with RMS requirements.	Section 2.1 includes reference to RMS Specification G10. Where required, the CTAMP-B will achieve the requirements of RMS Specification G10 as follows: • Road Occupancy License (ROL) – Section 2.2.1 updated to reflect that, as per RMS Specification G10, applications for a Road Occupancy Licence will be made at least 10 working days prior to the planned commencement of the activity requiring the road occupancy. • Traffic Management Plans (TMP) – Section 2.2.1 updated to reflect that Traffic Management Plans (TMPs) will be prepared in accordance with Roads and Maritime QA Specification G10 and submitted at least 20 working days prior to the proposed date of submission for the ROL application for the proposed activity. • Traffic Staging Plans – Section 2.2.1 updated to reflect that Staging Plans will be submitted to RMS as part of the Traffic Management Plan submission, as applicable. • Traffic Control Plans (TCPs) - RMS Specification G10 outlines that TCPs, if not previously submitted as part of the TMP, must be submitted at least 3 working days prior to its proposed use. Section 3.3.1 updated to reflect that TCPs will be submitted with the RoL application at least 10 working days in advance of the works. • Vehicle Movement Plans (VMPs) – RMS Specification G10 outlines that a VMP may be incorporated into, or provided to RMS, with a TCP. Section 3.3.3 updated to reflect that the VMP is submitted to RMS along with the TCP at least 10 working days in in advance of the works. • Pedestrian Movement Plans (PMPs) – RMS Specification G10 indicates that pedestrian movement plans can be combined and superimposed on a TCP. Section 3.2.5 updated to reflect that the PMP is submitted to RMS along with the TCP at least 10 working days in in advance of the works. • Temporary Roadway Design Drawings – Section 2.2.1 updated to reflect that Temporary Roadway Design Drawings will be submitted to RMS as part of the Traffic Management Plan submission, as applicable. • Traffic Incident Management Plans – Section 3.3.6 included to reflect the RMS Specification G10 requirements for traffic incident management. • Swept Path Analysis – Section 2.1.1, Table 6 Conditions of Consent and Section 3.1.5 updated to reflect that swept path analyses will be provided to RMS with Detailed Vehicle Movement Plans (VMPs) at least 10 working days prior to the proposed activity, in accordance with Roads and Maritime QA Specification G10.	From the meeting between RMS and Tactical Group/Arcadis/Qube on 4/09/2019 it is understood that this CTAMP is only a document that provides general information on how subsequent Staging Arrangement Plans, Traffic Control Plans (including temporary signal plans), Vehicle Movements Plans etc will be prepared for review and approval by RMS. RMS is the approval body for these plans not TMC and will need to be prepared in accordance with RMS requirements. Please note that the lodgement of these plans 10 days prior to the commencement of Phase B construction works does not apply in this case and these documents needs to be submitted to the RMS to progress the Works Authorisation Deed (WAD) in accordance with condition of consent B14. Compliance with conditions of consent B2-B8, B10-12, B13, B14-20, B21-B24 is still relevant for the Phase B construction work and RMS will require these documents for review and approval as part of the WAD for the temporary diversion road and Moorebank Avenue Road upgrades. It is noted that a WAD has not yet been issued by RMS for the commencement of construction work associated with the temporary diversion road and the Moorebank Avenue upgrade works under Phase B. An ROL cannot be obtained prior to the WAD being issued by RMS. RMS advised on 4/09/2019 that these documents should be provided to the RMS WAD team as one package for review and approval as soon as possible to identify any safety issues regarding construction vehicle access arrangements proposed under the Phase B works. RMS previously provided comments on 2 March 2018 and 5 June 2018 regarding construction access for the Early Works + Phase A works. This matter can be closed off provided that DPI&E conditions that the applicant provides adequate information to the RMS WAD team (not TMC) prior to the issue of the WAD under condition B14 and prior to the issue of the Construction Certificate for road works associated with the temporary diversion road and the Moorebank Avenue Road upgrades. Any changes to the access arrangmements for the MPE Early Works + Phase A works is a compliance matter with DPI&E.	CTAMP-B updated throughout to reflect that plans associated with the activities outlined in CoC B13 should be provided to RMS in line with the Works Authorisation Deed (WAD) process required under CoC B14. CTAMP-B updated throughout to reflect that plans required for all other activities outside of those outlined in CoC B13 will be prepared in accordance with Roads and Maritime QA Specification G10. RMS comments regarding compliance with CoC B2-B8, B10-12, B13, B14-20, B21-B24 are noted. Compliance with the requested CoC are now reflected in Section 2.1 Compliance Matrices Table 6 Conditions of Consent. Note that the following CoC have not been included, as these are not considered to form a part of the scope of this CTAMP: • B11, which relates to the design of operational car parking bays • B12, which relates to the design of permanent infrastructure • B18, which relates to costs associated with traffic lights and road upgrade works listed in CoC B13 • B21-B24, which relate to Moorebank Avenue Public Road Dedication and administrative arrangements required between the RMS, TfNSW and the Applicant.	RMS acknowledges that the CTAMP-B has been updated. However, compliance with conditions B21-B24 is still required prior to execution of the WAD by RMS and prior to the PCA issuing a CC for the commencement of works on the temporary diversion road and the Moorebank Avenue upgrades. This needs to be updated in the CTAMP-Phase B. Detailed traffic management plans, temporary traffic signals plans, etc still need to be submitted to the RMS Developer Works team for review and approval as part of the WAD for MPE Stage 1 + 2 temporary and permanent road and traffic signals work (including associated utility works).	Reiterate previous comment and refer to specific conditions being addressed for this CTAMP-B. It is noted that detailed traffic management plans, temporary traffic signals plans, etc still need to be submitted to the RMS Developer Works team for review and approval as part of the WAD for MPE Stage 1 + 2 temporary and permanent road and traffic signals work (including associated utility works). It is noted that these submissions are required prior to the commencement of the works on the temporary diversion road and the Moorebank Avenue upgrades. These submissions will occur in due course and are not considered essential to the approval of this plan. It is noted, as per Section 2.2.1 Road Occupancy Licence, that Traffic Management Plans (TMPs) associated with the activities outlined in CoC B13 should be provided to RMS in line with the WAD process required under CoC B14. It is not, however, considered that these detailed plans need to be submitted as part of the approval of CTAMP-B. No further plan updated proposed.

Initial Comment Date	Comment	Arcadis Response – 5 June 2019	RMS Comments 4/09/2019 and 12/09/2019	Arcadis Response – 25 September 2019	RMS Comments - 29 November 2019	Arcadis Response – 3 December 2019
		Notes/ actions from meeting 17/07/2019 • Response satisfies minimum requirements of G10 for Traffic Management Centre (TMC) approvals • RMS requested that a package of documents (access arrangements, traffic signal staging, VMS locations and traffic staging) that will inform the TMPs and TCPs is provided as early as possible for RMS to review so approvals are not held up **ACTION:** Arcadis to update report to note the requirement for additional review time (on top of G10 minimum requirements) and communicate to contractor that documents are to be sent as package as early as is possible. An additional sub-section has been included at Section 3.3 which specifies that traffic management plans which require review from RMS should be packaged together. In addition, it has been detailed that the contractor should allow additional review time beyond the minimum specified in RMS specification G10.				
15 May 2019	The CTMP is to consider / address requirements within the SSD conditions.	Section 2.1.1, Table 6 Conditions of Consent demonstrates how this CTAMP complies with the requirements of SSD 7628 Conditions of Consent. **Notes/ actions from meeting 17/07/2019** **ACTION:** RMS to review the table referenced in the response and confirm close out of this comment.	Review of Table 6: The applicant states that a swept path analysis has been undertaken that demonstrates compliance with this condition. However, the swept path analysis has not been provided to RMS for review. This information needs to be provided as part of the WAD documentation and not the ROL application. Therefore the "10 days prior to proposed activity" is not correct and the mentioned swept path analysis should be submitted to the RMS WAD team. RMS notes that Table 6 Conditions of Consent does not include compliance with conditions B11, B12, B13, B14, B15, B16, B17, B18, B19, B21, B22, B23, B24 - these conditions relate to the construction of the temporary diversion road and Moorebank Avenue Road upgrades subject to this CTAMP Phase B. Compliance with these conditions are part of the RMS WAD process and DPI&E will need to be satisfied that relevant RMS approvals/compliance with these conditions have been undertaken prior to any Construction Certificate being issued for the temporary diversion road and Moorebank Avenue upgrade works	Table 6 Conditions of Consent updated to reflect that swept path analysis using the largest construction vehicle will be undertaken for all proposed temporary construction access points along Moorebank Avenue in advance of the works and submitted to the RMS or TMC in line with the process outlined in Section 3.1.5.	RMS acknowledges that the CTAMP-B has been updated and has no further comment provided that the necessary detailed swept paths for both construction access points are provided to RMS for review and comment as part of the WAD for MPE Stage 1 + 2 temporary and permanent road and traffic signals work. The developer may be required to undertake mitigation measures if the swept paths cannot demonstrate that the 26m design vehicle can undertake safe and simultaneous entry/exit movements at both construction access points. Please note that the swept paths prepared by Northrop dated 09.09.19 (Figures 2.01, 2.02, 2.03 REV C) for the interim access cannot be used for the proposed northern construction vehicle access because it is deficient in details to undertake a review.	Noted. No further plan updates proposed. As outlined in CTAMP-B Section 3.1.5, swept path analyses for construction access points will be provided as part of the WAD process, as requested.
15 May 2019	Safety In Design Workshop is to be arranged by the proponent prior to commencement of construction work. An independent WHS consultant is to facilitate the workshop and all effected stakeholders (not limited to) including RMS, TMC, Utilities Providers, Council etc are to attend.	A Health and Safety in Design (HSID) workshop was performed as part of a design review with RMS in attendance in April 2018. The report was completed and provided to RMS. As required under the WAD a further HSID workshop is to be held at the 85% Substantial Detailed Design (SDD) stage. **Notes/ actions from meeting 17/07/2019** • Comment closed • RMS recommended stakeholders are included in the workshop to streamline the approvals process for ROLs and ensure all safety risks are captured.	This matter can be dealt with under the WAD process and can be closed out for this CTAMP	Noted	No further comment - will be dealt with as part of the WAD for MPE Stage 1 + 2 road works.	Noted. No further plan updates proposed.
15 May 2019	Trip Distribution figures with clear assumptions at each intersection	Trip distribution figures are included and available in the approved MPE Stage 2 EIS.	It is noted that Section 3.1.8. states that all trip distribution for Phase B construction works will be	The assumption is that the even hourly distribution extends through the peak	The requested information regarding expected traffic volumes at the two	Noted. No further plan updates proposed. As per the RMS comment,

Initial Comment Date	Comment	Arcadis Response – 5 June 2019	RMS Comments 4/09/2019 and 12/09/2019	Arcadis Response – 25 September 2019	RMS Comments - 29 November 2019	Arcadis Response – 3 December 2019
	within the study area should be provided (heavy vehicle breakdown to be included).	**Notes/ actions from meeting 17/07/2019** **ACTION:** Arcadis to update report to include the traffic data and distribution in the EIS so that this report is stand-alone The construction traffic estimated during the peak construction period is included in Section 3.1.8 and commentary on the approach route of construction vehicles was added in this section based on the EIS approach route, with all vehicles travelling to the site from the north only.	from the north. Is this for both construction worker and heavy vehicle movements to the development site, noting that the conditions of consent only restrict heavy vehicles movements to/from the north? Will some construction workers access the site via Cambridge Avenue and how will access be enforced so that they only come to the construction site from the north? This section does not specify how may construction vehicle and heavy vehicle movements are expected for the AM and PM peak periods - only provides an assumed even distribution of light and heavy vehicle movements between 7am and 5pm when it is likely that the majority of the construction worker access will be during the AM and PM peak periods. How will the "worst case scenario peak construction period up to 2,600 vehicle movements per day" be dealt with during the construction of the temporary diversion road and Moorebank Avenue upgrades being assessed by RMS under the WAD process? Can the proposed access points and lane arrangements adequately handle this many vehicle during the AM and PM peak periods? How many light + heavy vehicles movements will there be at the two construction access points shown on Figure 3-2 and can they safely accommodate these movements? Adequate trip distribution information will need to be submitted to the RMS WAD team so that they can determine that there is adequate queue storage space on the existing Moorebank Avenue lane arrangement (and for any proposed changes to the Moorebank Avenue intersection and lane arrangements during the construction of the temporary diversion road and Moorebank Avenue upgrades) for light + heavy construction vehicle movements. Please not that this matter will not be approved under an ROL with TMC but with the RMS WAD team.	hours for Heavy Vehicles only. Consequently, around 85 heavy vehicles in each direction will access the site through morning and afternoon period.	construction access points has not been provided in the latest submission. It is noted that the submitted SIDRA file indicates that there are 35 heavy vehicle movements in/out and 0 light vehicle movements in the AM and PM peaks. Based on the information provided in section 3.1.8 there would be at least 102 heavy vehicle movements in/out for the peak periods and more than 0 light vehicle movements (excluding all the various commissioning and operations traffic movements from the IMEX terminal and warehousing). It is not clear why such low traffic vehicle numbers were used in the submitted SIDRA file for the northern construction access point. It is also not clear why the southern construction access point at the Moorebank Avenue/Chatham Road intersection was not included in the submitted SIDRA file. This matter will need to be resolved prior to the developer submitting the detailed traffic management plans to RMS for review and approval as part of the WAD. It is noted that there have been physical works undertaken on Moorebank Avenue at the proposed northern construction access point and the left turn slip lane has been removed on the northern leg of the existing signalised intersection. Any further physical changes undertaken at the proposed construction points prior to the execution of the WAD and procurement of land dedication/registration of easement will be a liability/compliance matter for DPI&E and Qube/MIC/Commonwealth.	this is to be completed (additional modelling) as part of the detailed Traffic Management Plan to satisfy the requirements of the WAD.
15 May 2019	SIDRA outputs are required. Table 19 & 20 Peak intersection performance results: The Level of Service (LoS) column does not corresponds to Delays as per the standard threshold values of LoS vs Average Delays. Please verify and revise accordingly.	The Level of Service (LoS) columns in Tables 19 and 20 have been updated to reflect the RMS threshold for delay. **Notes/ actions from meeting 17/07/2019** Comment closed	Comments are closed	Noted.	Noted.	Noted.
15 May 2019	Section 3.1.6 what is the alternative route should the nominated route be unavailable?	Section 3.1.6 Fill Haulage Routes / Vehicle Movement Plan updated to include a proposed alternative route, as follows: *Heavy vehicles would travel north along Moorebank Avenue, over the M5 Motorway as far as the intersection with Newbridge Road. Vehicles would then turn right onto Newbridge Road (which becomes Milperra Road and then becomes Canterbury Road) and then turn right onto either King Georges Road or Bexley Road and then turn left onto the M5 and follow prior to following the standard nominated route.*	Alternative access route shown on Figure 3-2 noted	Noted.	Noted.	Noted.

Initial Comment Date	Comment	Arcadis Response – 5 June 2019	RMS Comments 4/09/2019 and 12/09/2019	Arcadis Response – 25 September 2019	RMS Comments - 29 November 2019	Arcadis Response – 3 December 2019
		Notes/ actions from meeting 17/07/2019 **ACTION:** Arcadis to confirm alternative route can serve buses **ACTION:** Arcadis to include map to coincide with text The alternative route can service heavy vehicles and buses. This has been stated in the report in Section 3.1.6. Fig 3-2 Vehicle Movement Plan updated to reflect access to and from site and reflect that the nominated route and alternative route can be used by buses.				
15 May 2019	Section 3.2.1 states that the Baseline Peak hour traffic volumes are used from 2015 LMARI traffic model and updated to reflect 2017 data for revised traffic analysis. The traffic volumes should be based on current/recent surveys to simulate the current conditions.	For comparable projects, the approved EIS assessment has been acceptable to provide the basis of the CTAMP. The SIDRA analysis carried out for the approved SSDA has since been revised in 2018 to provide the base figures for the CTAMP. It is not proposed to re-run either the SIDRA analysis carried out for the approved SSDA or the 2018 revision. The development is progressing in accordance with the determined yield and updating the analysis is not considered to be a requirement for the purpose of this report. The biannual data collection specified in the Moorebank Precinct East – Biannual Trip Origin Destination Report, Framework for Data Collection and Reporting includes regular data collection to get updated traffic information that could be compared with the EIS forecasts as required. **Notes/ actions from meeting 17/07/2019** • RMS confirmed that older data could be used as a basis for the assessment, provided it is factored up to at least 2018 • **ACTION:** Arcadis to ensure the OTAMP and CTAMP base models and data are consistent. • **ACTION:** Arcadis to provide SIDRA files to RMS SIDRA files have been provided. Arcadis confirms that the OTAMP and CTAMP base models and data are consistent. Note, however, that the OTAMP uses AIMSUN modelling and the CTAMP uses SIDRA modelling Therefore, base models use different platforms.		No comments provided by RMS in previous column.	As mentioned earlier the submitted SIDRA file only provides the proposed construction access at the future signalised IMEX terminal intersection and does not include the Chatham Road/Moorebank Avenue intersection. Roads and Maritime will require correct intersection layouts, details of updated light and heavy vehicle movements, etc at both access points for the traffic management plans yet to be submitted for the WAD. Of interest is how a 26m construction vehicle will be turning left in from Moorebank Avenue/right out onto Moorebank Avenue at the northern construction access, and the right turn movements into the construction site from Moorebank Avenue at the southern construction access point. It is important that there is an understanding of the existing traffic volumes for the existing Moorebank Avenue (prior to the physical works that have been undertaken over the last couple months, and how the proposed construction access points can safely and efficiently accommodate the cumulative construction traffic. The interim access arrangement for Target and the IMEX terminal have not been considered in this CTAMP-Phase B and should be dealt with in the supplementary CTAMP that is to be submitted for the MPE Stage 2 MOD application.	Noted. No further plan updates proposed. This is to be completed (additional modelling and heavy/ oversized vehicle access arrangements) as part of the detailed Traffic Management Plan to satisfy the requirements of the WAD. Correct intersection layouts, details of light and heavy vehicle movements and a demonstration of how the proposed construction access points can safely and efficiently accommodate the cumulative construction traffic will be provided as part of the detailed traffic management plans to be submitted as part of the WAD. As per the RMS comment, interim access arrangements will / are being managed as part of the MPE Stage MOD 1 application.
15 May 2019	Section 3.2.4 how will diversions impact traffic impact reduction strategy (3.3.5)? What are the alternative routes proposed?	Section 3.3.5 Traffic Impact Reduction Strategy updated to remove references to the use of public transport. **Notes/ actions from meeting 17/07/2019** Comment closed	Comments are closed	Noted.	Noted.	Noted.
15 May 2019	Section 3.2.5: the proponent is to Identify the alternate route for pedestrian and bicycle paths during Moorebank Avenue road diversion works.	As per Section 3.2.5 Pedestrian and Cyclist Access, pedestrian and cyclist access will not be maintained during construction of the Moorebank Avenue Diversion Road. As outlined above, PMPs will be provided to RMS for information in advance of works occurring prior to and following construction of the diversion road. **Notes/ actions from meeting 17/07/2019**	Detailed Pedestrian Movement Plans (PMPs) are required to be prepared and submitted with the TCPs to the RMS WAD team for review and approval under the WAD process for the construction of the temporary diversion road and Moorebank Avenue Road upgrades. This will not be approved by TMC under an ROL application. Please provide this information to the RMS WAD team. This matter can be closed off provided that	CTAMP-B Section 3.2.5 Pedestrian and Cycle Access updated to reflect that Detailed Pedestrian Movement Plans (PMPs) associated with the activities outlined in CoC B13 should be provided to RMS in line with the Works Authorisation Deed (WAD) process required under CoC B14.	No further comment - will be dealt with as part of the WAD for MPE Stage 1 + 2 road works.	Noted. No further plan updates proposed.

Initial Comment Date	Comment	Arcadis Response – 5 June 2019	RMS Comments 4/09/2019 and 12/09/2019	Arcadis Response – 25 September 2019	RMS Comments - 29 November 2019	Arcadis Response – 3 December 2019
		ACTION: Arcadis to revise response to reflect that pedestrian and cyclist access is maintained Section 3.2.5 updated in Version H as follows: Suitable pedestrian and cyclist access will be provided at all times for the duration of the Moorebank Avenue Upgrade works, with access managed using the Roads and Maritime G10 specification. Detailed Pedestrian Movement Plans (PMPs) are required to be prepared and submitted with the TCPs, at least 10 working days prior to the proposed activity, in accordance with Roads and Maritime QA Specification G10. The alternative pedestrian and cyclist pathways will require adjustment at various stages throughout construction of the diversion road and during its operation, and as such an updated PMP will be prepared as required.	DPI&E conditions that the applicant provides adequate information to the RMS WAD team (not TMC) prior to the issue of the WAD under condition B14 and prior to the issue of the Construction Certificate for road works associated with the temporary diversion road and the Moorebank Avenue Road upgrades.			
15 May 2019	Section 3.3.3 vehicle movements are unclear, more information required on access and direction.	Section 3.3.3 Vehicle Movements updated to include the text below. *All vehicles are to enter and exit the Project Site in a forward direction at the site access points identified on Figure 3-2. Vehicles are only permitted to turn left into the Project Site and turn right into the Project Site if coming from the MPW Project Site. Vehicles are not permitted to turn right into the Project Site if they have used Cambridge Avenue. Vehicles will not be permitted to reverse onto the Project Site. The Vehicle / Heavy Vehicle Movement Plans are provided in Figure 3-2 and Figure 3-3.* **Notes/ actions from meeting 17/07/2019** **ACTION:** Arcadis to update figure to illustrate vehicle access arrangements Section 3.3.3 updated in Version H to clarify the vehicle movements and access routes. Figure 3-2 Vehicle Movement Plan and Figure 3-3 Vehicle / Heavy Vehicle Movement Plan (indicative Spoil Sources) updates to demonstrate access to and from site.	1. Section 3.3.3 states "All vehicles are to enter and exit the Project Site in a forward direction only at the site access points identified on Figure 3-1. Access to the MPE Site, east of Moorebank Avenue is managed via a signalised intersection or turning lane. Access to the western side of Moorebank Avenue is via a turning lane at Chatham Avenue in the south or Bapaume Road to the north of the Project Site." RMS notes that the existing traffic signals for the MPE site are turned off and any traffic control works within the signalised intersection requires RMS approval under Section 87 of the Roads Act, 1993 (regardless of the current ownership status of Moorebank Avenue). The applicant also needs to confirm whether upgrades are required at Chatham Avenue prior to construction vehicles accessing this intersection - RMS previously requested that this intersection is upgraded to accomodate construction vehicles under SSD 16-7709 RMS response dated 15/09/2016 RMS reference SYD12/00072/08. Section 3.3.3 and Figure 3-1 do not provide adequate information regarding how the longest vehicles will be simultaneously entering/exiting these construction access points under the current lane and intersection arrangmeents on Moorebank Avenue. it is not clear whether intersection upgrades/traffic control measure are required to be in place prior to construction vehicles entering/exiting these sites. Swept paths (without kinks) for the longest vehicles overlayed on a plan with the existing configurations on Moorbank Avenue (and any proposed upgrades to accomodate construction vehicles) with dimensions should be provided for further review to the RMS WAD team. This is a road safety matter that needs to be adeqautely satisfied prior to the issue of the RMS WAD and issue of the Construction Certificate by DPI&E for the Phase B works.	The RMS comment regarding existing traffic signals facilitating access to the eastern side of the MPE site is noted. It is also noted that any traffic control works within the signalised intersection requires RMS approval under Section 87 of the Roads Act, 1993 (regardless of the current ownership status of Moorebank Avenue). Note that construction upgrades required to Chatham Avenue or alternative access points for the purpose of Phase B (Moorebank Avenue Upgrade Works) will be managed under the WAD process. This detail does not fall within the scope of this CTAMP. RMS comments regarding the need for swept path analyses are noted. Section 3.3.3 Vehicle Movements updated to reflect that VMPs associated with the activities outlined in CoC B13 should be provided to RMS in line with the WAD process required under CoC B14 and be supported by swept path analyses that will confirm vehicles are able to enter and exit the Project Site in a forward direction for all stages of construction. RMS comments regarding construction vehicle access under Early Work and Construction Phase A are noted. All existing site access should be undertaken in accordance with the approved CTAMP-A, which includes within its scope Early Works. Any changes to construction vehicle access as detailed in CTAMP-A is discussed with the Environmental Representative or DPIE, as applicable. Note that the current review under review (CTAMP-B) relates to Construction Phase B.	The applicant and DPI&E should be advised that any physical mitigation works deemed necessary to provide safe access for construction vehicle movements at the proposed construction access points in the CTAMP-B may require additional planning approval, in addition to the MPE Stage 1 + 2 SSDs. There is not enough information within this updated CTAMP-B document to properly assess whether additional mitigation works are required at the proposed construction access points. Roads and Maritime notes that it is not yet the Roads Authority for this section of Moorebank Avenue until the permanent land dedication and temporary easement under conditions B21-B24 are procured.	Noted. No further plan updates proposed. This is to be completed (heavy/ oversized vehicle access arrangements and physical upgrades to accommodate turning movements) as part of the detailed Traffic Management Plan to satisfy the requirements of the WAD.

Initial Comment Date	Comment	Arcadis Response – 5 June 2019	RMS Comments 4/09/2019 and 12/09/2019	Arcadis Response – 25 September 2019	RMS Comments - 29 November 2019	Arcadis Response – 3 December 2019
			Construction vehicle access under Early Works and Phase A are supposed to be in accordance with Early Works Traffic and Access Management Plan Moorebank Precinct East Stage 2 – 5th February 2018 and Construction Traffic and Access Management Plan Moorebank Precinct East Stage 2 – 7th March 2018. Any changes to the construction vehicle access arrangements for MPE Early Works + Phase A will need to be discussed with DPI&E as a compliance matter. Section 3.3.3 also states "Detailed Vehicle Movement Plans (VMPs) are required to be prepared and submitted with the TCPs, at least 10 working days prior to the proposed activity, in accordance with Roads and Maritime QA Specification G10. These VMPs will be supported by swept path analyses that will confirm vehicles are able to enter and exit the Project Site in a forward direction for all stages of construction." This will not be approved by TMC under an ROL application. Please provide this information to the RMS WAD team. This matter can be closed off provided that DPI&E conditions that the applicant provides adequate information to the RMS WAD team (not TMC) prior to the issue of the WAD under condition B14 and prior to the issue of the Construction Certificate for road works associated with the temporary diversion road and the Moorebank Avenue Road upgrades. It is noted that the applicant states in Table 6 that swept path analysis has been undertaken, but this information has not been supplied in the CTAMP.	As outlined above, CTAMP-B updated throughout to reflect that plans associated with the activities outlined in CoC B13 (including VMPs) should be provided to RMS in line with the WAD process required under CoC B14. Further information will be provided according to DPI&E conditions, to the RMS WAD team (not TMC) prior to the issue of the WAD under condition B14 and prior to the issue of the Construction Certificate for road works associated with the temporary diversion road and the Moorebank Avenue Road upgrades.		
15 May 2019	Section 3.3.9 TfNSW are to be included as a key stakeholder.	TfNSW to be included as a key stakeholder in Section 3.3.10. **Notes/ actions from meeting 17/07/2019** Comment closed	Comments are closed	Noted.	Noted.	Noted.

Liverpool City Council (Revision B dated 12 March 2019)

Comment date	LCC Comment	SIMTA response	Response date
26 May 2019	Arrangement to highlight the 5T load limit along Anzac Road has not been addressed, improvement works to minimise are yet to be carried out and a timeline for these works have also not been outlined	The plan effectively prohibits the use of large vehicles on Anzac road, but the weight is not specifically referenced. The CTAMP-B states that "*No heavy vehicles will use Anzac Road*.", included in Section 3.1.6.	5 June 2019

APPENDIX B

DRIVERS CODE OF CONDUCT

Purpose and Objective

The Driver's Code of Conduct aims to minimise the impacts of construction traffic on the external road network, including adjoining properties. The purpose of this Code is to promote and encourage safe driving practices as well as define and detail acceptable behaviour and procedures for all heavy vehicle drivers associated with the construction of the Project.

Responsibilities of Drivers

- Drivers are to follow **ALL** rules and regulations required by law including:
  - Hold a current and valid license for the vehicle class they are operating
  - Always carry your current driver's license with you while you are on duty
  - Comply with all posted and/or Road Work speed limits on all roads
  - Adhere with the posted vehicle load limits on all roads
  - Comply with all construction traffic signs and devices
  - Do not overload vehicles beyond its maximum load limits and/or relevant approvals
- Drivers are to practise safe driving and behaviour which includes, but is not limited to:
  - Comply with State road regulations and the Australian Road Rules and any other directives issued by the Principal's Representative
  - Driving in a manner that is appropriate with road and weather conditions
  - Not operating any machines whilst suffering from fatigue or under the influence of drugs and/or alcohol.
- Drivers must behave in a professional manner at all times. No yelling at others.
- Drivers must adhere to the approved nominated routes for each specific construction activity and consistent with the CTAMP (refer to Figure 3-3) and they must not use roads if their weight is over the posted load limit
- No access from Cambridge Avenue will be permitted, as per CoC B2(h)
- Drivers must not consume or be under the influence of alcohol or drugs whilst on duty
- Heavy vehicles for construction of the Project must use designated haul routes on classified roads
- Drivers are to avoid queuing in or around the site and limit the need for reversing on site
- Drivers are to enter the site before stopping and are not to queue on any public road, unless approved and agreed with relevant authorities (e.g. Roads and Maritime and Local Councils).
- Drivers are to arrive and depart from project construction sites during approved construction hours, 7 am to 6 pm Monday to Friday and 8 am to 1 pm on Saturday, unless otherwise approved with relevant authorities. Drivers will be turned away if they arrive outside of approved hours.
- Drivers making material deliveries are to arrive and depart during approved extended work hours, 6am to 10pm, Monday to Friday, and 7am to 5pm on Saturday, unless otherwise approved with relevant authorities. Drivers will be turned away if they arrive outside of approved hours.
- Drivers must never leave the vehicle with the engine running. Drivers parking are to engage the park brake and leave the vehicle in gear.
- Drivers must adhere to the 20km/hr speed limit on site, unless stated otherwise
- Drivers must attempt to limit the amount of reversing that they undertake on site.
- Drivers must not use engine braking on or within the vicinity of site.
- Drivers leaving their vehicle must wear appropriate personal protective equipment.
- Drivers must enter and exit the site gates in a forward direction, in accordance with CoC B7. Under no circumstances are drivers allowed to reverse onto a public road, unless approved by the relevant authorities.
- Vehicles must not transfer dirt or debris onto public roads. If any materials are deposited on the roads, then the Superintendents/ Supervisors/ Foremen must be contacted immediately.

- All drivers must carry out their duties in a way which does not adversely affect their health and safety or that of others
- All drivers must only perform tasks for which they have authorisation and/or the necessary training, and for which all necessary safety arrangements are in place
- All trucks entering site must have their loads covered from the point of origin
- Prior to leaving site covering truck loads is mandatory and when required, tailgates must be swept clean before leaving site.
- If approached by individuals with enquiries about the Project, drivers are not to engage with the individual beyond providing them with the Community Liaison Manager contact details.
- As a courtesy to individuals who may be impacted by driver behaviour, drivers will:
    - Not use compression braking unless it is an emergency situation
    - Ensure no extended periods of idling
    - Ensure that there is no littering
    - Remain calm and courteous when in contact with other members of the public
    - Maintain trucks in good working order and a clean and tidy condition
    - Not block residential driveways or any other access points.

Monitoring

At the commencement of each shift or day's work, drivers will attend a Tool Box meeting held by the supervisor, where drivers will be updated on Work Health and Safety issues that may have arisen from the previous shift or day's work. In addition to this, supervisors will be required to undertake formal observations / review of compliance at three monthly intervals and document and undertake any remedial actions with personnel as required.

Failure to comply with this Driver's Code of Conduct may lead to either the issue of a warning notice or disciplinary action.

Some non-compliances may also carry penalties such as fines and demerit points under the Road Rules and environmental protection legislation.

This Code will be reviewed after six months of operation and updated as required.

APPENDIX C

PROTOCOL FOR UNDERTAKING DILAPIDATION SURVEYS AND REPAIR

Purpose and Objective

For the purpose of the Project, a Dilapidation Survey will be conducted prior to the commencement of any construction activities to provide a visual assessment of the existing condition of surrounding road infrastructure and facilities on the basis of the prevailing structural, soil and weather conditions at the time of the survey.

Following completion of construction activities, a post-construction Dilapidation Survey will be conducted to assess potential damage that may have resulted from the construction of the Project.

Procedure

An on-site inspection will be carried out as part of the Dilapidation Survey (before construction and following construction) to record existing cracks and/or defects found at the time of the survey. The survey will be generally confined to those parts of the Roadway, which are reasonably accessible at the time of the survey. A Dilapidation Survey Report will be prepared to present the findings of the assessment, including providing photographic record of existing cracks and/or defects.

The Dilapidation Survey will take into account the following (but not limited to):

- Kerb and gutter (likely to be within a vehicle/s path)
- Speed humps
- Existing vegetation
- Street furniture
- Any existing damage to road pavement or road furniture
- Existing potholes/pavement damage
- Cracking and rutting
- Road pavement deflection testing of the construction truck routes at 20 m intervals along all wheel paths
- Any existing structures
- Any existing damaged items.

The Dilapidation Survey Report will be submitted to the Secretary and Local Councils for information prior to the use of local roads for construction traffic. Following the completion of the construction activities, an updated Dilapidation Survey Report will be prepared to assess any damage that may have resulted from the construction of the Project. The Contractor will be responsible to restore or reinstate roads affected by the Project in a timely manner, in accordance with the reasonable satisfactory of the relevant authorities.

Criteria and Timing

Throughout Early Works, the Contractor shall monitor the roads on a monthly basis. Any damage caused by the Early Works will be raised to the relevant Council and/or Roads and Maritime representative to seek permit approvals/concurrence to allow for remediation works. Once the road is repaired, photos will be taken and recorded in accordance with the maintenance procedure, as shown in the figure below.

The defects shall be categorised as low to high risk, with high risk defects actioned within 24 hours. The defect rating classification is described the table below.

The Contractor will then inform the relevant authorities to inspect the works.

Defect Rating	Description	Response Time
High	Defect may cause serious injury or large-scale property damage.	Within 24 hours
Medium	Noticeable cracks/defects which can be readily filled/rectified. Defect is unlikely to cause injury/property damage.	Within 2 weeks
Low	Fine and hairline cracks/defects which do not need repair.	No works required. Typical wear and tear.

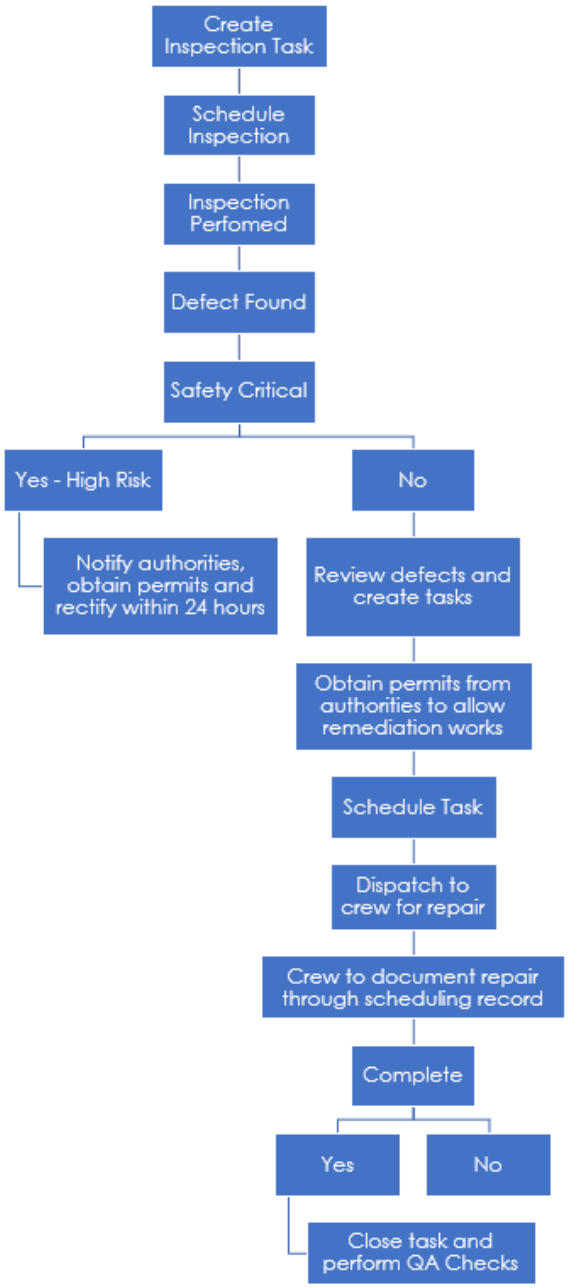
Maintenance and/or Emergency Repairs

Maintenance and/or emergency repairs will be undertaken upon the completion of the construction works or as soon as practicable, where the damage represents a safety risk. The process will include the following:

- Once damage that presents a safety risk is identified, the Site Supervisor and Contractor's PM will be notified
- Site Supervisor will implement traffic control and safety measures to reduce the safety risk to the public
- The Contractor's PM will notify Roads and Maritime and LCC of the safety issue
- In consultation with Roads and Maritime and LCC, an appropriate repair plan will be agreed and implemented as soon as practicable.

Restoration and repair of roads affected by the construction works will be undertaken in a timely manner in accordance with Council and Roads and Maritime requirements at the expense of the Contractor.

Reporting Protocol



APPENDIX D

FILL IMPORTATION MANAGEMENT PROTOCOL

According to the FCMM 1G, importation of fill to site during construction of the MPE Stage 2 site (SSD 7628) is to not exceed a total of 22,000 m^3 of material per day. This limit is to be further reduced by an amount equivalent to any fill being imported to the MPW Stage 2 Proposal (SSD 7709) on the same day such that the combined importation of fill to the MPE Stage 2 site and MPW site does not exceed 22,000 m^3 on any given day.

Purpose and Objective

This protocol outlines the procedures for the management of fill importation to the Moorebank Precinct Project. This document is to be referenced with the:

- Early Works Traffic and Access Management Plan (EWTAMP)
- Early Works Spoil Management Plan (EWSpMP)
- Early Works Soil and Water Management Plan (EWSWMP)
- Construction Traffic and Access Management Plan (CTAMP)
- Construction Spoil Management Plan (CSpMP)
- Construction Soil and Water Management Plan (CSWMP).

Procedure

To ensure the importation of fill (i.e. volumes and truck movement) is documented and carried out in accordance with the Moorebank Precinct East and Moorebank Precinct West project requirements, the following must be implemented:

- Construction Contractor to forecast fill import volume and truck movement requirements
- Principal's Representative to review and allocate fill volumes and truck movements amongst the Construction Contractors operating on site
- Monitoring of total fill volumes and truck numbers at the gate by the Construction Contractor(s)
- Reporting total fill volumes and total truck numbers by the Construction Contractor(s) to the Principal's Representative.

Forecasting Fill Import Requirements

The Construction Contractor will forecast the daily fill requirements (in m^3) for the Construction Contractor's operating site. The Construction Contractor will send an email to the Principal's Representative on the first working day of each fortnight with the estimated, daily fill requirements for the following fortnight. The Principal's Representative will review the estimated fill import requirements for each of the operating sites. The Principal's Representative will then either sign off on the estimated fill volumes or request changes to the fill volumes for the respective operating site via email.

Forecasting Truck Movement Requirements

The Construction Contractor will forecast the daily truck movements required for fill importation for the Construction Contractor's operating site. If applicable to the operating site, the daily truck movements required for other construction activities should also be estimated. The Construction Contractor will send an email to the Principal's Representative on the first working day of each fortnight with the estimated, daily truck movements for the following fortnight, including a forecast of expected truck numbers to Glenfield Waste Facility. The Principal's Representative will review the estimated truck movement requirements for each of the operating site. The Principal's Representative will either sign off on the estimated truck movements or request changes to the truck movement for the respective operating site via email.

Monitoring Material as it Enters the Site

The following will apply at the Construction Contractor's operating site:

- Only material classified as virgin excavated natural material (VENM), excavated natural material (ENM) or other material approved by Environment Protection Authority (EPA) will be permitted on the operating site. No imported fill is permitted to enter the site without proving a waste classification report.
- Site Supervisor (or delegate) will be advised on the source and relevant truck details for each truck supplying fill to the site
- Each truck load will be visually inspected by the Site Supervisor (or delegate) as it enters the site and as it is tipped to confirm the consistency with the approved material.
    - Should any non-complying material be identified during the inspection, the material will either be reloaded and returned to the supplier or be assessed for waste classification prior to off-site disposal to an appropriate landfill facility at the cost of the source site supplier.

Each truck load will be documented by the Supervisor (or delegate) in the Imported Fill Tracking Register (or similar tracking documentation) including:

- Date
- Time in and out of truck hauling imported fill
- Truck registration details
- Source of imported fill
- Material type and classification
- Details of the statement of compliance under the *NSW EPA The excavated natural material order 2014*
- Volume of imported fill
- Location of stockpiled imported fill
- Location of final destination of imported fill
- Details of any sampling performed for purposes of certification.

Photographs and / or location drawings of the imported fill.

Reporting and Documentation

The following reporting / documentation will apply to the fill importation:

- Waste classification forms:
    - Completed by the supplier (must be suitably qualified professional) for each truck load
    - Completed in accordance with the *NSW EPA Waste Classification Guidelines 2014* and *NSW EPA The excavated natural material order 2014.*
- Imported Fill Tracking Register (or other similar tracking documentation):
    - Completed daily by the Site Supervisor during fill importation activities
- Total daily fill volumes and truck numbers to site:
    - Reported to the Principal's Representative by the Site Supervisor via email daily
- Total daily waste volumes and truck numbers to Glenfield Waste Facility:
    - Reported to the Principal's Representative by the Site Supervisor via email daily
- Total fortnightly fill volumes and truck numbers:
    - Reported to the Principal's Representative by the Site Supervisor via email fortnightly

- Validation exercise and check between the daily reporting.

All documentation will be kept by the Construction Contractor for future reference.

APPENDIX E

SITE ACCESS AND EXIT SWEPT PATH ANALYSIS

MOOREBANK INTERMODAL PRECINCT **FIG 2.02a : REV A**

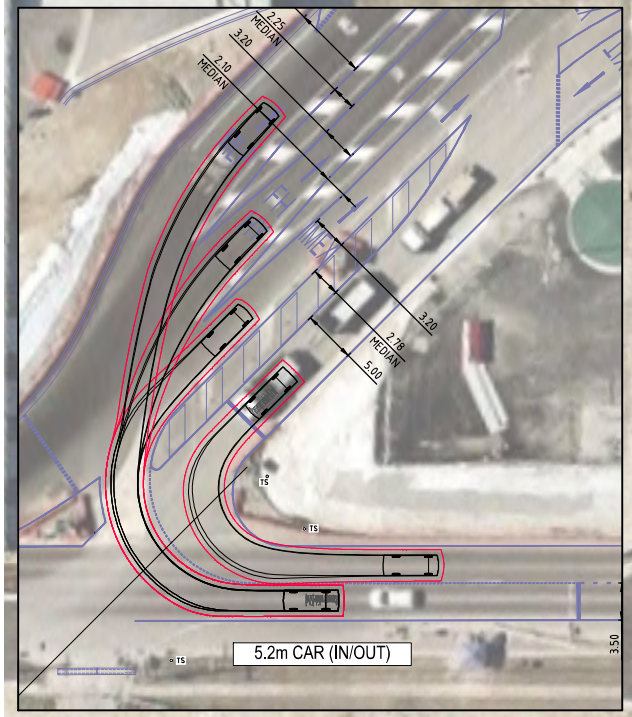
PROGRESSIVE ACCESS MANAGEMENT PLAN DATE : 02.12.19

MOOREBANK PRECINCT EAST (MPE) - STAGE 02 REF : SY180396

NORTHROP

SCALE 1:250@ A1 0 2 4 6 8 10 12m

180396_FIG 2.02_.dwg



30m SUPER B-DOUBLE (OUT)

30m SUPER B-DOUBLE (IN) 5.00 5.00 5.00 5.00

26m B-DOUBLE (IN) CONSTRUCTION TRAFFIC ONLY

A-DOUBLE (IN)

A-DOUBLE (OUT)

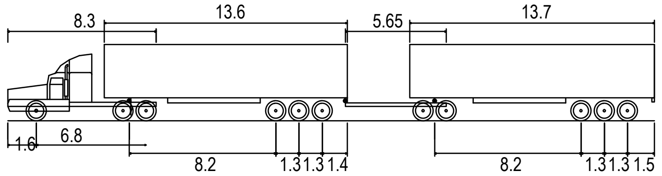
A-DOUBLE (IN)

5.2m CAR (OUT)

A-DOUBLE (OUT)

3.68 EXTG
3.50 EXTG
3.50 EXTG
3.50 EXTG
2x3.50 (7.00) EXTG
3.50 EXTG
3.50 EXTG

A-DOUBLE (36.2m)



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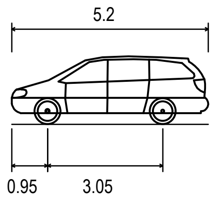
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.540m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	15.000m
DESIGN SPEED	15 km/hr

PASSENGER VEHICLE (5.2 m) AUSROADS 2013



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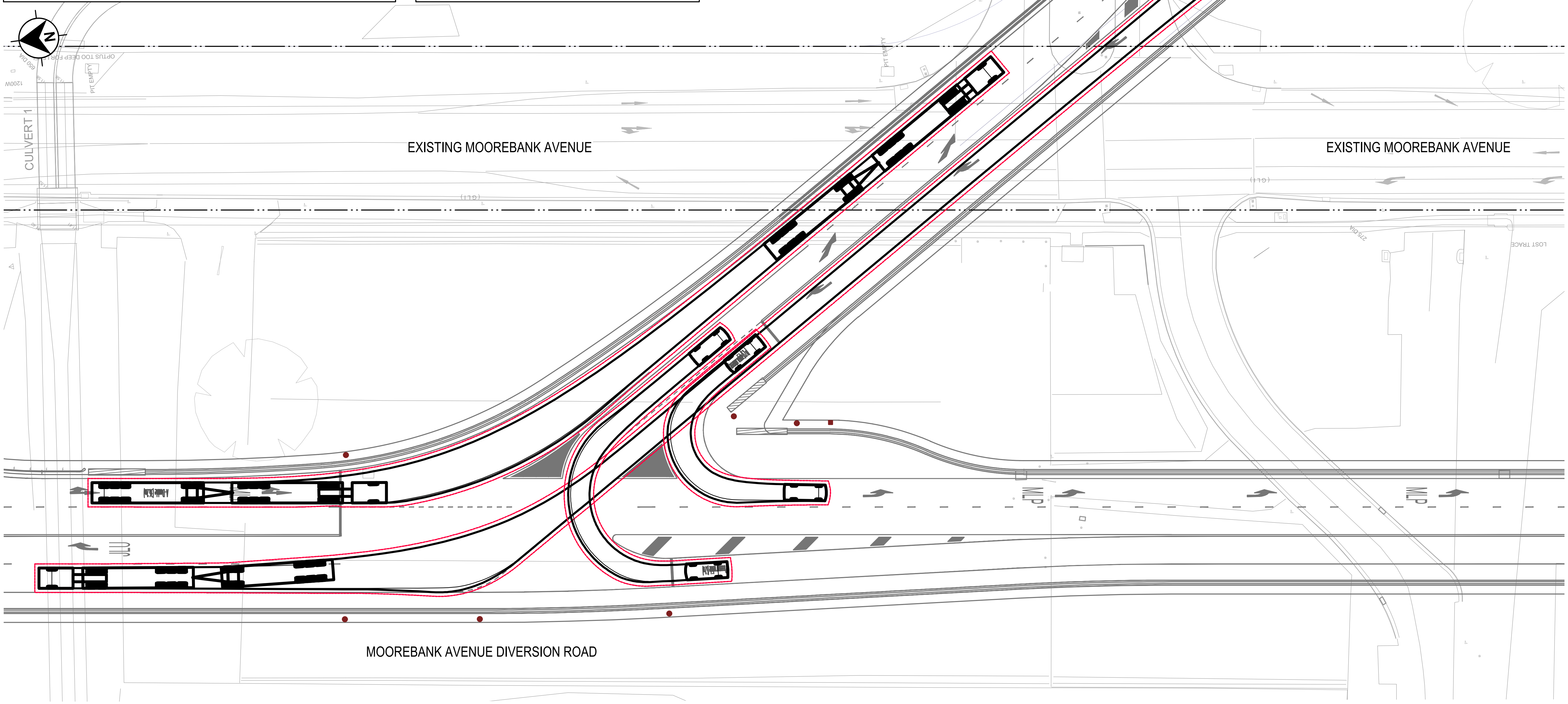
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.804m
MIN BODY GROUND CLEARANCE	0.295m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	6.300m



DESIGN VEHICLE
MPE STAGE 2 ACCESS (MCT4)

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION / NAME
\\ne-revit\revit\2018\180396 - moorebank avenue works maw\2-CAD\2-cad files\05-MADR\MADR-NRP-CV-DWG-7101.dwg

DESIGN LOT CODE

DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING

EXTERNAL REFERENCE FILES
PROJECT TITLE BLOCK - RMS_A3
madr_nrp_cv_xr_design_road_layout
magl_mp_cv_xr_survey_ground
magl_mp_cv_xr_survey_boundaries
madr_nrp_cv_xr_design_turnpath 30m
imex_mp_cv_xr_design
magl_mp_cv_xr_future_works_iwp
madr_nrp_cv_xr_ints_rail_stage_01
madr_nrp_cv_xr_design_control_alignment
imex_mp_cv_xr_linemarking_continuation
madr_nrp_cv_xr_signage
madr_nrp_cv_xr_signage_pole.

REV	DATE	AMENDMENT / REVISION DESCRIPTION	REVIEWED	APPROVAL
05	02.12.19	RMS 85% SUBMISSION	GC	MR
04	28.06.19	RMS 50% SUBMISSION	GC	MR
03	11.06.19	RMS 50% SUBMISSION	GC	MR
02		NOT ISSUED		
01		NOT ISSUED		

SCALES ON A3 SIZE DRAWING
0 5 10 15 20
SCALE 1:500m

CO-ORDINATE SYSTEM: MGA56
HEIGHT DATUM: AHD

DRAWINGS / DESIGN PREPARED BY

NORTHROP
Sydney
Level 11 345 George Street, Sydney NSW 2000
Ph (02) 9241 4188 Fax (02) 9241 4324
Email sydney@northrop.com.au ABN 81 094 433 100

PLOT DATE / TIME: 2 Dec 2019 - 03:04PM
PLOT BY: DChapman

TITLE	NAME	DATE
DRAWN	D.CHAPMAN	02.12.19
DRG CHECK	P.SUTTON	02.12.19
DESIGN	P.SUTTON	02.12.19
DESIGN CHECK	G.COLLINS	02.12.19
DESIGN MNGR	G.COLLINS	02.12.19
PROJECT MNGR	M.RICHARDS	02.12.19

DRAWING No. MADR-NRP-CV-DWG-7110

CLIENT: BMD

PREPARED FOR: TACTICAL GROUP

MOOREBANK AVENUE WORKS
MOOREBANK AVENUE DIVERSION ROAD (MADR)

TURNING PATH PLAN SHEET 10

A3

RMS REGISTRATION No. DS 2019/000519

PART

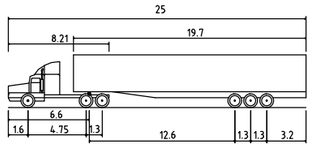
ISSUE STATUS: DETAILED DESIGN

EDMS No.

SHEET No. 7110

ISSUE 05

B-DOUBLE 26m



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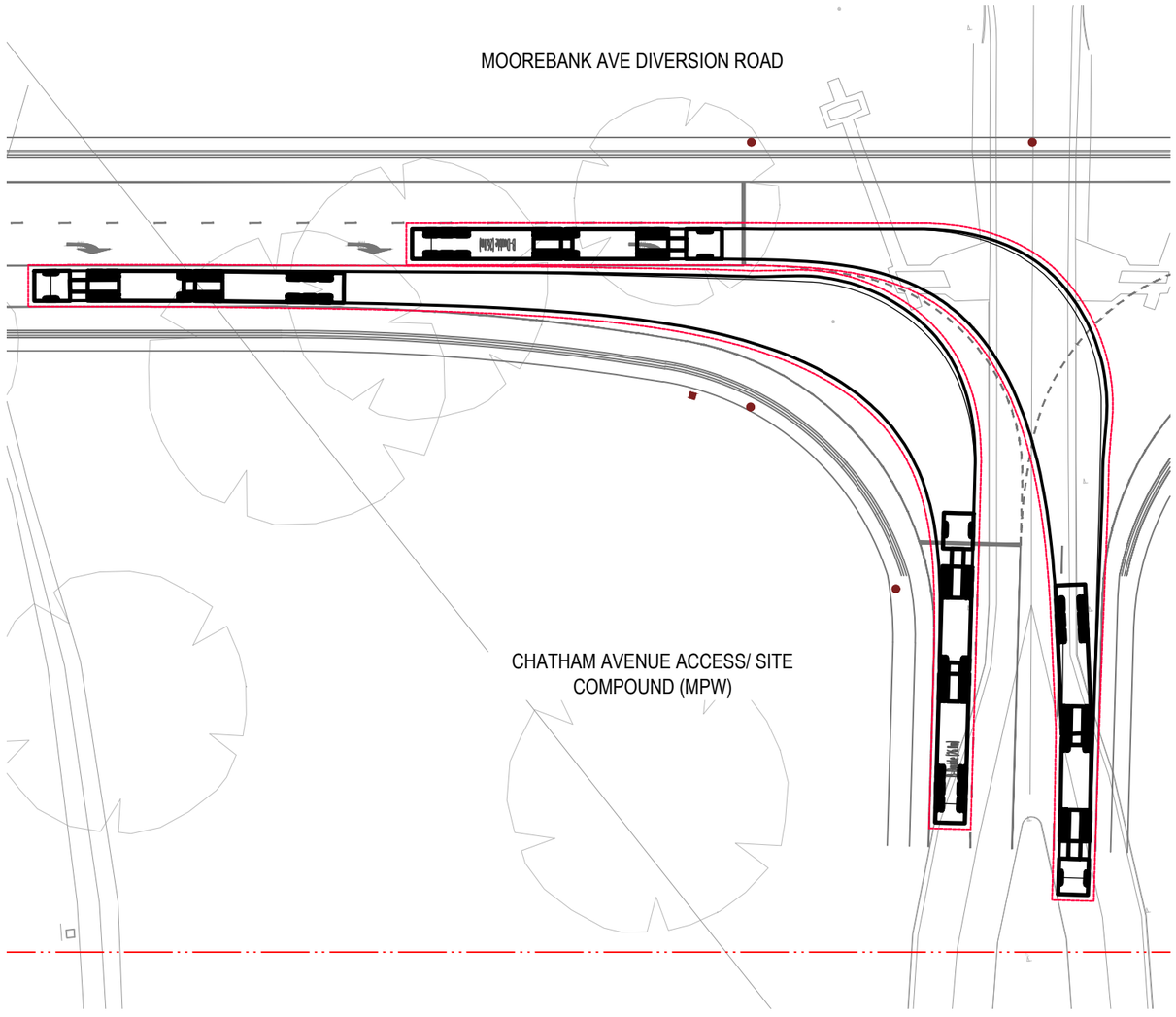
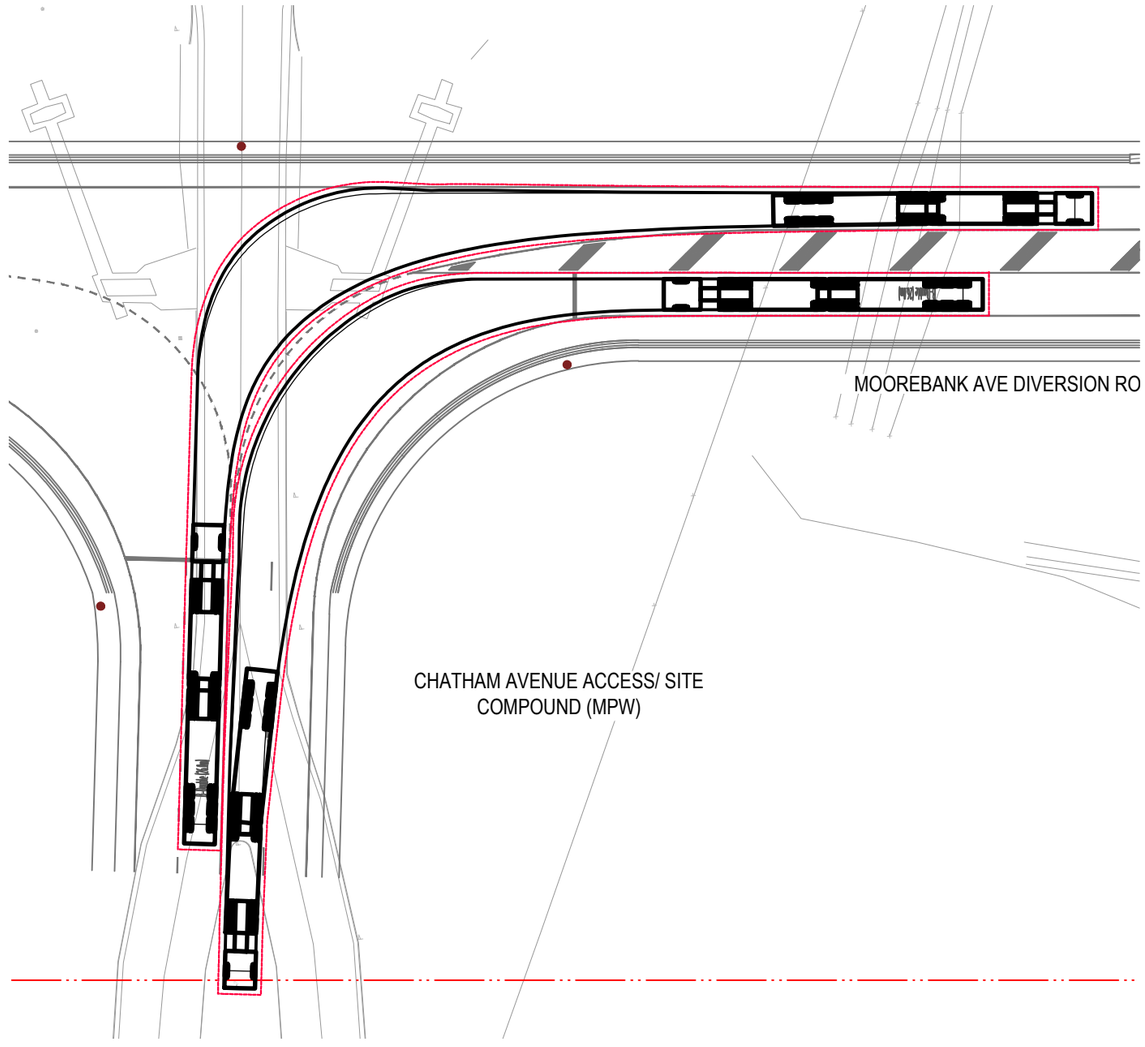
OVERALL WIDTH	3.000m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.540m
MAX TRACK WIDTH	3.000m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	15.000m



DESIGN VEHICLE
CHATHAM AVENUE - MCT8



DESIGN VEHICLE
CHATHAM AVENUE - MCT8

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

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DRAWING FILE LOCATION / NAME
\\ne-revit\revit\2018\180396 - moorebank avenue works maw\2-CAD\2-cad files\05-MADR\MADR-NRP-CV-DWG-7101.dwg

DESIGN LOT CODE

DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING

EXTERNAL REFERENCE FILES
PROJECT TITLE BLOCK - RMS_A3
madr_nrp_cv_xr_design_road_layout
madr_nrp_cv_xr_design_control
madr_nrp_cv_xr_survey_boundaries
madr_nrp_cv_xr_design_turnpath_53m
madr_nrp_cv_xr_design_turnpath_B-Double
madr_nrp_cv_xr_future_works_typ
madr_nrp_cv_xr_design_control_alignment
madr_nrp_cv_xr_design_control_information
madr_nrp_cv_xr_signage
madr_nrp_cv_xr_signage_pole

REV	DATE	AMENDMENT / REVISION DESCRIPTION	REVIEWED	APPROVAL
05	02.12.19	RMS 85% SUBMISSION	GC	MR
04		NOT ISSUED		
03		NOT ISSUED		
02		NOT ISSUED		
01		NOT ISSUED		

SCALES ON A3 SIZE DRAWING
0 5 10 15 20
SCALE 1:500m

CO-ORDINATE SYSTEM: MGA56
HEIGHT DATUM: AHD

DRAWINGS / DESIGN PREPARED BY
NORTHROP
Sydney
Level 11 345 George Street, Sydney NSW 2000
Ph (02) 9241 4188 Fax (02) 9241 4324
Email sydney@northrop.com.au ABN 81 094 433 100

PLOT DATE / TIME: 2 Dec 2019 - 03:05PM
PLOT BY: DChapman

TITLE	NAME	DATE
DRAWN	D.CHAPMAN	02.12.19
DRG CHECK	P.SUTTON	02.12.19
DESIGN	P.SUTTON	02.12.19
DESIGN CHECK	G.COLLINS	02.12.19
DESIGN MNGR	G.COLLINS	02.12.19
PROJECT MNGR	M.RICHARDS	02.12.19

DRAWING No.: MADR-NRP-CV-DWG-7115

CLIENT: BMD

PREPARED FOR: TACTICAL GROUP

MOOREBANK AVENUE WORKS
MOOREBANK AVENUE DIVERSION ROAD (MADR)

A3

TURNING PATH PLAN SHEET 15

RMS REGISTRATION No.: DS 2019/000519

PART

ISSUE STATUS: DETAILED DESIGN

EDMS No.

SHEET No.: 7115

ISSUE: 05