

# **Kurnell Terminal Demolition Project**

## **Traffic Management Plan**

CALTEX AUSTRALIA PETROLEUM PTY LTD

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## Revision History

Revision No.	Date of Revision	Description of Revision	Section / Page No.
A	July 2015	Draft for consultation	-
B	September 2015	Final for Approval	-
C	September 2015	Approved	-
D	January 2018	Updated to include SSD 5544 MOD2 and SSD 5544 MOD3. Submitted to Department of Planning and Environment for approval	Whole document

## 1 INTRODUCTION

Caltex is in the process of converting the petroleum refinery in Kurnell (the ‘Site’) to a finished fuel terminal facility (the Project).

The Project is divided into three phases:

- Converting infrastructure to allow the Site to operate as a terminal and shut down the refinery (the conversion works).
- Demolition and removal of redundant infrastructure, including Tank 101 (the demolition works);
- Construction, filling and closure of the asbestos containment cell (the ACS Management works).

This Traffic Management Plan (TMP) has been prepared in relation to the demolition works.

The objective of the Project is to ensure that Caltex’s operations within Australia remain viable and can provide a safe, reliable and sustainable supply of petroleum fuels to NSW and the ACT.

As such the Project will allow the Site to continue to be utilised as a terminal where finished products can be received by ship, stored in tanks before leaving the Site by pipeline to other terminals.

The demolition works and ACS Management works are being undertaken in accordance with Development Consent from the Department of Environment and Planning, Approval Number: SSD 5544 MOD1, SSD 5544 MOD2, SSD 5544 MOD3, and the consolidated Management and Mitigation Measures (MMM) (refer to Approval: SSD 5544 MOD3).

This TMP has been prepared in response to Development Consent SSD 5544 MOD1, Condition 36A, outlined in **Table 1**.

**Table 1 – Development Consent conditions addressed in this Management Plan**

Condition Requirement	Reference Section
<i>Condition C36A: The Applicant shall update and implement the Traffic Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to update the plan approved under condition C36 and shall also:</i>	-
<i>(a) be prepared in consultation with Council;</i>	Section 1
<i>(b) be approved by the Secretary (refer to condition D1A for timing);</i>	Section 1
<i>(c) include the designated routes for demolition traffic to the demolition areas within the site;</i>	Section 3.1, Figure 2
<i>(d) include details of traffic management arrangements for the cooling water outlet and intake pipeline removal works within the road reserves; and</i>	Section 1.1.2, Section 4.1
<i>(e) outline the procedures for the notification of all potentially affected persons prior to and during the pipeline removal works within the road reserves.</i>	Section 4.1.2

This TMP has also been prepared in accordance with the following:

- SSD 5544 MOD1 Conditions – C21, C25, C36, C36B, C37; and
- MMM – I1, I2, I3, I4.

## **1.1 Legislative and Other Requirements**

### **1.1.1 Environment Protection Licence**

The terminal currently operates in accordance with an Environment Protection Licence (EPL) 837 issued by the NSW Environment Protection Authority (EPA). EPL 837 contains numerous operational conditions and Pollution Reduction Programs (PRPs). All work undertaken for the demolition works will comply with the conditions within EPL 837.

### **1.1.2 Permits**

Works within the road reserves would be carefully managed and the approach to the work would be agreed with SSC in advance through their 'Road Opening Application' process. This application would be submitted to SSC alongside the TMP and a schedule of works. A Traffic Control Plan will be required with each application detailing requirements associated with any traffic control within the road. The works within the road reserve will aim to keep one lane open as works progress to maintain traffic flow along each street. No work within the road reserve would be started until the road opening application is approved.

If the Contractor is required to use vehicles or a combination of vehicles that are classified as Class 1 oversized and/or overmass (OSOM) load carrying vehicles they will be required to obtain an access permit to operate on the NSW road network from RMS. The Contractor will also be required to comply with any commitments associated with the access permit and the requirements outlined in 'Additional Access Conditions for oversize and overmass heavy vehicles and loads' Version 1.0 – Roads and Maritime Services 2015.

## 2 OBJECTIVES

The objective of the TMP is to minimise traffic interactions and appropriately manage traffic interfaces during the demolition works. This includes the management of commercial vehicles used for the delivery and removal of equipment and the Project's personal vehicles.

To address this objective, the TMP includes:

- The management measures, actions and associated performance indicators, that will be implemented throughout the Project;
- The monitoring program that will be implemented;
- Key project management roles and responsibilities and reporting requirements; and
- The triggers for the development of specific Traffic Control Plans (TCPs), including traffic management measures which will be generated for works which require permitting or would require amendments or alterations to the existing public road system.

## 3 PROJECT OVERVIEW

The Site has an ISO 14001 accredited Environmental Management System (EMS). This system includes comprehensive management plans and is used site wide. The TMP will be implemented in line with the EMS.

The demolition works will broadly involve the following activities within the demolition works area (refer to Attachment A):

- Demolition, dismantling or removal of:
  - refinery process units and associated infrastructure;
  - redundant tanks and associated infrastructure;
  - redundant pipeways and above and underground pipelines; and
  - redundant buildings and services.
- Associated civil works;
- Waste management activities including concrete crushing; and
- Returning the works areas to ground level.

The ACS Management works will broadly involve the following activities within the ACS Management works area (refer to Attachment A):

- Construction, filling and closure of the asbestos containment cell.

Refer to the Demolition Environmental Management Plan (DEMP) for **Site Location** figures.

### 3.1 Traffic Routes

The Site is located within the suburb of Kurnell on the southern shore of Botany Bay and is accessed by a main arterial road and local streets. The main arterial road servicing the Site is Captain Cook Drive.

A location plan showing the surrounding road network and designated routes for demolition traffic and defined access points to the Terminal can be found in **Figure 1**.

**Figure 2** shows the demolition work areas inside and outside of the Site. Demolition works will be conducted in phases at a specified area therefore traffic flow within the Terminal will be dictated by the location of the work area so as to not impede day-to-day Terminal operations. An area specific Demolition Management Plan (DMP) will be developed for each demolition area that will specify the internal traffic routes that will be used. Demolition work areas outside of the Terminal (i.e. external easements and reserves) will require a SSC permit as detailed in Section 1.1.2. Traffic routes specific to these locations will be determined during the application process.

Captain Cook Drive is the major access road to the Kurnell Peninsula on the southern shore of Botany Bay from the wider Sydney road network. It connects Taren Point Road to the west (and further to the Princes Highway via The Boulevard) with Prince Charles Parade to the east and the suburb of Kurnell. It has three lanes in each direction west of Gannons Road with a median strip separating each carriageway, reducing to two lanes in each direction and divided carriageways between Gannons Road and Woolooware Road. It further decreases to an undivided carriageway with one lane in each direction east of Woolooware Road to Kurnell.

**Captain Cook Drive** west of Gannons Road is classified as a State Road. To the east of Gannons Road, Captain Cook Drive is classified as a Regional Road. Captain Cook Drive provides primary vehicular access to the Site and connects Taren Point Road with the Kurnell Peninsula on the southern shore of Botany Bay. Within the vicinity of the Site, the carriageway is divided and comprises one traffic lane in each direction. A section of Captain Cook Drive between Woolooware Road and Elouera Road is being upgraded to two traffic lanes in each direction. Sutherland Shire Council states that this upgrade is scheduled for completion in 2015.

**Taren Point Road** is classified as a State Road and follows a north-south alignment, in the suburb of Taren Point. Taren Point Road is aligned parallel to and east of the Princess Highway and provides an alternate route. Generally, the carriageway is divided and comprises three traffic lanes in each direction with auxiliary turning lanes.

**Solander Street** is classified as a Local Road and provides vehicular access to the Site. It connects the car park with Captain Cook Drive. The carriageway comprises one traffic lane in each direction.

### 3.2 Traffic Numbers

The traffic generated by the demolition works would incorporate a mix of demolition plant vehicles, delivery vehicles and demolition personnel movements. A summary of the vehicle mix includes:

- Demolition works personnel – a maximum of 230 additional personnel (460 daily vehicle movements) on average would be required at the Site during the demolition works.
- Heavy vehicles:
  - 2,675 heavy vehicles would be required to access the Site, resulting in approximately 6 heavy vehicles per day (12 daily vehicle movements); and
  - at any one time there would be a peak of approximately 30 heavy vehicles per day (60 daily vehicle movements) required to access the Site.

Some low loaders or B-double trucks will be required during the demolition works however this would be a temporary impact and will be managed through the TCP process when required.

A small portion (<5%) of the demolition plant and demolition personnel will need to access some areas outside the Site but within the demolition works area. This would be for works in the road reserves, Kurnell Wharf, Silver Beach and Botany Bay. Whilst these works will not be on the main part of the Site, these workers would still use Captain Cook Drive to access the demolition works area. Other roads that would be used to access these areas include Sir Joseph Banks Drive, Solander Street, Bridges Street, Torres Street, Cook Street, and Prince Charles Parade.

### 3.3 Works Program

Caltex is planning to commence the demolition works during the second half of 2015. The ACS Management works will commence in early 2018.

A schedule for demolition works and the ACS Management works is shown in **Table 2** below.

**Table 2 - Proposed Works Schedule**

Task	Indicative Date
<b>Demolition works</b>	
Demolition of Refinery Process Units	Mid 2015 – Mid 2017
Demolition of Tanks	Mid 2016 – Mid 2018
Pipeline Removal	Start 2016 – Mid 2018
Demolition of Buildings	Mid 2016 – End 2017
Concrete Crushing	End 2017
<b>ACS Management works</b>	
Containment Cell Construction	Late 2017 – Q1 2018
Excavation of ACS from Pipeways and Filling of Containment Cell	Q2 2018 – Q4 2018
Closure of Containment Cell	Q1 2019

It is noted that the schedule of demolition works associated with the Project may vary from the anticipated schedule, but will not extend beyond three years from the date of consent of SSD 5544 MOD1 (i.e. 10 August 2018). The ACS Management Works will not extend beyond 30 April 2019 in accordance with Condition B7B.

Works within each road reserve will be undertaken in accordance with a Road Opening Permit from SSC (refer to Section 1.1.2).

## **4 TRAFFIC MANAGEMENT PROCEDURES**

Specific control measures required to undertake the Project including the Performance Objectives, Management Actions, Performance Indicators, Monitoring, Reporting and Corrective Actions are set out in the following Sections.

Suitable equipment, facilities, training, work practices and other necessary precautions will be taken to minimise impacts to the environment and the risk of pollution.

All Caltex and Contractors personnel will implement reasonable and practicable measures to avoid or minimise impacts to the environment that may arise from the Project.

### **4.1 Mitigation Measures**

The following traffic mitigation measures will be implemented during the demolition works:

- Local Authorities and Kurnell residents will be informed of Project related work which would affect the road network.
- Works to remove pipelines from under the road reserves in Kurnell would require a TCP and would not take place before a road opening application has been approved by SSC.
- Pipeline removal works along the road reserves on Captain Cook Drive, Prince Charles Parade, Cook Street, Torres Street and Bridges Street will be undertaken in consultation with SSC.
- Caltex will ensure that all vehicles used for demolition activities are:
  - maintained in a proper and efficient condition; and
  - operated in a proper and efficient manner.
- All trucks carrying loose material entering or leaving the Site will have their loads covered.
- Trucks associated with demolition works will not track dirt onto the public road network.
- Any dirt on public roads as a result of demolition works will be promptly removed.
- Sufficient parking facilities will be provided on-site for demolition personnel, and heavy vehicles, to ensure that construction and operational traffic associated with demolition works do not utilise public and residential streets or public parking facilities.
- Within the Terminal, vehicles will travel on designated roads where possible and will be limited to a maximum speed of **10 km/hr** in off-road areas, and **25 km/hr** elsewhere.



- The following control measures will be implemented where B-doubles and/or other long vehicles and/or oversized vehicles use the Captain Cook Drive / Solander Street junction:
  - vehicles of this size and nature will only use intersection during daylight hours.
- Oversized vehicles, as determined by RMS, will require approval and appropriate TCP prior to mobilisation.
- Heavy vehicle movements from the demolition works and ACS Management works will be coordinated to ensure that off-site heavy vehicle movements do not exceed 60 movements a day.

#### 4.1.1 Hours of Permitted Vehicle Activities

Vehicle movements for demolition related activities are restricted to the hours shown in **Table 3**.

**Table 3 - Permitted Vehicle Activity Hours**

Day	Time
Monday to Sunday	7:00 am to 10:00 pm

As agreed with SSC, works within the road reserves in Kurnell will not take place during certain major public events at Kurnell. These include:

- Public Holidays;
- Australia Day (26 January);
- The Festival of Kites (May);
- The Boree Regatta (October); and
- Water events for the Australian Scout Jamboree (first two weeks of January 2016).

#### 4.1.2 External Communication

One or more of the following communication methods, where appropriate, will be used to notify potentially affected persons during the pipeline removal works within the road reserves:

- Site meetings with the Community Representative(s);
- The Caltex website (<http://www.caltex.com.au/CommunityAndEnvironment/Pages/KurnellSiteConversion.aspx>);
- Community leaflets/newsletters;
- Meetings and correspondence with interested parties including the SSC and EPA; and
- Discussions with adjoining land owners / neighbours and the community.

## 5 IMPLEMENTATION

### 5.1 Roles and Responsibilities

Overall responsibility for the implementation of this Management Plan rests with Caltex. All employees and Contractors will meet the requirements of this Management Plan and associated procedures. Management actions set out in this Management Plan may be delegated in writing by Caltex to the specific Contractor.

Key Project personnel including the Caltex Demolition Project Lead (and their delegates), Contractor Project Manager will ensure that all management actions are undertaken to a satisfactory standard. A general outline of responsibilities in relation to environmental management is provided below:

#### **Demolition Project Lead / Demolition Execution Superintendent / Demolition Support Services Superintendent**

- Overall accountability for the environmental management of the Project.
- Implementation of the Caltex Environmental Policy with respect to the Project.
- Overall responsibility for development, implementation, maintenance and compliance with this Management Plan.
- Review effectiveness and implementation of this Management Plan following a regulatory non-compliance or incident, or at a minimum of every 12 months during the demolition works
- Review and endorse permitting and approval documentation and TCPs.

#### **All Personnel (Caltex and the Contractor)**

- Comply with the requirements of this Management Plan.
- Report all environmental incidents as they occur.
- Attend environmental inductions or any other training as required.

### 5.2 Induction

Caltex has a site induction program that all contractors and employees are required to complete prior to undertaking any work.

All Caltex employees and the Contractor are required to undertake the Caltex Project Induction before they can commence work on the Project.

### 5.3 Training

All Project personnel will have the experience and necessary training to carry out their required tasks, including in the use of equipment and the implementation of this Management Plan.

Caltex and the Contractor will each maintain a Training Register that records all environmental training completed by its personnel, including records of attendance at awareness training and toolbox talks, as well as competency assessments.

### 5.4 Incident Management

Caltex will continue to implement its existing incident management procedures, including for response to, investigation and reporting of incidents. Traffic related issues and impacts will be managed in accordance with existing incident management procedures (i.e. via *STD – Loss Investigation & Reporting and PROC – Loss/Neat Loss Investigation & Reporting*). In the event of an incident causing environmental harm occurs as a result of demolition works, the Kurnell Pollution Incident Response Management Plan (PIRMP) will be implemented. The PIRMP is designed to manage environmental incidents which may occur on site.

A comprehensive Emergency Management System is currently implemented at the Kurnell Terminal, with associated response and safety equipment held on site. Key personnel are trained to support the implementation of the Emergency Management System. Regular incident training exercises are carried out by Caltex.

### 5.5 Complaints Management

Caltex has a complaint management procedures for the investigation, response and reporting of complaints.

Caltex manages all community complaints in accordance with the requirements of EPL 837, including:

- Reporting complaints in the Annual Return for EPL 837
- Keeping a legible record of all complaints made to Caltex and its Contractors, including:
  - The date and time of the complaint
  - The method by which the complaint was made
  - Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect
  - The nature of the complaint
  - The action taken by Caltex in relation to the complaint, including any follow-up contact with the complainant
  - If no action was taken by Caltex, the reasons why no action was taken

Caltex will continue to operate its 24-hour hotline number (1800 802 385 toll free) to receive feedback and complaints associated with the Project. All feedback and complaints will be relayed to the ER and relayed to the Terminal Manager, Demolition Project Lead (or their delegates), Community Relations Manager and the Environmental Protection Superintendent, as relevant depending on their nature.

Any feedback and complaint records will be logged in the Complaints Register, tracked and where relevant, responded to. Responses to complaints will be made, where reasonably possible, within 48 hours of receiving the complaint.

## **5.6 Performance Indicators**

The following performance indicators will be implemented during the demolition works:

- No collisions caused by demolition works vehicles.
- No vehicle incidents associated with Site access.
- No non-compliances with SSC Road Opening Permits.

## **5.7 Monitoring**

The key monitoring requirements for the demolition works:

- The Demolition Project Lead (or their delegates) will monitor vehicle access to the Site.
- Ensure that TCPs are implemented as detailed.

## **5.8 Reporting**

The reporting requirements include:

- Collisions or near misses will be reported internally in accordance with incident reporting procedures. All incidents will be reported to the appropriate authorities (including where necessary the police) in accordance with normal license and registration laws.

## 5.9 Corrective Action

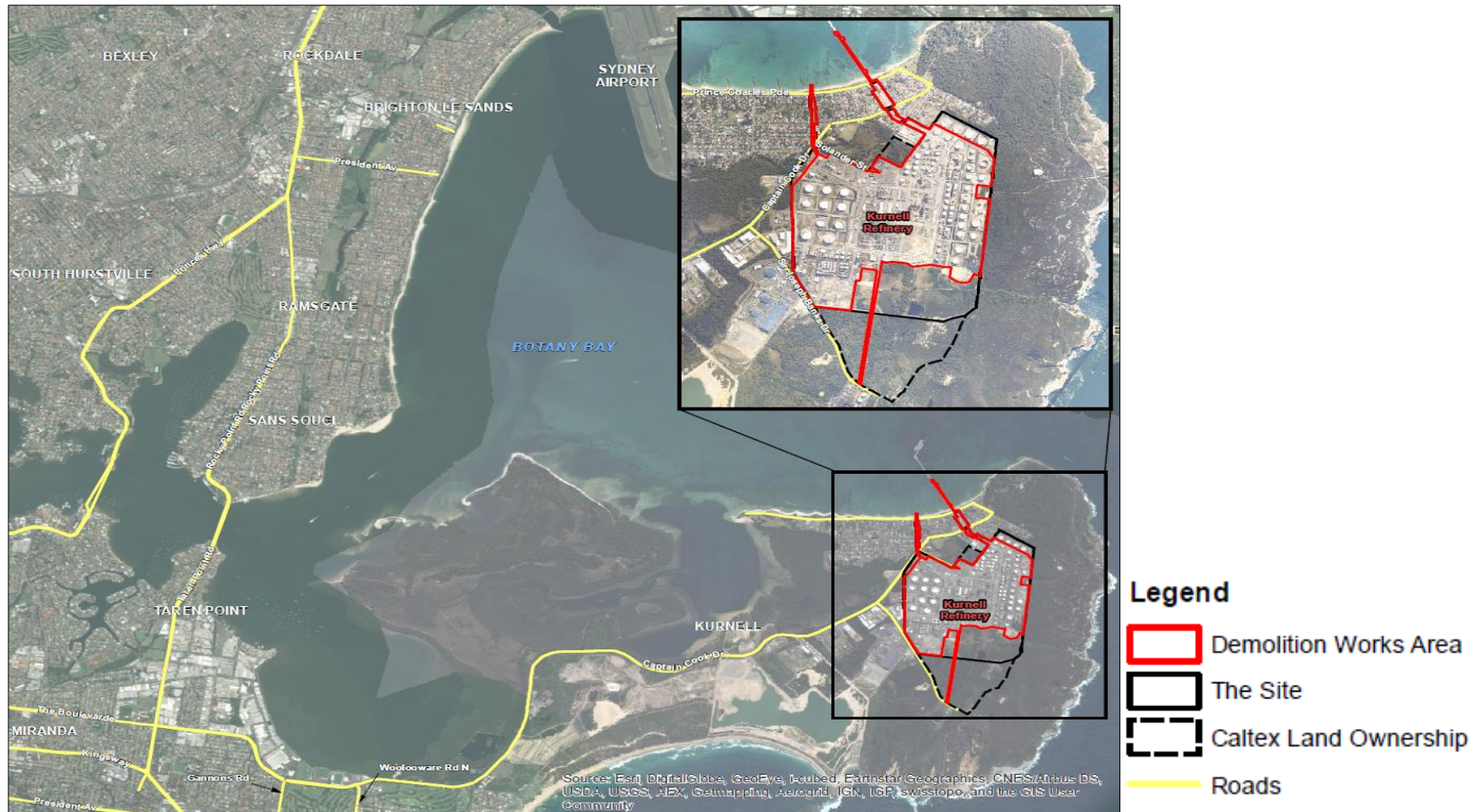
The access requirements by road to the Site are relatively low over the duration of the Project. The increase in road access is not expected to require any specific management strategies.

Caltex owns land that is currently used for vehicle parking and for truck parking and turning. This property will be used for all vehicle parking and turning associated with the Project. There is no requirement for a road opening permit to establish a further access point to the site.

Considerations for safe pedestrian access & movement around worksites will be incorporated into specific TMPs, as required.

The corrective actions to be implemented during the Project include:








- Collisions and non-compliances (e.g. with Conditions of Consent or MMM) will be managed in accordance with incident management procedures (*STD – Loss Investigation & Reporting* and *PROC – Loss/Near Loss Investigation & Reporting*).



(Source: Statement of Environmental Effects, URS November 2014)

**Figure 1 – Local Road Network**



- KEY**
-  The Site
  -  Caltex Land Ownership
  -  ACS Modification Works Area
  -  Pipeways to be excavated
  -  Special General & Special Restricted Soil in Pipeways
  -  Special Hazardous Soil in Pipeways
  -  Containment Cell Works Area

**AECOM**

0 50 100 200 m

Scale: North Arrow

SCALE	1:25,000	SHEET	AS
DATE	01 of 01	COMPASSION NUMBER	DDA 1994 MGA Zone 56
<b>FIGURE 1.2 - PROPOSED ACS MODIFICATION FINAL</b>			
PROJECT			
<b>KURNELL ACS MODIFICATION</b>			
CLIENT			
CALTEX PETROLEUM AUSTRALIA PTY LTD			
DESIGN	DATE	REV #	REV
MJB	24-May-17		
CHECK	DATE		
WM	30/09/2016	G002 04	60488804

**Figure 2 – ACS Management works area**

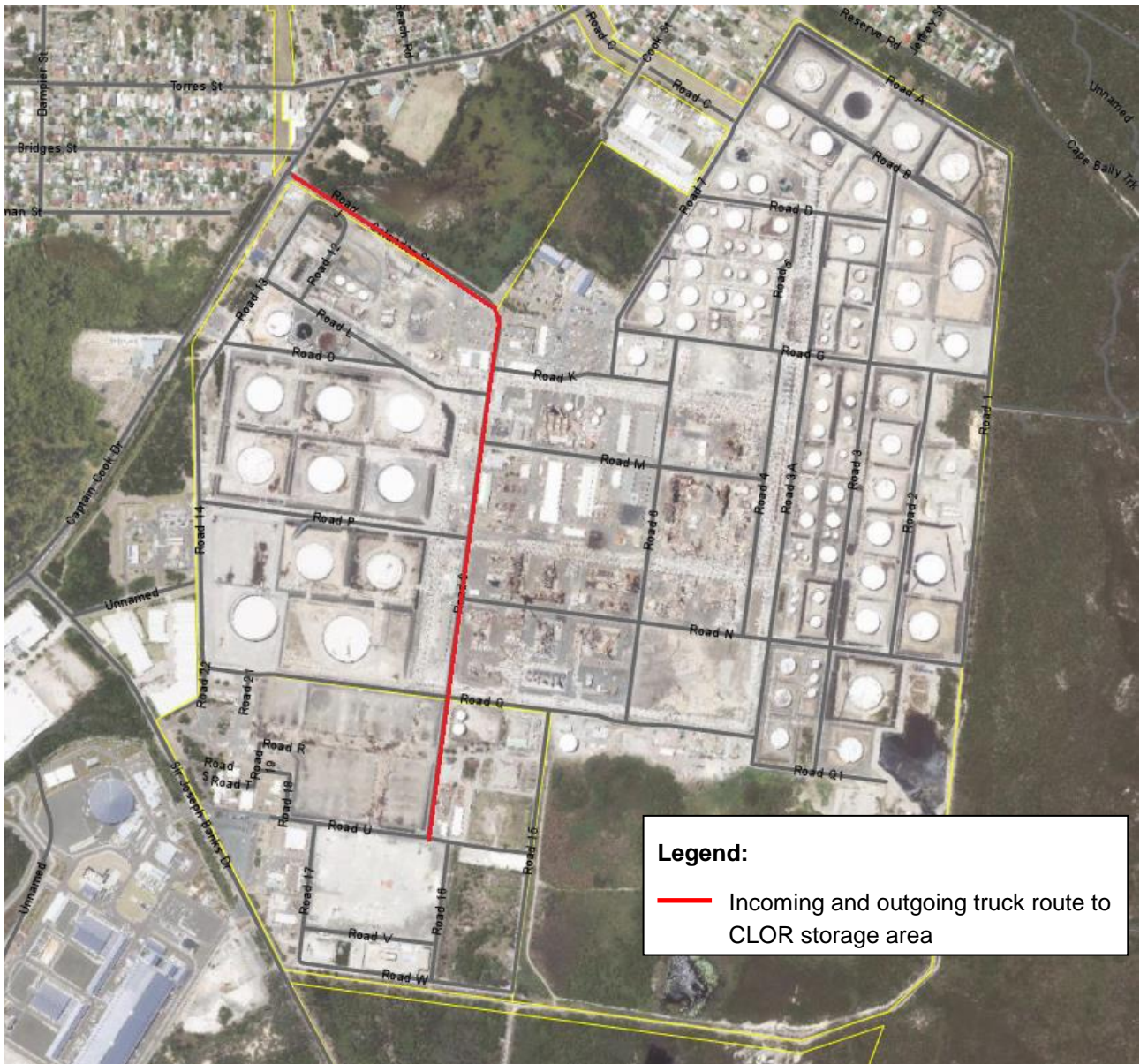


Figure 3 – Internal Terminal Road Routes