

Site B Foreshore Road, Port Kembla Construction Traffic Management Plan

Prepared for:

Manildra Group

26 April 2022

The Transport Planning Partnership



Site B Foreshore Road, Port Kembla Construction Traffic Management Plan

Client: Manildra Group

Version: V04

Date: 26 April 2022

TTPP Reference: 21173

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	11/08/2021	Ashwini Uthishtran	Jessica Ng	Ken Hollyoak	Ken Hollyoak
V02	20/08/2021	Ashwini Uthishtran	Jessica Ng	Ken Hollyoak	Ken Hollyoak
V03	10/03/2022	Ashwini Uthishtran	Oasika Faiz	Ken Hollyoak	Ken Hollyoak
V04	26/04/22	Ashwini Uthishtran	Oasika Faiz	Ken Hollyoak	KIAUL



Table of Contents

1	Intro	Introduction			
	1.1	Project Background	1		
	1.2	Purpose of the CTMP	1		
2	Exist	ing Conditions	3		
	2.1	Site Description	3		
	2.2	Abutting Road Network	3		
	2.3	Traffic Volumes	4		
	2.4	Public Transport Facilities	5		
	2.5	Pedestrian and Cycle Infrastructure	6		
3	Prop	osed Construction Activities	8		
	3.1	Description of Construction Activities	8		
	3.2	Duration and Staging of Works	8		
	3.3	Work Hours	9		
	3.4	Site Access Arrangements	9		
	3.5	Vehicle Movement Plan	.10		
	3.6	Construction Vehicle Types	.13		
	3.7	Construction Worker Parking	.13		
	3.8	Materials and Handling Area	.14		
	3.9	Work Zone Requirements	.14		
4	Con	struction Traffic Assessment and Implications	.15		
	4.1	Construction Traffic Generation	.15		
	4.2	Pedestrian and Cycle Access	.15		
	4.3	Public Transport Facilities	.16		
	4.4	Emergency Vehicles and Heavy Vehicles	.16		
	4.5	Adjoining Properties and Local Access	.16		
5	Con	struction Traffic Management Measures	.17		
	5.1	Traffic Control Plan	.17		
	5.2	Vehicle Access	.17		
	5.3	Heavy Vehicle Load Requirements	.17		
	5.4	Truck Routes	.17		
	5.5	Construction Worker Parking	.18		
	5.6	Site Inspections and Record Keeping	.18		
	5.7	Site Induction	.18		



	5.8	Stakeholder Consultation	
6	Conc	clusion2	20
Tak	oles		
Table	e 3.1: Ir	ndicative Construction Program	. 8
Figu	ures		
1191	UI C 3		
Figur	e 2.1: F	Proposed Development Site	. 3
Figur	e 2.2: 1	Tube Count Location	. 4
Figur	e 2.3: S	Summary of Traffic Volumes	. 5
Figur	e 2.4: 1	Nearby Public Transport Facilities	. 6
Figure	e 2.5: 1	Nearby Cycling Route	. 7
Figure	e 3.1: (Construction Site Access Arrangements	10
Figure	e 3.2: 1	Nominated Construction Truck Routes	11
Figure	e 3.3: 1	TfNSW Approved B-Double Routes	12
Figur	e 3.4: 1	NHVR A-Double Approved Route	13

APPENDICES

- A. INDICATIVE CONSTRUCTION PROGRAMME
- B. SWEPT PATHS ANALYSIS
- C. TRAFFIC CONTROL PLAN



1 Introduction

1.1 Project Background

The Transport Planning Partnership (TTPP) has prepared this CTMP on behalf of Manildra Group. It has been prepared to accompany a State Significant Development (SSD) application seeking approval for a proposed bulk liquids storage facility to receive, store and export ethanol at Site B Foreshore Road, Port Kembla. The proposal also includes two related pipelines from the facility location at Site B, Foreshore Road to the existing Berth 206.

This report has been prepared by engineers who hold the Roads and Maritime *Prepare a Works Zone Traffic Management Plan* certification. Details of the accredited engineers are provided as follows:

- Ken Hollyoak Certification No. TCT 1003481
- Jessica Ng (Szeto) Certification No. 0051973487
- Karl Magistrado Certification No. TCT 1008289

1.2 Purpose of the CTMP

TTPP understands that concerns have been raised by the community during community engagement sessions in relation to truck routes and safety and code of conduct for drivers during construction of the proposed development.

The purpose of this CTMP is to assess the traffic and pedestrian implications and outline how vehicular, cyclist and pedestrian traffic and access will be managed during the construction period. This CTMP provides a structured approach to manage traffic and access during construction 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 CTMP is to:

- maintain vehicle and pedestrian access to/from adjacent properties at all times
- restrict construction vehicle movements to designated routes to/from the site
- manage and control construction vehicle activity in the vicinity of the site
- provide an appropriate and convenient environment for pedestrians and cyclists around the construction site
- minimise the impact of construction activity on traffic flows, emergency vehicle access and pedestrian movements



- maintain appropriate public transport access
- carry out construction activity in accordance with the approved work hours.

Any changes proposed by Manildra will require further approval from the relevant consent authorities.



2 Existing Conditions

2.1 Site Description

The subject site is located at Foreshore Road, Port Kembla and falls within the local government area of Wollongong City Council. Land in the vicinity of the site predominantly comprises industrial use and commercial/residential use to the west of Military Road and south of Marne Street.

The proposed site location is shown in Figure 2.1





2.2 Abutting Road Network

The subject site fronts Foreshore Road along the southern boundary of the site. This road provides connectivity to the wider arterial road network via Old Port Road. A brief description of these roads is provided below.



Foreshore Road functions as a two-way local road, generally aligned in an east-west direction. It connects to Old Port Road in the west and The Port Kembla Outer Harbour Boat ramp in the east. The width of the road carriageway is approximately 10m with kerbside parking on the southern side of the road. There is a separated off-road shared path on the northern side of the road. Foreshore Road has a sign-posted speed limit of 50km/h.

Old Port Road is classified two-way state road, generally aligned in a north to south direction and connects to Flinders Street in the north and Darcy Road in the south. The width of the road carriageway is approximately 12.2m with kerbside parking along some sections of the road near the site. The road has a posted speed limit of 60km/h.

2.3 Traffic Volumes

TTPP has commissioned tube counts between 6 May 2021 and 12 May 2021 (total period of seven days). The tube counter was installed on Foreshore Road to record the total volume of traffic experienced near the site.

The location of the tube counter is shown in Figure 2.2, with the results of the traffic survey summarised in Figure 2.3.







Figure 2.3: Summary of Traffic Volumes

Figure 2.3 indicates that up to 100 two-way vehicle movements were recorded along Foreshore Road, during the Sunday midday peak period (11:00am – 12:00pm). This is equivalent to approximately two vehicle movements per minute, which is considered low.

Weekday Average

Time

Saturday

During the weekday AM peak period (10:00am – 11:00am), a total of 85 vehicle movements were recorded and during the PM peak period (12:00pm – 1:00pm), a total of 79 vehicle movements were recorded. This equates to approximately one vehicle movement per minute.

On this basis, existing traffic volumes along Foreshore Road are generally considered low (i.e. 79 to 100 vehicles per hour during peak times).

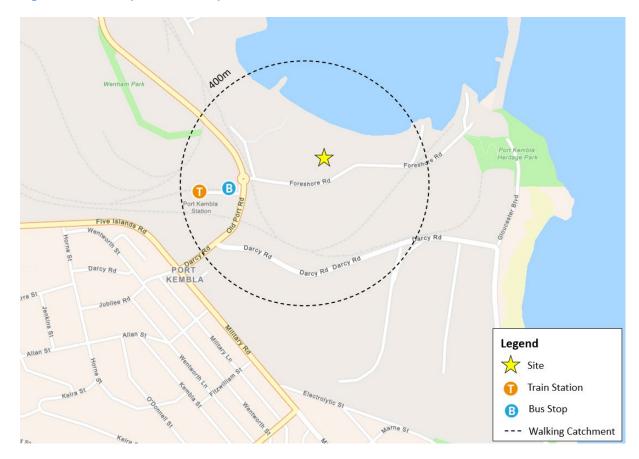
2.4 Public Transport Facilities

The closest train station to the site is Port Kembla Station which is serviced by the south-coast line every hour. It is located 350m or a 4-minute walk from the site. The closest bus stop to the site is located off Old Port Road which is 220m or a 3-minute walk from the site. It is serviced by the bus routes Route 43 and Route 65 every hour.

The public transport facilities within 400m radial distance of the site are shown in Figure 2.4



Figure 2.4: Nearby Public Transport Facilities



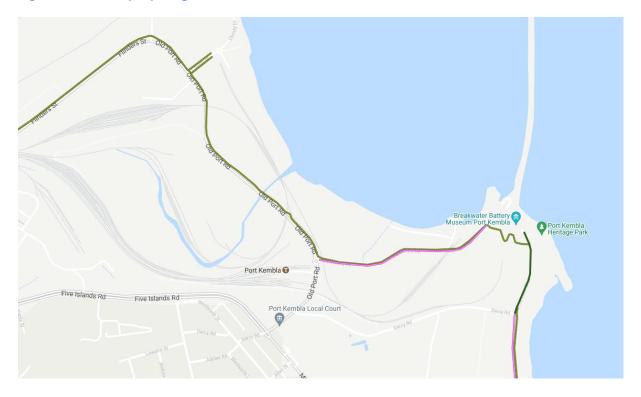
2.5 Pedestrian and Cycle Infrastructure

There are sealed pedestrian footpaths along Foreshore Road and Old Port Road. There is also a separated off-road shared path along the northern side of Foreshore Road.

There are available cycling routes near the site on Old Port Road and Foreshore Road which are shown in Figure 2.5.



Figure 2.5: Nearby Cycling Route





3 Proposed Construction Activities

3.1 Description of Construction Activities

The proposed construction works at Site B Foreshore Road, Port Kembla will primarily involve the following:

- Civil Works
- Tank installation
- Piping, mechanical and electrical installation

The extent of the work site shall generally be wholly contained within the site boundary, with minimal impact on the surrounding road network.

3.2 Duration and Staging of Works

The construction is expected to commence in September 2022 for a total period of twelve months, with an estimated completion date in September 2023.

The indicative construction staging and estimated duration of construction is summarised in Table 3.1, with full construction program details provided in Appendix A. It is however noted that staging of these construction work periods may change subject to confirmation from the appointed Contractor.

Table 3.1: Indicative Construction Program

Construction Stage	Construction Activities	Description of Works	Start Date	End Date	Duration
1	Civil Works	 Excavation and removal of trees, soil and existing landscaping Construction of new internal service roads, retaining walls Installation of formwork and steel reinforcement 	September 2022	June 2023	10 months
2	Tank Installation	 Transportation of ethanol tank panels and slops tanks to the site Tank installation 	January 2023	June 2023	6 months
3	Piping and mechanical works	Undertake mechanical works and installation of piping	March 2023	August 2023	6 months
4	Fire system	Installation of fire protection mechanisms	May 2023	August 2023	4 months
5	Electrical works	Installation of services	February 2023	September 2023	8 months
Overall			September 2022	September 2023	12 months



3.3 Work Hours

Construction works shall be carried out in accordance with the approved work hours specified in the conditions of consent for the development. It is envisaged that construction activities associated with the project (except blasting and dredging activities) and which are audible at sensitive receivers, shall only be undertaken during the following hours:

- Monday to Friday: 7am-6pm
- Saturday: 8am-1pm
- No work is to be undertaken on Sundays or Public Holidays.

Works outside of these hours shall only occur if the work only generates noise that is no louder than 5 dB(A) above the rating background level at any adjoining residence in accordance with the Interim Construction Noise Guideline (ISBN 978 1 74232 217 9) published by the Department of Environment and Climate Change NSW in July 2009, and no louder than the noise management levels specified in the conditions of consent for the development.

The appointed Contractor shall be responsible to liaise with Council / NSW Ports to obtain all relevant permit approvals.

3.4 Site Access Arrangements

Access to the site will be provided off Foreshore Road via separate ingress and egress access driveways, as per the proposed development layout plan, as shown in Figure 3.1. Access shall be designed to facilitate vehicles up to and including a 32m long A-double vehicle.



RESERVY
ESS GATE

ACCESS

ACCE

Figure 3.1: Construction Site Access Arrangements

During construction, the site will be fenced with lockable gates which will be opened for construction staff as required.

3.5 Vehicle Movement Plan

Generally, construction vehicles would have origins and destinations throughout Sydney. There will however be several major deliveries to the site from Nowra (i.e. tank deliveries). Dedicated truck vehicle routes have been developed to provide the shortest distances to/from the arterial road network, whilst minimising the impact of traffic on local streets within the vicinity of the site.

All truck drivers will be advised of the designated truck routes to/from the site and be required to adhere to the nominated routes.

On a local level, the designated truck routes to/from the site shall be provided off Foreshore Road in order to travel to/from the wider arterial road network via Old Port Road and Five Islands Road as shown in Figure 3.2 and Figure 3.4.



Warr wong

Port Kembla

Beach

Warr wong

Port Kembla

Figure 3.2: Nominated Construction Truck Routes

Base Map Source: Google Maps

The nominated truck routes are consistent with the approved B-double routes set out by TfNSW in accordance with the NSW Combined Higher Mass Limits (KML) and Restricted Access Vehicle (RAV) Map, as shown in Figure 3.3.



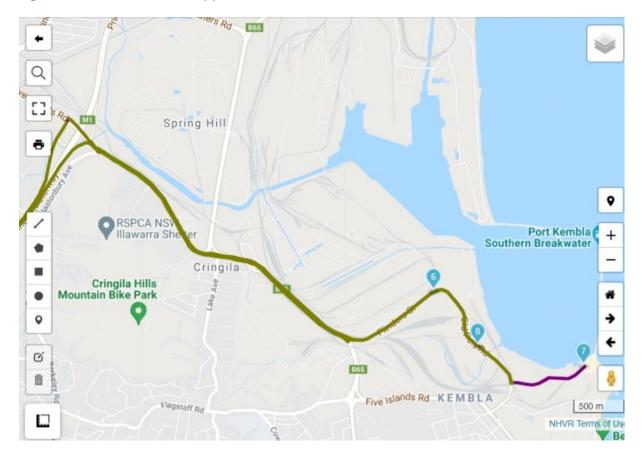
Figure 3.3: TfNSW Approved B-Double Routes



The approved National Heavy Vehicle Regulator (NHVR) A-Double route is shown in Figure 3.4.



Figure 3.4: NHVR A-Double Approved Route



3.6 Construction Vehicle Types

All construction activities will generally be carried out by small to heavy rigid vehicles, no larger than a 12.5m long heavy rigid vehicle. It may also be necessary to use 19m long articulated vehicles and 32m A-doubles for larger deliveries to/from the works site (e.g. delivery of plant equipment and tanks).

Swept path analysis has been undertaken using a 32m long A-double vehicle, which demonstrates appropriate access to/from the site. This is provided in Appendix B.

3.7 Construction Worker Parking

Employee vehicle parking will be provided on site on the western side of the canal during construction, as well as some on-site car parking. All workers will however be encouraged and expected to use public transport and/or carpool to travel to/from the site. This will be incorporated in the workers induction program to ensure minimal parking impact on surrounding streets.



3.8 Materials and Handling Area

All materials handling and plant equipment, including waste storage, are expected to be wholly stored on-site within the works site. No public road will be required for such purposes.

3.9 Work Zone Requirements

No works zone will be required as part of the works. All loading and unloading will occur wholly within the site.



4 Construction Traffic Assessment and Implications

4.1 Construction Traffic Generation

The works are expected to generate in the order of 30 inbound and 30 outbound light vehicle trips each working day (i.e. employee vehicles). Typically, staff would travel to the site between 6am and 7am and leave the site between 3pm and 5pm.

In terms of truck movements, at this stage, it is expected that there would be the following daily truck movements:

- Semi-trailers an average of 1 to 3 trucks per day
- Concrete trucks a total of 3 to 20 trucks from 6am to 3pm
- Smaller trucks an average of 5 trucks per day
- Mobile cranes 1 to 3 per day

Based on the above, there could be in the order of 30 light vehicles and 11 trucks per day (i.e. 60 light vehicle movements and 22 truck movements per day). Assuming an average 10-hour workday, this could equate to up to six light vehicle movements and 2-3 truck movements per hour. This equates to one vehicle movement every 6 to 7 minutes, which is considered low.

Further to this, as indicated in Section 2.3, existing traffic volumes along Foreshore Road are generally low (i.e. 79 to 100 vehicles per hour during peak times) and therefore, the proposed additional construction vehicle movements could not be expected to result in any adverse impact on the surrounding road network, nor result in any operational of safety issues. Additional traffic management measures would be in place to ensure safety during construction, as detailed in Section 5.

4.2 Pedestrian and Cycle Access

Pedestrian and cycle access shall be maintained at all times during the project. Appropriate site fencing will be installed to separate construction activities from surrounding pedestrian and cycle movements accordingly. All relevant permit approvals will be obtained from Council / NSW Ports, prior to the commencement of any work.



4.3 Public Transport Facilities

The proposed construction activities would not impact existing public transport services. All existing bus facilities and bus stops will be maintained at all times during the works.

4.4 Emergency Vehicles and Heavy Vehicles

No special provisions for emergency service vehicles or heavy vehicles are required as part of the proposed construction works. Emergency and heavy vehicle access shall be maintained at all times.

4.5 Adjoining Properties and Local Access

Access to adjoining properties will not be affected by the works.



5 Construction Traffic Management Measures

5.1 Traffic Control Plan

A site-specific Traffic Control Plan (TCP) has been prepared and designed in accordance with TfNSW's *Traffic Control at Work Sites Manual*. The TCPs display the management of traffic and pedestrians along the frontage of the site.

The proposed construction vehicle movements to/from the site shall be accompanied by advisory traffic control signage to minimise the traffic impact on the surrounding road network. All advisory signage shall be installed in accordance with AS1742.3 Manual of uniform traffic control devices – Traffic control devices for works on roads and the Traffic Control at Worksites Manual. Signs shall be installed and maintained throughout on days that truck movements are scheduled to occur.

A copy of the TCP is provided in Appendix C.

5.2 Vehicle Access

Construction vehicles shall radio / call the site office on approach to the site to ensure access to the works site is available. All loading and unloading shall be undertaken within the site during the approved work hours. As noted previously, the queuing or marshalling of construction vehicles shall not be permitted on public roads.

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

5.3 Heavy Vehicle Load Requirements

All drivers will be required to adhere to the posted vehicle load limits on all roads and not overload vehicles beyond their maximum loading limits and/or relevant approvals.

5.4 Truck Routes

Protocols must be in place to ensure:

- site induction shall include procedures for accessing the site
- drivers shall adhere to the nominated truck routes, as shown in Figure 3.2



- drivers shall be aware of pedestrians and cyclists in the immediate vicinity of the site
- drivers shall be aware of existing sign posted speed limits.

5.5 Construction Worker Parking

Limited car parking will be provided during the works. Employee car parking will also be available on site on the western side of the canal. In addition to this, it is proposed to provide a tool drop-off and storage facility on-site. This will allow construction workers to drop off and store their tools, allowing them to use public transport to travel to and from the site.

The following measures will also be implemented to encourage workers to use public transport:

- provide an on-site tool drop-off and storage facility to allow tradespeople to drop off and store their specific machinery for the project
- inform staff during the induction and regular management meetings that no car parking will be available for staff
- instruct staff to use public transport to access the site during the induction and regular management meetings
- display public transport timetable information at key locations within the work site and ensure that it is easily accessible by staff.

5.6 Site Inspections and Record Keeping

The construction works will be monitored to ensure that it proceeds in accordance with the CTMP. A daily inspection before the start of any 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 impact shall be recorded and dealt with as they arise.

5.7 Site Induction

All staff employed on the site by the construction contractor shall be required to undergo a site induction. The induction shall include permitted access routes to and from the proposed work site for site personnel and construction vehicles as well as standard environmental, OH&S, driver protocols and emergency protocols. The workers will be encouraged to use public transport to travel to/from the site during the induction.



5.8 Stakeholder Consultation

NSW Ports organises a Port Kembla Community Engagement programme, which Manildra has utilised. Future Community engagement will be conducted via this forum. Consultation with Council and other authorities will be conducted in cooperation with NSW Ports.



6 Conclusion

This CTMP has been prepared to document the proposed construction activities and associated construction traffic management measures necessary to facilitate the construction of the proposed development at Site B Foreshore Road, Port Kembla.

The key findings contained in this CTMP are as per below.

- The construction is expected to commence in September 2022 for a total period of twelve months, with an estimated completion date in September 2023.
- The construction of the proposed development is expected to generate in the order of 30 light vehicles and 11 trucks per day (i.e. 60 light vehicle movements and 22 truck movements per day).
- Assuming an average 10-hour workday, this could equate to up to six light vehicle movements and 2-3 truck movements per hour.
- Given the expected low volume of construction vehicles, construction vehicle movements to and from the site can be satisfactorily accommodated in the surrounding road network.
- No pedestrian or cyclist facilities will be impacted as a result of the construction activities.
- It is proposed that loading/unloading of trucks to occur within the site, with construction vehicle access provided off Foreshore Road via separate ingress and egress access driveways, as per the proposed development layout plan.
- A number of driver protocols will be established as part of the site induction procedure for drivers to ensure the safety of motorists, pedestrians and cyclists.
- Truck drivers are to be instructed to use the designated truck routes to/from the site.

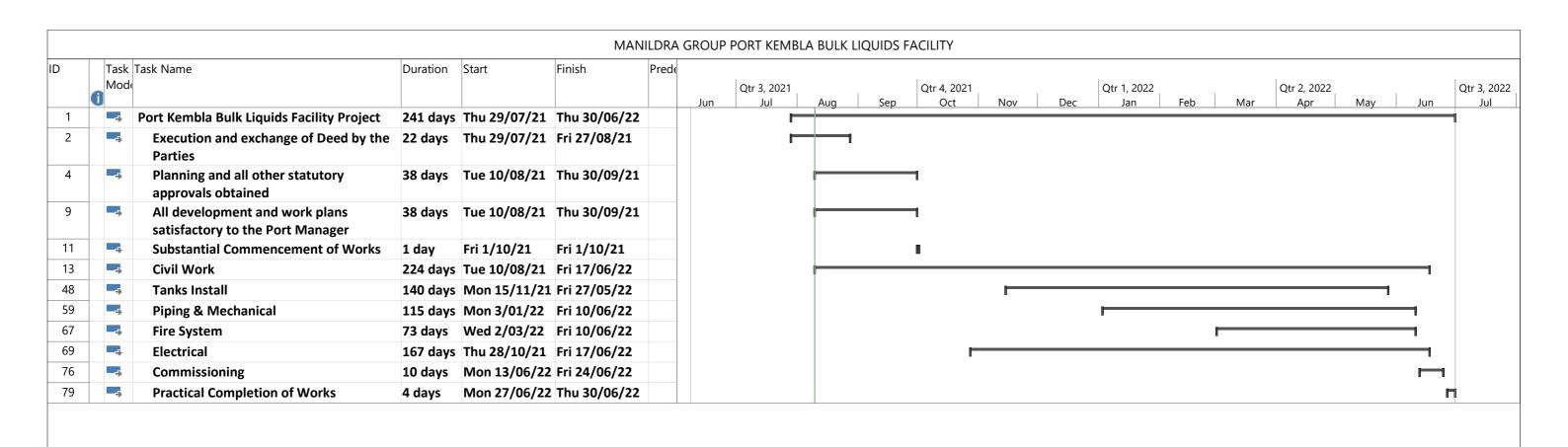
In summary, it is concluded that the proposed traffic control measures will adequately address potential implications associated with proposed construction activities.

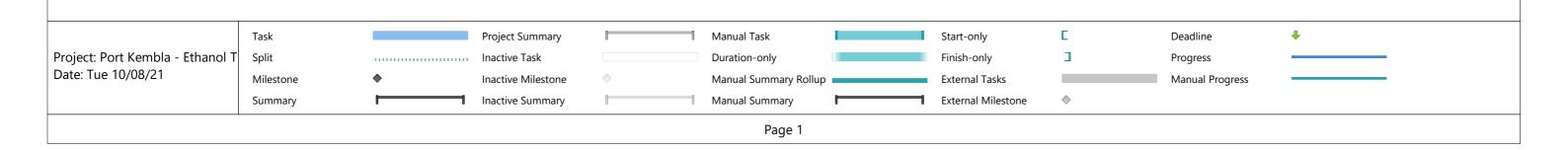


Appendix A

Indicative Construction Programme

21173-R02V04-220426-CTMP Appendix A



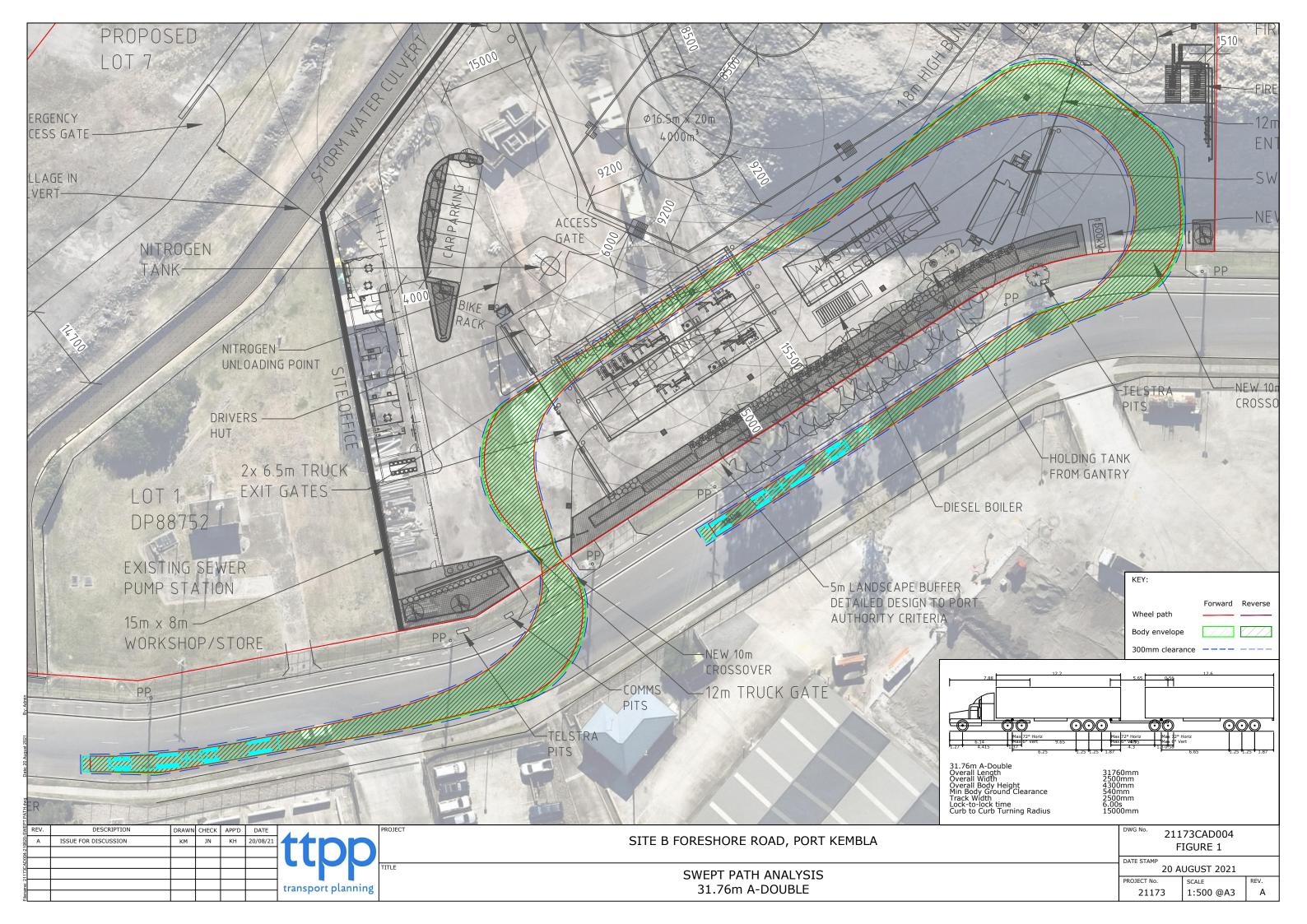




Appendix B

Swept Paths Analysis

21173-R02V04-220426-CTMP Appendix B

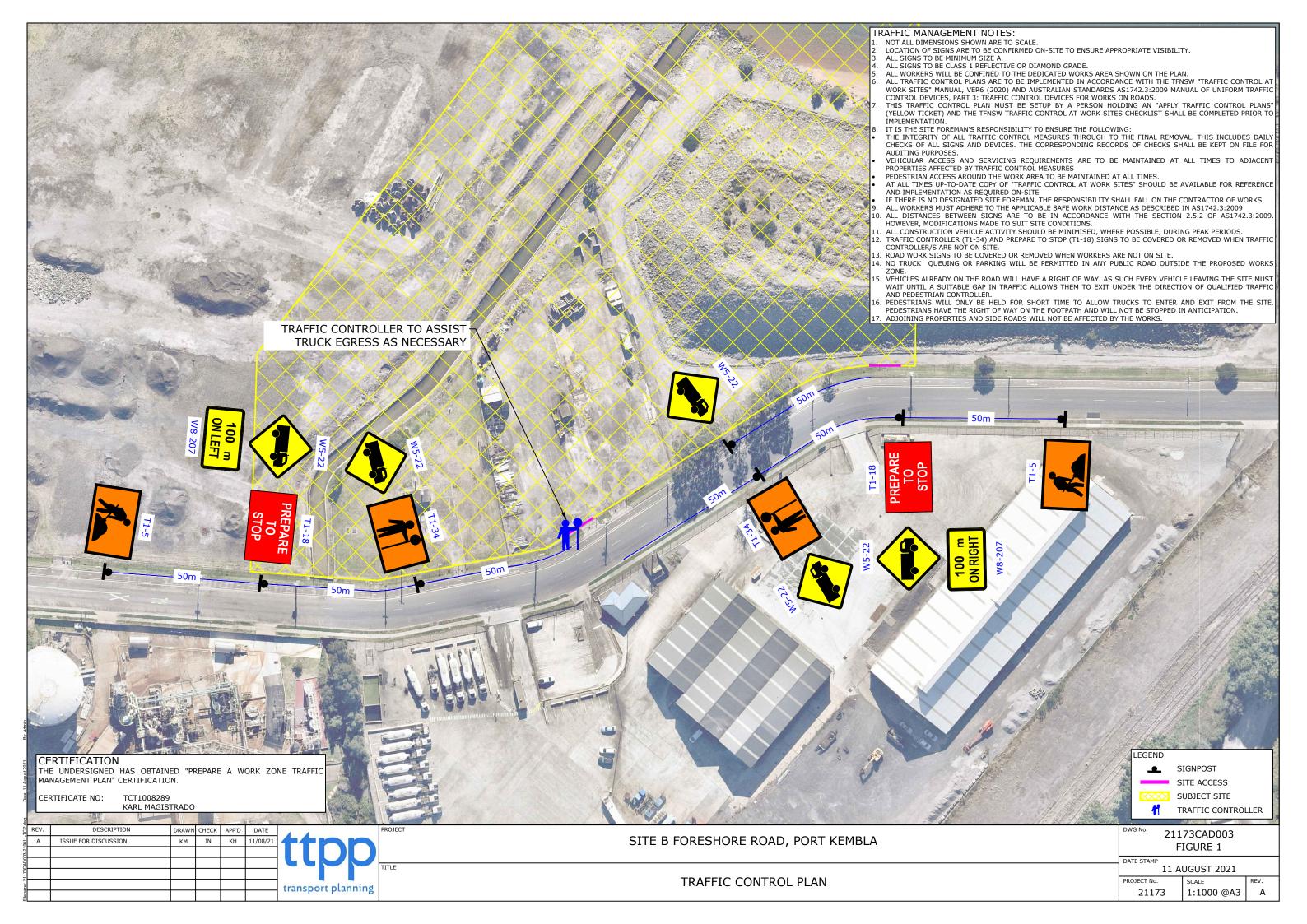




Appendix C

Traffic Control Plan

21173-R02V04-220426-CTMP Appendix C



The Transport Planning Partnership Suite 402 Level 4, 22 Atchison Street St Leonards NSW 2065

> P.O. Box 237 St Leonards NSW 1590

> > 02 8437 7800

info@ttpp.net.au

www.ttpp.net.au