

# **CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN**

**Pathways Longueville  
4-12 Northwood Road & 274-274A  
Longueville Road  
Lane Cove**

Prepared For:

**Pathways Property Group Pty Ltd  
40 Chandos St, St Leonards NSW 2065**

Prepared By:

**CareStruct Pty Ltd**



21 September 2020

## DOCUMENT CONTROL REGISTER

|                           |  |
|---------------------------|--|
| <b>Project Reference</b>  | LPPG/21/09/2020  |
| <b>Project Name</b>       | Preparation of a Construction Environmental Management Plan for<br>"LONGUEVILLE" Pathways Property Group Pty Ltd |
| <b>Document Title</b>     | Construction Environmental Management Plan: 4-12 Northwood Road & 274-<br>274A Longueville Road, Lane Cove, NSW  |
| <b>Document Reference</b> | Longueville – Construction EMP (Version 1) – 21/09/2020 - Word   |
| <b>Issue Type</b>         | Electronic   |
| <b>Attention</b>          |  |

| Version | Date            | Document Reference  | Prepared By | Checked By | Approved By |
|---------|-----------------|---|-------------|------------|-------------|
| 1       | 21 Sep.<br>2020 | Longueville – Construction EMP (Version<br>1) 21/09/2020 - Word | ADT         |            |             |
|         |                 |   |             |            |             |
|         |                 |   |             |            |             |

# TABLE OF CONTENTS

|   |           |
|---|-----------|
| <b>1 INTRODUCTION.....</b>                                      | <b>1</b>  |
| 1.1 BACKGROUND .....  | 1         |
| 1.2 LOCATION.....   | 1         |
| 1.3 PROPERTY IDENTIFICATION .....                               | 2         |
| <b>2 ACTIONS SUBJECT TO THIS PLAN .....</b>                     | <b>3</b>  |
| 2.1 PROPOSED DEVELOPMENT .....                                  | 3         |
| 2.2 PROPOSED REMEDIAL ACTIONS.....                              | 3         |
| 2.3 PLANS & DIAGRAMS .....                                      | 3         |
| <b>3 ASSOCIATED REPORTS AND GUIDELINES.....</b>                 | <b>7</b>  |
| 3.1 SITE ASSESSMENT.....  | 7         |
| 3.2 PROPOSED REMEDIATION .....                                  | 7         |
| 3.3 WORK HEALTH & SAFETY .....                                  | 7         |
| <b>4 PLAN GUIDELINES &amp; REQUIREMENTS.....</b>                | <b>8</b>  |
| 4.1 REQUIREMENT.....  | 8         |
| 4.2 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN.....             | 8         |
| 4.2.1 General Format & Scope .....                              | 8         |
| 4.2.2 References & Source Documentation .....                   | 8         |
| 4.2.3 Environmental Impact assessment (EIA) Documentation ..... | 8         |
| 4.2.4 Site Inspection .....                                     | 8         |
| 4.2.5 Type of Plan .....  | 8         |
| 4.2.6 Plan Content.....   | 9         |
| 4.2.7 EMP Implementation .....                                  | 10        |
| 4.2.8 Any Other Information.....                                | 11        |
| <b>5 SOIL, WATER, EROSION &amp; SEDIMENTATION .....</b>         | <b>12</b> |
| 5.1 SAUSAGE BARRIER.....  | 13        |
| 5.2 SANDBAG KERB SEDIMENT TRAP .....                            | 13        |
| 5.3 SEDIMENT FENCE .....  | 14        |
| <b>6 AIR QUALITY &amp; DUST MANAGEMENT.....</b>                 | <b>15</b> |
| <b>7 ASBESTOS MANAGEMENT &amp; MONITORING .....</b>             | <b>16</b> |
| <b>8 NOISE &amp; VIBRATION .....</b>                            | <b>17</b> |
| <b>9 REMOVAL OF UPSS.....</b>                                   | <b>18</b> |
| 9.1 INTRODUCTION.....   | 18        |
| 9.2 REMOVAL PROCESS .....                                       | 18        |
| 9.3 LEGISLATION & REGULATIONS.....                              | 18        |
| 9.4 SPECIFIC REQUIREMENTS TO BE MET .....                       | 19        |
| 9.4.1 Occupational Health and Safety Requirements .....         | 19        |
| 9.4.2 UPSS Regulation Requirements .....                        | 20        |
| 9.5 PLANNING REQUIREMENTS .....                                 | 20        |
| 9.6 INDUSTRY BEST PRACTICE .....                                | 21        |
| 9.7 RAP GUIDELINES.....   | 21        |
| <b>10 WASTE MANAGEMENT &amp; CONTROL.....</b>                   | <b>22</b> |
| <b>11 TRAFFIC.....</b>  | <b>23</b> |
| 11.1 TRAFFIC MANAGEMENT & CONTROL PLAN .....                    | 23        |
| 11.2 TRAFFIC ENTRY & EXIT POINTS .....                          | 24        |
| 11.3 APPROACH & EXIT TRAFFIC CONTROLS .....                     | 24        |
| <b>12 UNEXPECTED FINDS &amp; EVENTS.....</b>                    | <b>26</b> |
| <b>13 FLORA, FAUNA &amp; ECOLOGICAL MANAGEMENT .....</b>        | <b>26</b> |
| <b>14 LANDSCAPING .....</b>                                     | <b>26</b> |
| <b>15 REHABILITATION .....</b>                                  | <b>26</b> |
| <b>16 HERITAGE ISSUES.....</b>                                  | <b>27</b> |
| <b>17 CONTACT DETAILS.....</b>                                  | <b>27</b> |
| <b>18 AUTHORISATION &amp; LIMITATIONS.....</b>                  | <b>28</b> |
| <b>19 SHORINGCO AUTHORISATION.....</b>                          | <b>28</b> |

## LIST OF DIAGRAMS

| FIGURE | DESCRIPTION  | PAGE |
|--------|--|------|
| 1.1    | Location of the Aged Care Facility                           | 1    |
| 1.2    | Satellite Photograph of Site Location                        | 2    |
| 2.1    | Site Plan  | 4    |
| 2.2    | Location of Underground Tanks & Former Buildings             | 5    |
| 2.3    | Soil Bore Locations  | 6    |
| 4.1    | Construction EMP Structure & Content                         | 9    |
| 4.2    | Construction EMP Content Check List                          | 10   |
| 5.1    | Typical Sausage Barrier                                      | 13   |
| 5.2    | Typical Sandbag Kerb Sediment Trap                           | 13   |
| 5.3    | Typical Sediment Fence                                       | 14   |
| 11.1   | Traffic Entry & Exit Points                                  | 24   |
| 11.2   | Traffic Controls for Trucks Approaching and Exiting the Site | 25   |

# 1 INTRODUCTION

## 1.1 BACKGROUND

Pathways Property Group, is involved in the planning and prospective development of an Aged Care Facility at 4-12 Northwood Road & 274-274A Longueville Road, Lane Cove

The Development Application has been lodged, DA113/2020

The site is undergoing a voluntary remediation under the State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55).

This document describes those remedial works in the form of a Construction Environmental Management Plan.

## 1.2 LOCATION

Figure 1.1, below, provides a road map identifying the site location. The direction of north is towards the top of the diagram; a scale is provided beneath the diagram, and the subject site is shown shaded in blue.



**Figure 1.1 – Location of the Mixed use RACF Building**

A recent satellite photograph of the site and immediate surrounding areas, is provided in Figure 1.2 on the following page.



**Figure 1.2 – Satellite Photograph of Site Location**

The properties under consideration are bounded by Northwood and Longueville Road to the West; by residential properties to the North and South; by bushland to the East

### 1.3 PROPERTY IDENTIFICATION

The total site area under consideration is variously referred to as:

- 4 – 12 Northwood Road & 274 – 274A Longueville Road, Lane Cove

## 2 ACTIONS SUBJECT TO THIS PLAN

### 2.1 PROPOSED DEVELOPMENT

The proposed development is an Aged Care and Mixed Use Building

The proposed Mixed Use development is summarised as follows:

#### **Building Composition**

**Basement 3:**

Parking, Hydrotherapy Pool, Laundry

**Basement 2:**

Parking, Kitchen, RACF

**Basement 1:**

Parking, RACF

**Ground Floor:**

RACF offices and reception, Mixed Use

**First Floor:**

RACF

**Second Floor:**

RACF

### 2.2 PROPOSED REMEDIAL ACTIONS

- Remedial actions proposed for the site are described in the associated document *Remediation Action Plan (E24062.E06\_Rev0 Longueville RAP)* the “RAP”, and it has been assumed that those with an interest in this Construction EMP will have access to and be familiar with the contents of that RAP.

### 2.3 PLANS & DIAGRAMS

Diagrams relevant to this Construction Environmental Management Plan (CEMP) are provided on subsequent pages, as follows:

Figure 2.1      Site Plan

Figure 2.2      Location of Underground Tanks & Former Buildings

Figure 2.3      Soil Bore Location



Figure 2.1 Site Plan

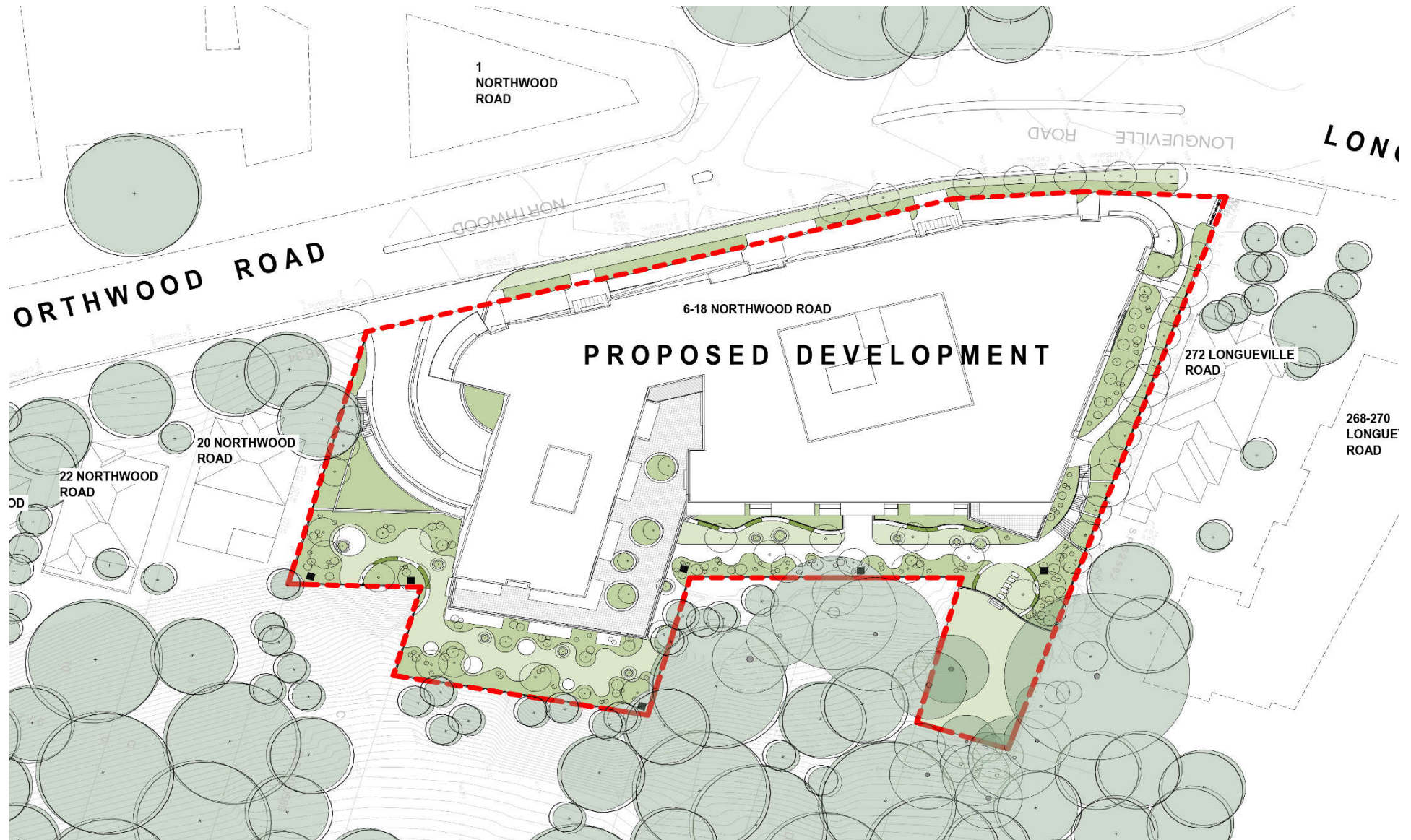




Figure 2.2 Location of Underground Tanks & Former Buildings



Figure 2.3 Soil Bore Location



### **3 ASSOCIATED REPORTS AND GUIDELINES**

#### **3.1 SITE ASSESSMENT**

Details of the environmental investigation and assessment of the site are provided in the flowing document:

- ❑ *Stage 1 Site Contamination Assessment Report – 45217.01*

This document has been referred to in this Construction EMP as the “SIA”.

#### **3.2 PROPOSED REMEDIATION**

Details of remedial works are provided in the following document:

- ❑ *Remediation Action Plan – E24062.E06\_Rev0*

This document has been referred to in this Construction EMP as the “RAP”.

#### **3.3 WORK HEALTH & SAFETY**

Details of work health and safety requirements, guidelines and practices are provided in the document:

- ❑ *Sub-Contractor Safety Plan (Shoringco, 2020)*

This document has been referred to in this Construction EMP as the “WH&SP”.

## **4 PLAN GUIDELINES & REQUIREMENTS**

### **4.1 REQUIREMENT**

The prospective development at Longueville is currently under development application approval process.

Current remediation works fall under SEPP 55 voluntary site remediation requiring no consent. The RAP provides all remediation tasks and requirements and is to be read in conjunction with the CEMP.

### **4.2 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN**

This document presents the Construction EMP for the development. The scope and format of the EMP are as follows:

#### **4.2.1 General Format & Scope**

The Plan has been developed in a manner consistent with the guidelines provided in the Planning NSW document Guideline for the Preparation of Environmental Management Plans (2004).

This document provides an accepted reference for the preparation of Environmental Management Plans for submission to local government consent authorities.

#### **4.2.2 References & Source Documentation**

The Plan has been developed in accordance with the requirements of the Environmental Planning & Assessment Act 1979 (EP&A Act). Parts 4 and 5 of the Act are relevant to the Planning NSW EMP

Guidelines referred to in 4.2.1 above.

#### **4.2.3 Environmental Impact assessment (EIA) Documentation**

The following documentation has been considered in the preparation of the Plan:

- ☐ An environmental impact statement (EIS), or statement of environmental effects (SEE) or review of environmental factors (REF);
- ☐ Concurrence reports from other agencies or local councils (if applicable);
- ☐ Conditions of approval or consent; and
- ☐ Any other relevant approvals, licences or permits required.

#### **4.2.4 Site Inspection**

Inspections of the site and immediately surrounding areas were undertaken between February 13<sup>th</sup> and 20<sup>th</sup> 2020, and the findings of these site inspections have been taken into account in the EMP presented in this document.

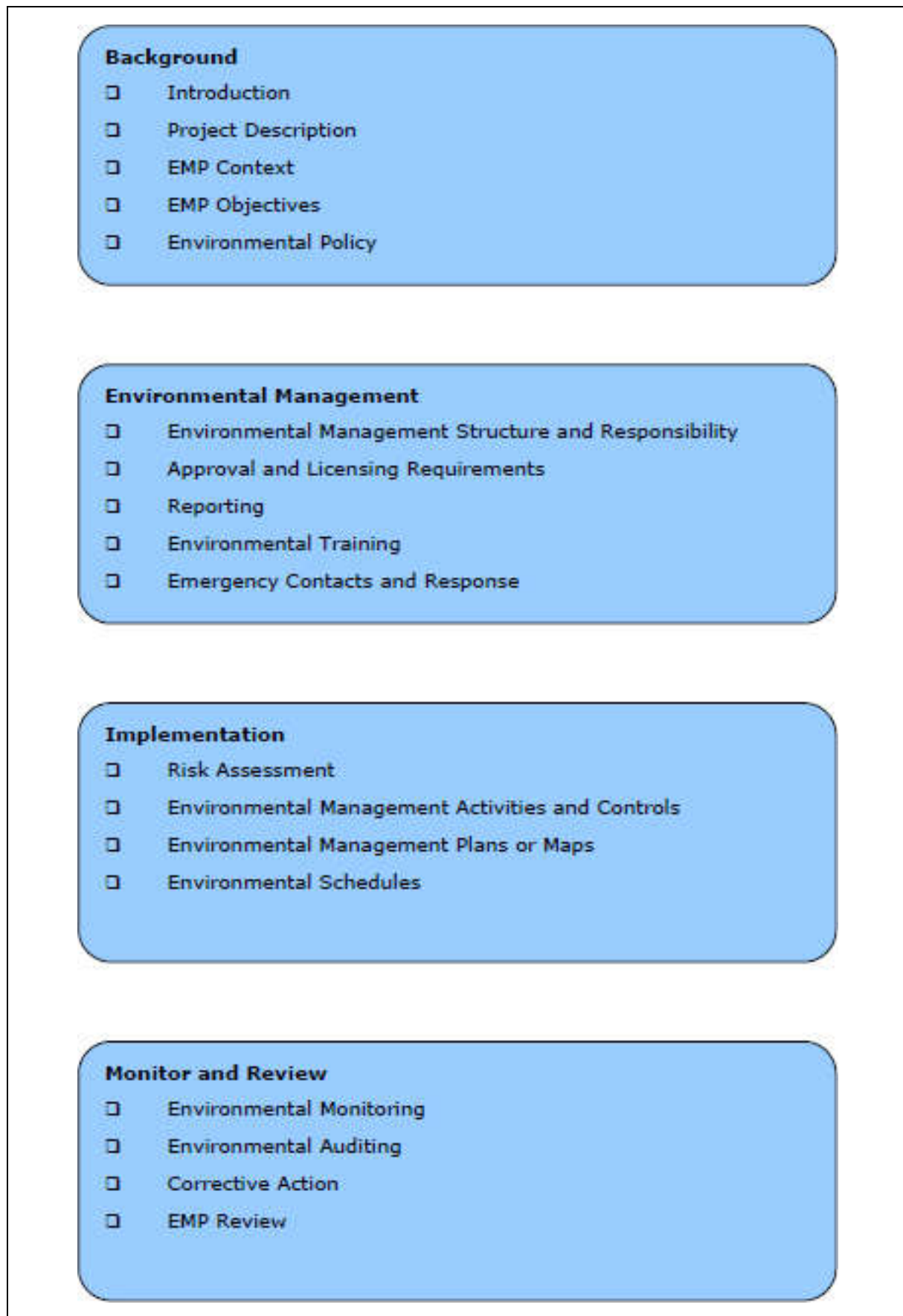
#### **4.2.5 Type of Plan**

The type of Plan prepared, and presented in this document, is a Construction EMP. The purpose of this type of Plan is to ensure that appropriate environmental management and where necessary site rehabilitation practices are followed during project construction.



#### 4.2.1 Plan Content

The information and guidelines proposed to be included in the Plan are indicated in Figure 3.1, below.



**Figure 4.1 – Construction EMP Structure & Content**



A check list for the content of the Plan is provided in Figure 4.2, below.

| Does Your EMP Contain   | Yes | No |
|---|-----|----|
| <b>Background (EMP Guideline Section 4.3.1)</b>               |     |    |
| Introduction  |     |    |
| Project Description   |     |    |
| EMP Context   |     |    |
| EMP Objectives  |     |    |
| Environmental Policy  |     |    |
| <b>Environmental Management (EMP Guideline Section 4.3.2)</b> |     |    |
| Environmental Management Structure & Responsibility           |     |    |
| Approval and Licensing Requirements                           |     |    |
| Reporting   |     |    |
| Environmental Training  |     |    |
| Emergency Contacts and Response                               |     |    |
| <b>Implementation (EMP Guideline Section 4.3.3)</b>           |     |    |
| Risk Assessment   |     |    |
| Environmental Management Activities and Controls              |     |    |
| Environmental Control Plans or Maps                           |     |    |
| Environmental Schedules                                       |     |    |
| <b>Monitoring and Review (EMP Guideline Section 4.3.4)</b>    |     |    |
| Environmental Monitoring                                      |     |    |
| Environmental Auditing  |     |    |
| Corrective Action   |     |    |
| EMP Review  |     |    |

**Figure 4.2 - Construction EMP Content Check List**

#### 4.2.2 EMP Implementation

The implementation section of the Plan has been presented on an issues based format. This has involved organising the environmental impacts, management activities and controls under each identified environmental issue. Typical environmental issues considered in the Plan include:

- ☐ Erosion and sedimentation;
- ☐ Water quality;
- ☐ Groundwater;
- ☐ Air quality;
- ☐ Flora & fauna (as applicable);
- ☐ Rehabilitation (as applicable);
- ☐ Heritage issues (as applicable);
- ☐ Noise & vibration;
- ☐ Waste
- ☐ Hazardous materials; and
- ☐ Traffic.

Tables have been created for each environmental issue, and relevant control measures included.

The tables also show the person responsible for control action, the timing/frequency of implementation of control actions as appropriate; and provision for sign off and dating.

#### **4.2.3 Any Other Information**

The Construction EMP for the Longueville Development 4–12 Northwood Road & 274–274A Longueville Road, Lane Cove project also includes provision of any other relevant information, instructions and controls, including unexpected events and findings that might apply during the construction process.

## 4 SOIL, WATER, EROSION & SEDIMENTATION

The Soil, Erosion & Sedimentation Management Plan for the project is set out below.

| <b>Soil, Water, Erosion &amp; Sedimentation Management Plan</b> |   |
|---|---|
| <b>Objective</b>  | <ul style="list-style-type: none"> <li><input type="checkbox"/> To comply with section 120 of the Protection of the Environment Operations Act 1997, which prohibits the pollution of waters</li> <li><input type="checkbox"/> To minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities</li> </ul>   |
| <b>Statutory Requirements</b>                                   | <ul style="list-style-type: none"> <li><input type="checkbox"/> Sutherland Shire Council &amp; NSW Land &amp; Environment Court Conditions of Approval</li> <li><input type="checkbox"/> Environmental Planning &amp; Assessment Act 1979 and Regulations.</li> <li><input type="checkbox"/> Protection of the Environment and Operations Act, 1997</li> <li><input type="checkbox"/> Water Management Act 2000</li> <li><input type="checkbox"/> Guidelines contained in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 published by ANZECC</li> </ul>  |
| <b>Performance Criteria</b>                                     | <ul style="list-style-type: none"> <li><input type="checkbox"/> No turbid waters entering stormwater systems</li> <li><input type="checkbox"/> Adherence to relevant legislation</li> </ul>   |
| <b>Mitigation Measures</b>                                      | <ul style="list-style-type: none"> <li><input type="checkbox"/> Identification of all stormwater drains and pits on or near the site and installation of required water management controls as required.</li> <li><input type="checkbox"/> Sediment control devices will be installed before works commence, to prevent impacts on local water systems.</li> <li><input type="checkbox"/> Sediment controls to be maintained and regularly inspected, in particular after rain events.</li> <li><input type="checkbox"/> Stormwater runoff will be controlled by diverting stormwater from bare areas to existing infrastructure, and minimising slope gradients, lengths and runoff velocities</li> <li><input type="checkbox"/> Areas of bare surfaces will be minimised during construction and stabilised as soon as practicable.</li> <li><input type="checkbox"/> Stripped topsoil will be stockpiled for reuse on site in revegetation areas where possible, and protected from erosion by using suitable erosion control measures. Excess soil or unsuitable spoil material will be taken off site and disposed at an approved disposal facility.</li> <li><input type="checkbox"/> Construction vehicles will use sealed roads wherever possible.</li> <li><input type="checkbox"/> In the event of a spillage, spilled material will be removed as soon as practicable within the working day of the spillage.</li> </ul> |
| <b>Monitoring</b>   | <ul style="list-style-type: none"> <li><input type="checkbox"/> The effectiveness of the sediment and erosion control system will be monitored by daily inspections</li> <li><input type="checkbox"/> The quality of surface water discharges from site will be monitored visually and during and after rainfall events by the Shoringco Pty Ltd Site Manager, Mr Radwan El-Helou.</li> <li><input type="checkbox"/> If required, the Site Manager may seek additional advice from the project Environmental Consultant (as appointed from time to time) to establish if further controls are necessary to ensure the maintenance of appropriate soil and water quality.</li> </ul>   |
| <b>Responsible Person</b>                                       | <ul style="list-style-type: none"> <li><input type="checkbox"/> Shoringco Pty Ltd's appointed Site Manager Mr Radwan El-Helou.</li> </ul>   |
| <b>Reporting</b>  | <ul style="list-style-type: none"> <li><input type="checkbox"/> The Site Manager will be responsible for day to day management, and for reporting non-conforming soil and water quality incidents to the Pathways Property Group's Construction Project Manager or the Project Environmental Consultant as appropriate.</li> <li><input type="checkbox"/> The Site Manager shall be responsible for reporting any incident which causes or threatens to cause material environmental harm or breaches to the Pathways Property Group's Construction Project Manager as soon as possible.</li> </ul>   |
| <b>Corrective Actions</b>                                       | <ul style="list-style-type: none"> <li><input type="checkbox"/> Should an incident in relation to discharge water quality occur, one or more of the following corrective actions shall be implemented by Shoringco Pty Ltd: <ol style="list-style-type: none"> <li>1. An investigation will be undertaken by the Site Manager to determine the cause of the problem;</li> <li>2. The Soil &amp; Water Quality Management Plan or work practices for the activity shall be modified as necessary to reduce erosion /pollution, sedimentation or turbidity as required;</li> <li>3. If water containment structures or sediment control devices are not operating effectively, they will be repaired or replaced. Sediment will be removed immediately following rainfall events when the operating capacity of the devices is impaired.</li> <li>4. If required, water quality monitoring will be undertaken in conjunction with the project Environmental Consultant to ensure appropriate performance and compliance.</li> </ol> </li> </ul>   |

The following typical control mechanisms are identified for reference and convenience in relation to soil, water, erosion and sediment control activities as summarised in the Plan:

## 4.1 SAUSAGE BARRIER

Sausage barriers can provide an effective mechanism to prevent sediments generated by project activities entering local drains. A typical sausage barrier is illustrated in Figure 5.1, below.

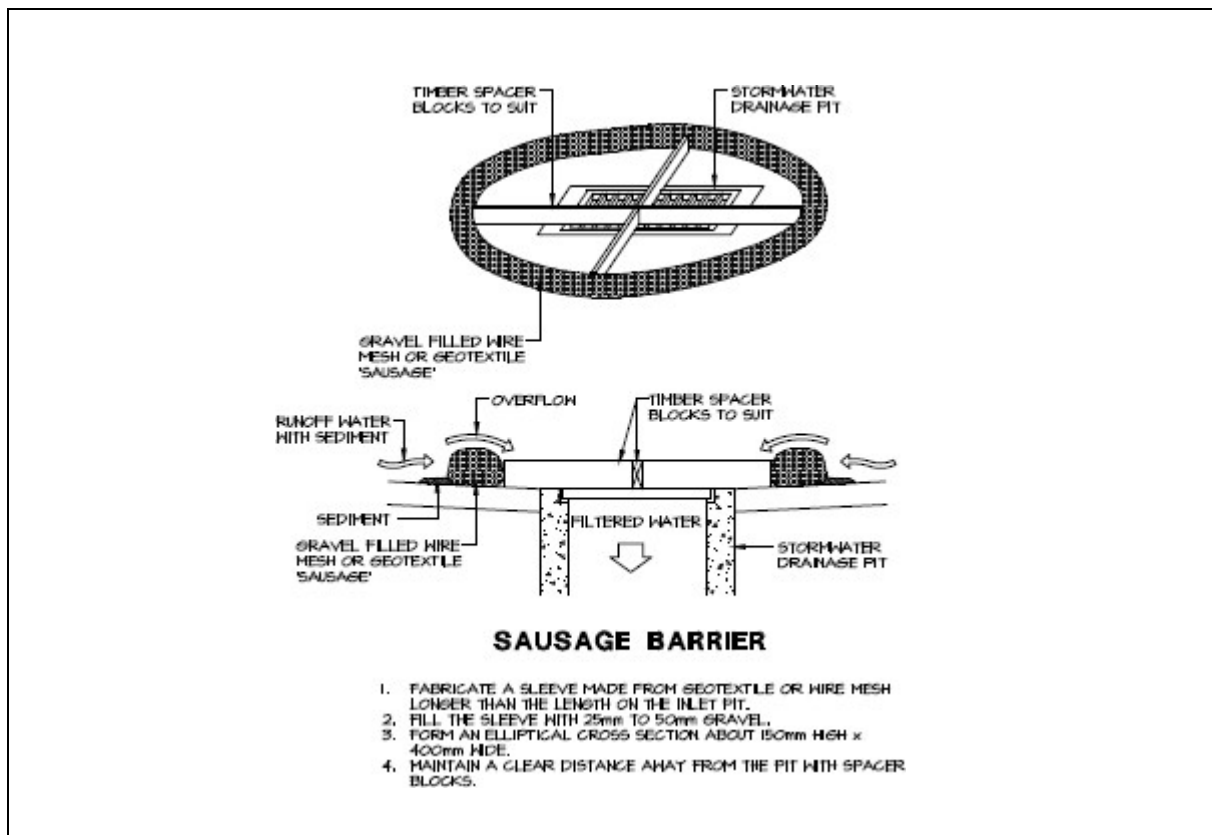


Figure 5.1 – Typical Sausage Barrier

## 4.2 SANDBAG KERB SEDIMENT TRAP

Sandbag kerb sediment traps are another useful mechanism to protect sediments from entering local waters. A typical sandbag kerb sediment trap is illustrated in Figure 5.2, below.

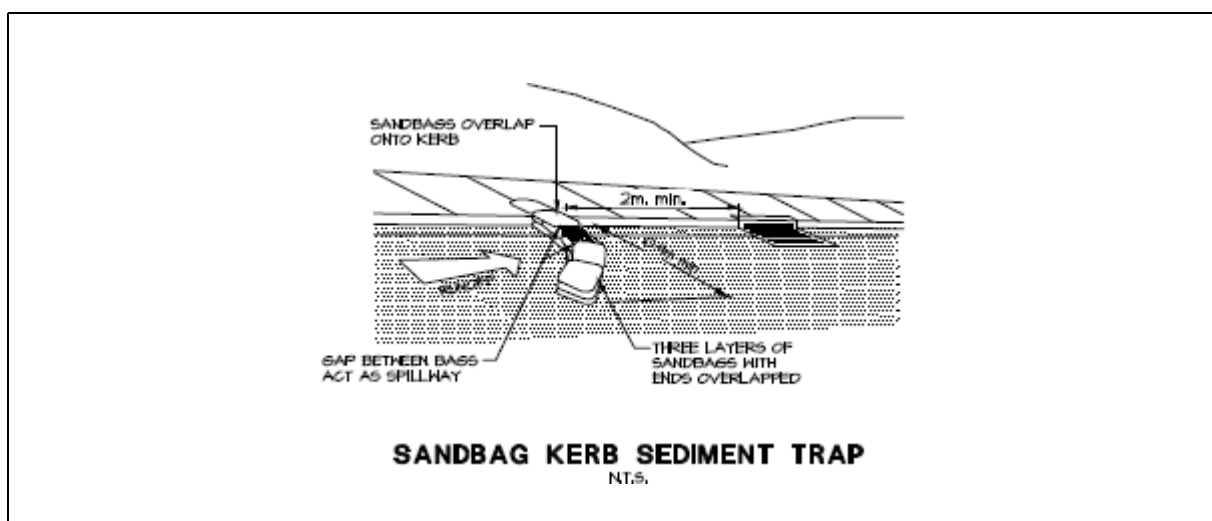
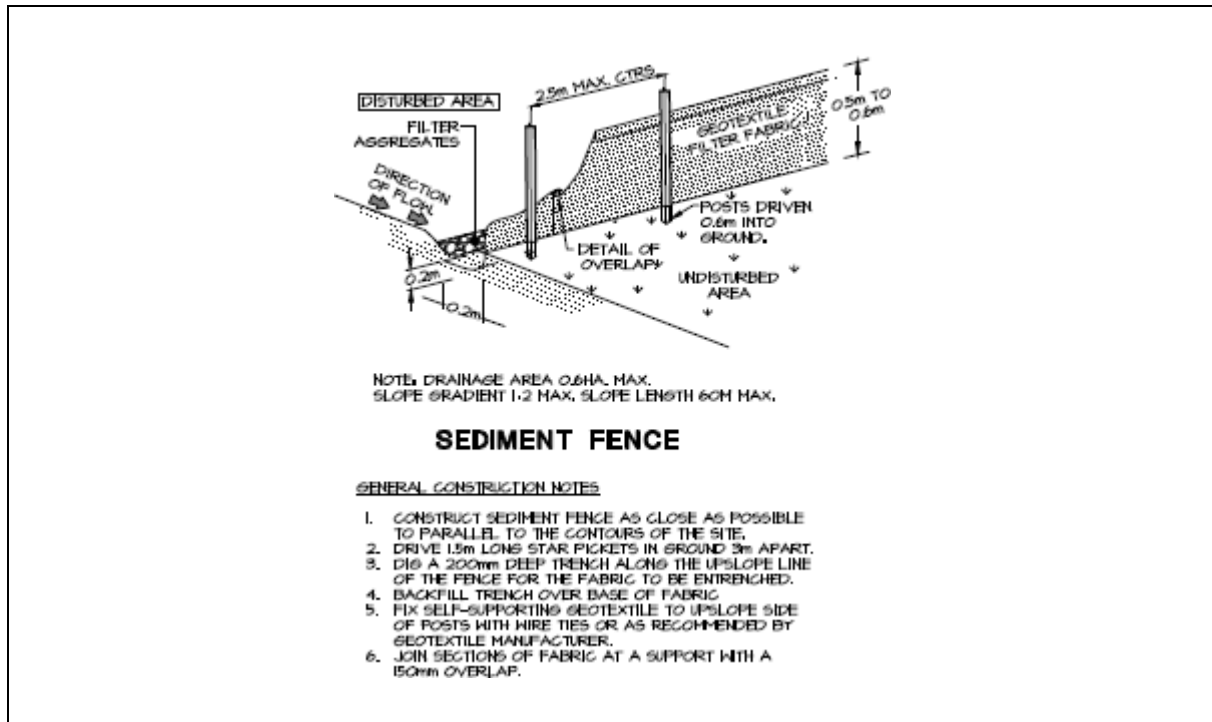


Figure 5.2 – Typical Sandbag Kerb Sediment Trap

### 4.3 SEDIMENT FENCE

A sediment fence is a temporary sediment control device used on construction sites to protect nearby water systems, including drains, from sediment (loose soil) in stormwater runoff from the site.

A typical sediment fence design is provided in Figure 5.3 below for convenient reference.



**Figure 5.3 – Typical Sediment Fence**

Further information regarding these and other alternative and complementary control devices and mechanisms can be obtained from ACOR Hydraulic and Civil, whose contact details are provided in Section 15 of the Construction EMP.



## 5 AIR QUALITY & DUST MANAGEMENT

The Air Quality & Dust Management Plan for the project is set out below.

| <b>Air Quality &amp; Dust Management Plan</b> |   |
|---|---|
| <b>Objective</b>                              | <ul style="list-style-type: none"> <li><input type="checkbox"/> To conduct works in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust.</li> <li><input type="checkbox"/> To undertake all construction activities with the objective of preventing visible emissions of dust from the site.</li> <li><input type="checkbox"/> To identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease should visible dust emissions occur at any time.</li> <li><input type="checkbox"/> To meet the relevant air quality standards for preventing degradation of ambient air quality and nuisance to adjoining properties during construction and transport activities.</li> </ul>  |
| <b>Statutory Requirements</b>                 | <ul style="list-style-type: none"> <li><input type="checkbox"/> Environment Operation Act 1997 (POEO Act) and Regulations.</li> <li><input type="checkbox"/> Protection of the Environment Operations (Clean Air) Regulation 2010</li> <li><input type="checkbox"/> Environmental Planning &amp; Assessment Act 1979 and Regulations</li> </ul>   |
| <b>Performance Criteria</b>                   | <ul style="list-style-type: none"> <li><input type="checkbox"/> Compliance with the relevant requirements of the Project Approval.</li> <li><input type="checkbox"/> No significant quantities of visible dust blowing onto adjoining sites</li> <li><input type="checkbox"/> No complaints from nearby residents</li> </ul>  |
| <b>Mitigation Measures</b>                    | <ul style="list-style-type: none"> <li><input type="checkbox"/> Dust emissions will be controlled by the use of water spraying when required.</li> <li><input type="checkbox"/> Dust screens will be used at the perimeter of the site where applicable</li> <li><input type="checkbox"/> Heavy vehicles entering and leaving the site will be covered at all times;</li> <li><input type="checkbox"/> Works involving potential dust generating activities will be scheduled to avoid gale wind forces (above 63 km/hr) when possible</li> <li><input type="checkbox"/> Vehicle and machinery movements during the construction works will be restricted to designated areas.</li> <li><input type="checkbox"/> Vehicle speed limits of 10 km/hr will be imposed on all vehicles on site.</li> <li><input type="checkbox"/> Equipment will be operated in a proper, efficient and correct manner which includes proper maintenance in order to minimise exhaust emissions.</li> <li><input type="checkbox"/> Should visible dust emissions occur at any time, works generating the dust emissions will cease, so that emissions of visible dust cease.</li> <li><input type="checkbox"/> Odour emissions from the site which could adversely affect air quality or the amenity of the local area are to be monitored.</li> </ul> |
| <b>Monitoring</b>                             | <ul style="list-style-type: none"> <li><input type="checkbox"/> Ongoing visual surveillance of dust emissions, dust controls, and plant and vehicle exhaust emissions</li> <li><input type="checkbox"/> Weather and physical parameters such as wind speed, rain, temperature, humidity will be utilised to assist in programming works</li> </ul>  |
| <b>Responsible Person</b>                     | <ul style="list-style-type: none"> <li><input type="checkbox"/> Shoringco Pty Ltd's appointed Site Manager Mr Radwan El-Helou.</li> </ul>   |
| <b>Reporting</b>                              | <ul style="list-style-type: none"> <li><input type="checkbox"/> The Site Manager will be responsible for day to day management, and for reporting non-conforming air quality activities to the Pathways Property Group's Construction Project Manager. The Site Manager shall be responsible for reporting any incident which causes or threatens to cause material environmental harm or breaches to the Pathways Property Group's Construction Project Manager, as soon as possible.</li> </ul>   |
| <b>Corrective Actions</b>                     | <ul style="list-style-type: none"> <li><input type="checkbox"/> Should an incident or failure to comply with relevant statutes, standards or Project Consent Conditions occur in relation to dust or other air quality emissions from project activities, one or more of the following corrective actions will be implemented by the Site Manager as appropriate: <ol style="list-style-type: none"> <li>1. Undertake an investigation to determine the cause of the problem and assess processes to identify any significant sources of emissions and if required, modify activities/processes.</li> <li>2. Increase the use of dust or other emission control measures (e.g. water spraying in the case of dust)</li> <li>3. Obtain advice from the project Environmental Consultant, if required.</li> </ol> </li> </ul>   |

## 6 ASBESTOS MANAGEMENT & MONITORING

Materials containing asbestos may be encountered during both the remediation works, subsequent demolition of existing structures and bulk excavation.

An Asbestos Management and Monitoring Plan for the project, intended to augment and complement the Air Quality & Dust Management Plan presented in the previous Section, is set out below.

| <b>Asbestos Management &amp; Monitoring Plan</b> |  |
|--|--|
| <b>Objective</b>                                 | <ul style="list-style-type: none"> <li><input type="checkbox"/> To conduct all works in a manner that ensures any material containing asbestos that is encountered during the remedial and development works at the site will be handled, treated and disposed of in a manner that ensures no risk of asbestos impact or exposure to any worker or other individual at or in the vicinity of the site.</li> <li><input type="checkbox"/> To ensure specifically that: <ul style="list-style-type: none"> <li>• Appropriate airborne asbestos monitoring is used during any works involving materials known or suspected to contain asbestos</li> <li>• Any soils known or suspected to contain asbestos are handled and stored (or stockpiled) at the site in accordance with the provisions of the RAP, including isolation by security fencing; water spraying to avoid dust generation and covering with plastic or geotextile fabric as required; and</li> <li>• Any materials containing as asbestos are handled, transported and disposed of in accordance with all relevant protocols, regulations and guidelines (refer RAP and this document).</li> </ul> </li> </ul> |
| <b>Statutory Requirements</b>                    | <ul style="list-style-type: none"> <li><input type="checkbox"/> WorkCover NSW How to Safely Remove Asbestos Code of Practice December 2011</li> <li><input type="checkbox"/> WorkCover NSW, How to Manage and Control Asbestos in the Workplace Code of Practice, December 2011</li> <li><input type="checkbox"/> Australian Government, National Occupational Health and Safety Commission, Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)]</li> <li><input type="checkbox"/> Australian Government, National Occupational Health and Safety Commission, Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC: 2006 (1990)]</li> </ul>   |
| <b>Performance Criteria</b>                      | <input type="checkbox"/> Avoidance of any risk of exposure to asbestos or any materials containing or suspected to contain asbestos  |
| <b>Mitigation Measures</b>                       | A small identified area of suspected asbestos contaminated soil has been identified at the site, and forms part of the remediation works proposed for the site, and described in the RAP. Section 5.5.3/Appendix C of the RAP provides a detailed work plan, these measures form part of this Construction EMP.  |
| <b>Monitoring</b>                                | <ul style="list-style-type: none"> <li><input type="checkbox"/> Installation and use of airborne asbestos monitors as required, and as advised by the Environmental Consultant</li> <li><input type="checkbox"/> Ensure all applicable asbestos handling, transport and disposal protocols are applied at all times</li> </ul>   |
| <b>Responsible Person</b>                        | <input type="checkbox"/> Shoringco Pty Ltd's appointed Site Manager Mr Radwan El-Helou.  |
| <b>Reporting</b>                                 | <input type="checkbox"/> The Site Manager will be responsible for day to day management, and for reporting of any non-conforming asbestos issues to the Pathways Property Group's Construction Project Manager and to the Environmental Consultant   |
| <b>Corrective Actions</b>                        | <ul style="list-style-type: none"> <li><input type="checkbox"/> Should an incident or failure to comply with relevant statutes, standards or Project Consent Conditions occur in relation to asbestos handling, storage or disposal procedures the Site Manager will as appropriate: <ol style="list-style-type: none"> <li>1. Cease any work processes associated with the incident</li> <li>2. Obtain advice from the Environmental Consultant, if required</li> <li>3. Ensure that appropriate corrective and control actions are taken</li> </ol> </li> </ul>  |

In addition to the guidelines provided above, it is noted that asbestos removal must be undertaken by appropriately licensed contractors. There are two licences for asbestos removal. They are:

### Licence

Class A  
Class B

### Actions

To remove friable asbestos  
To remove bonded asbestos

## 7 NOISE & VIBRATION

The Noise & Vibration Management Plan for the project is set out below.

| Noise Management Plan       |  |
|-----------------------------|--|
| <b>Objective</b>            | <ul style="list-style-type: none"> <li>To meet appropriate noise standards so as to minimise any impacts of construction noise works on noise sensitive land uses.</li> </ul>  |
| <b>Requirements</b>         | <ul style="list-style-type: none"> <li>Australian Standard AS 2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition on Sites.</li> <li>NSW Interim Construction Noise Guideline (2009)</li> <li>Protection of the Environment Operations Act 1997</li> <li>Preliminary Environmental Assessment (Refer Section 4)</li> </ul>  |
| <b>Performance Criteria</b> | <ul style="list-style-type: none"> <li>Undertake works in accordance with relevant standards and guidelines.</li> <li>Construction noise with an adverse impact on amenity is defined as an average noise of 45dB(A) or any singular noise event with a maximum noise level of 60dB(A) at a noise receiver (such as a domestic premise). EPA 425/17</li> </ul>   |
| <b>Mitigation Measures</b>  | <ul style="list-style-type: none"> <li>An awareness program for construction personnel on noise minimisation will be incorporated into site induction training. The awareness program will include discussion of mitigation measures as outlined in this Noise Management Plan. <ol style="list-style-type: none"> <li>Where applicable and practical, residential class mufflers and engine shrouds (acoustic lining) will be used on all construction equipment.</li> <li>All equipment will be maintained in good order including mufflers, enclosures and bearings to ensure unnecessary noise emissions are eliminated.</li> <li>Plant and equipment will be used appropriately. This includes reasonable work practices with no extended periods of 'revving', idling or 'warming up' within the proximity of existing residential receivers. Plant will be turned off when not being used. Any excessively loud activities will be scheduled during periods of the day when higher ambient noise levels are apparent. Where possible, noisy plant will be located away from potentially noise affected neighbours.</li> <li>Where reasonable, respite periods will be utilised for any particularly noisy activities.</li> <li>Workers will avoid dropping materials from height.</li> <li>Noisy activities will be planned, where possible, for parts of the day when they would have the least impact</li> <li>Vibration will be minimised by restricting hammering where possible and around existing buildings.</li> <li>Undertake construction activities that will generate an audible noise at any residential premises during the following hours: <ol style="list-style-type: none"> <li>Monday to Friday (inclusive) - 7:00am to 5:30pm</li> <li>Saturday - 7:00am to 4:00pm</li> <li>At no time on Sundays or public holidays (excepting COVID conditions)</li> </ol> <p>Note: This does not apply in the event of a direction from police or other relevant authority for safety reasons.</p> </li> </ol> </li> </ul> |
| <b>Monitoring</b>           | <ul style="list-style-type: none"> <li>Noise compliance monitoring will be conducted, if required, by the EMF Griffiths Acoustic Consultant at affected residential receptors during noisy activities.</li> <li>Results will be recorded as L10 and Leq (as relevant) and compared against relevant performance criteria.</li> <li>It is anticipated that the mitigation measures described should be sufficient for construction work to proceed without causing undue noise impact.</li> <li>If complaints are received, monitoring shall be undertaken by the EMF Griffiths Acoustic Consultant according to NSW EPA guidelines and Australian Standard 1055.1:1997</li> <li>Acoustics – Description and Measurement of Environmental Noise</li> </ul>  |
| <b>Responsible Person</b>   | <ul style="list-style-type: none"> <li>Shoringco Pty Ltd's appointed Site Manager Mr Radwan El-Helou</li> </ul>  |
| <b>Reporting</b>            | <ul style="list-style-type: none"> <li>The Site Manager will be responsible for day to day management, and for reporting non-conforming noise activities to the Pathways Property Group Project Manager.</li> <li>The Site Manager shall be responsible for reporting any incident which causes or threatens to cause material environmental harm or breaches to the Pathways Property Group Project Manager as soon as possible.</li> </ul>   |
| <b>Corrective Actions</b>   | <ul style="list-style-type: none"> <li>In the event of a complaint or failure to comply with the relevant guidelines, the following corrective / preventative actions shall be taken by the Pathways Property Group's Construction Project Manager. An investigation shall be undertaken to determine the cause of the problem or non-conformance; <ul style="list-style-type: none"> <li>Measure sound power and pressure levels emitted from equipment identified as the likely source of the problem and review possible mitigation techniques;</li> <li>Modify work practices as necessary to reduce the duration or level of noise.</li> </ul> </li> </ul>  |

## 8 REMOVAL OF UPSS

### 8.1 INTRODUCTION

Leaking underground petroleum storage systems (UPSS) have been identified in NSW as a significant source of soil and groundwater contamination.

At many former UPSS sites, where abandonment has not been carried out properly, it has often been difficult to locate any system components remaining onsite or determine the exact location of contamination that may have resulted. This lack of information on UPSS can create occupational health and safety (OH&S) hazards, complicate excavation or demolition of a site, result in further contamination of soil and groundwater, and greatly increase the cost of any necessary remediation.

A number of laws and policies govern the removal of these systems. These include:

- ❑ The Occupational Health and Safety Regulation 2001;
- ❑ Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008 (the 'UPSS Regulation'); and
- ❑ State Environmental Planning Policy No. 55.

Industry best practice described in a number of Australian Standards must also be followed when decommissioning UPSS.

The NSW Government provides guidelines for the removal of underground petroleum storage infrastructure in the document *UPSS Technical Note: Decommissioning, Abandonment and Removal of UPSS*.

Guidelines from this technical note have been provided below for guidance and reference.

### 8.2 REMOVAL PROCESS

Removal of the tank is the preferred option for dealing with disused or unwanted UPSS as it allows for a more thorough investigation and assessment of any contamination remaining at the site.

Tank removal and remediation of any residual contamination decreases environmental and OH&S risks at UPSS sites, which reduces the liability of the person responsible for the site and/or its owner while increasing potential future land-use options.

### 8.3 LEGISLATION & REGULATIONS

The person responsible for management and control of a UPSS must ensure compliance with the requirements of the following legislation and policies as well as using industry best practice wherever possible:

- ❑ Clause 174ZF of the Occupational Health and Safety Regulation 2001: Cleaning or decommissioning plant, equipment and containers
- ❑ Code of Practice: Storage and handling of dangerous goods (NSW WorkCover Authority 2005)
- ❑ Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008
- ❑ AS1940–2004: Storage and handling of flammable and combustible liquids (AS 2004)
- ❑ AS4976–2008: Removal and disposal of underground petroleum storage tanks (AS 2008).

All removal works must be carried out by a “*duly qualified person*” as defined in the UPSS Regulation.

Assistance in meeting the requirements and other advice is available from:

- ❑ NSW EPA Environment Line: 131 555 Website: [www.environment.nsw.gov.au/clm/upss.htm](http://www.environment.nsw.gov.au/clm/upss.htm); and
- ❑ SafeWork NSW Phone Assistance Service: 131 050 Website: [www.safework.nsw.gov.au](http://www.safework.nsw.gov.au)

## 8.4 SPECIFIC REQUIREMENTS TO BE MET

### 9.4.1 Occupational Health and Safety Requirements

Clause 174ZF of the Occupational Health and Safety Regulation 2001 describes the requirements for cleaning or decommissioning plant, equipment and containers as follows:

*“an underground tank must be made free from dangerous goods or otherwise made safe if it has not had dangerous goods placed in or taken from it for a continuous period of twelve months”.*

Code of Practice: Storage and handling of dangerous goods (NSW WorkCover Authority 2005) states that where:

*“two years have elapsed since any dangerous goods were last put in or taken from a tank, the person responsible for the site must remove any remaining dangerous goods, and abandon the tank in compliance with the following industry best practices:*

- ❑ *AS1940–2004: Storage and handling of flammable and combustible liquids*
- ❑ *AS4976–2008: Removal and disposal of underground petroleum storage tanks.”*

The Code of Practice also requires the person responsible to notify SafeWork NSW within seven days of the tank removal. The notification must include:

- ❑ information on tank size, location and method of abandonment
- ❑ an as-built site plan that clearly identifies the location of the abandoned tank in relation to other tanks and buildings onsite and the site boundaries
- ❑ a copy of a letter from a duly qualified contractor confirming the removal.

The Code of Practice requires that underground tanks removed from a site must be transported to a disposal area.

Metal recycling companies that accept removed steel tanks require, as a minimum, a tank to be emptied, cleaned, washed, degassed and ripped open prior to delivery to any of their facilities.

When removing tanks, the Code of Practice requires suitable work procedures to be adopted for any work on existing or abandoned underground tanks or associated piping as such activities are potentially dangerous and can cause serious health risks.

The following work procedures, outlined in NSW WorkCover Authority 2009 (now SafeWork NSW), must be followed:

- ❑ Work must be carried out by a competent person <sup>1</sup> with the “*appropriate hot work permit*” <sup>2</sup> and comply with AS1940–2004, AS4976–2008 and AS1674.1–1997: Safety in welding and allied processes – Fire precautions (AS 1997).
- ❑ Tanks should be emptied of all dangerous goods and made gas-free.



- ❑ All associated piping should be disconnected and made safe so that no flammable or combustible liquid remain. Filling pipes with water or concrete slurry is no guarantee of safety, as they may still contain flammable liquid. Cutting pipes also carries higher safety risks.
- ❑ Before a tank is removed, it should be checked to ensure that it can withstand lifting and transport.
- ❑ SafeWork NSW must be notified in order to cancel the location of the tanks on their database.
- ❑ These procedures are for the permanent abandonment (decommissioning) of tanks, as they render them no longer usable and trigger requirements to be met under the UPSS Regulation (see below).

Notes: 1. Clause 318 of the Occupational Health and Safety Regulation 2001 defines a 'competent person' as someone who has acquired, through training, qualifications or experience, or a combination of the three, the knowledge and skill to carry out that task. It is suggested that the work should be undertaken by a person with a demolition licence and chemical endorsement.

2. 'Appropriate hot work permit' is a written document issued by the controller/owner or employer responsible for a workplace which stipulates the conditions under which work within a specified area may be carried out. The permit can only be issued after all precautions listed in AS1674.1-1997 have been addressed. If the work involves the actual tank that has contained flammable goods or 'hot work' near the tank or plant, the tank should be gas-free. The work permit should clearly identify the limit of the work area and prohibit entry into the hazardous area.

#### **9.4.2 UPSS Regulation Requirements**

The UPSS Regulation requires preparation of a site validation report where a tank has been removed from a site. The validation report must provide independent verification that goals associated with site works have been met and the site is suitable for its ongoing or future uses.

Reports should be prepared by a suitably qualified and experienced person, such as a contaminated land consultant. Advice on selecting consultants is available at:

[www.environment.nsw.gov.au/clm/selectaclmcons.htm](http://www.environment.nsw.gov.au/clm/selectaclmcons.htm).

The UPSS Regulation requires the validation report for a site to be submitted to the relevant local authority within 60 days of completion of the validation or remediation works. The report is used by the council to support future planning decisions about the land uses which are suitable for the site.

UPSS Technical Note: Site validation reporting (DECCW 2010) provides more information and guidance on meeting the requirements of the UPSS Regulation and is available at [www.environment.nsw.gov.au/clm/upssguidelines.htm](http://www.environment.nsw.gov.au/clm/upssguidelines.htm). In particular, it notes that validation of the tank pit alone does not necessarily meet the requirements of the UPSS Regulation.

### **9.5 PLANNING REQUIREMENTS**

Decommissioning must address all areas of the site consistent with the requirements of the UPSS Regulation and State Environmental Planning Policy No. 55: Remediation of land (SEPP 55). DUAP (1998a) outlines planning guidelines in relation to SEPP 55. Proponents should check with the local council to determine whether development consent is required for the remediation work (either category 1 or category 2 remediation). The planning authority must be satisfied that under ongoing or new land use, human health and the environment will not be adversely affected by any remaining contamination. In this case Pathways Property Group is carrying out a category 2, voluntary, tank removal process, subject strictly to the procedures outlined in this CEMP, and the associated RAP and WH&SP, as detailed in Section 3 of this document.

SEPP 55 requires the local authority to be notified 30 days prior to the commencement of works and within 30 days of their completion. Under the UPSS Regulation, a validation report must be provided to the council or other relevant authority within 60 days of completion of the validation or remediation works.

Section 3.6 of Planning and development process for sites with underground petroleum storage systems (DECCW 2009b) considers planning issues from a local council perspective.

## 9.6 INDUSTRY BEST PRACTICE

As discussed previously, Code of Practice: Storage and handling of dangerous goods (NSW WorkCover Authority 2005) requires the following Australian Standards to be considered when decommissioning, abandoning or removing tanks:

- ❑ AS1940–2004: Storage and handling of flammable and combustible liquids (AS 2004)
- ❑ AS4976–2008: Removal and disposal of underground petroleum storage tank (AS 2008).

These standards identify industry best practice procedures and OH&S considerations when a tank is decommissioned, abandoned or removed.

In general, removal of tanks when they are no longer in use is preferred industry best practice.

An industry-recognised specialist and licensed contractor with knowledge and experience in the field of tank removal (a “*duly qualified person*” under the UPSS Regulation) should be engaged to remove UPSS. They should be able to provide a comprehensive range of works and appropriately document the removal of tanks and supporting infrastructure.

Tank removal should include the recording of any evidence that a leak has occurred, whether contamination is present within the excavation and all containment and mitigation measures undertaken at the time of the removal. A photographic and/or video log of the event is strongly recommended, as well as field screening of materials to assist in sample assessment during and immediately after tank removal.

Some of the more common observations during removal include:

- ❑ evidence of tank or pipe failure via holes or corrosion;
- ❑ evidence of odours, staining or sheen within the excavation pit or the collection of water in the pit;
- ❑ the use of incompatible UPSS materials for the product being stored;
- ❑ incompatible geotechnical conditions, such as reactive or collapsing soils;
- ❑ evidence of human error, such as inadequate system management, poor installation, damage, tank filling activities, loose fittings and spills; and
- ❑ bent, damaged or unsuitable tank dipping or gauging equipment, such as perforations of the lining of the tank by dip sticks.

The procedure to be followed should be planned and documented before tank removal gets under way.

This should include contingencies to deal with any contaminated soil or groundwater which may be encountered and any other related site-specific issues, such as shallow groundwater in the area.

Consideration should also be given to the requirements of the relevant dangerous goods legislation when transporting disused tanks.

## 9.7 RAP GUIDELINES

This Section of the CEMP should be read and applied in conjunction with the relevant Section of the RAP for the project, including in particular Sections 4.1, 4.2 and 5.3

## 10 WASTE MANAGEMENT & CONTROL

The Waste Management & Control Plan for the project is set out below.

| <b>Waste Management &amp; Control Plan</b> |   |
|--|---|
| <b>Objective</b>                           | <ul style="list-style-type: none"> <li>❑ To prevent or minimise any adverse environmental impacts from wastes during the project; to minimise their generation; to maximise their reuse and recycling, and to ensure safe and lawful disposal of all waste.</li> </ul>  |
| <b>Statutory Requirements</b>              | <ul style="list-style-type: none"> <li>❑ Protection of the Environment Operations Act 1997</li> <li>❑ Protection of the Environment Operations (Waste) Regulations 2005.</li> <li>❑ Waste Avoidance and Resource Recovery Act 2001 &amp; associated Regulations.</li> <li>❑ Waste Classification Guidelines Part 1: Classifying Waste (NSW EPA; November 2014)</li> </ul>   |
| <b>Performance Criteria</b>                | <ul style="list-style-type: none"> <li>❑ All waste material to be appropriately classified for reuse, recycling or offsite disposal</li> <li>❑ Waste to be disposed of lawfully</li> <li>❑ No complaints received in relation to waste management practices</li> </ul>  |
| <b>Mitigation Measures</b>                 | <ul style="list-style-type: none"> <li>❑ Any contaminated waste (as defined by Waste Classification Guidelines) that may be encountered on site will be stored and managed in a manner that minimises the impacts of the waste on the environment, including appropriate segregation for storage and separate disposal by a waste transporter licensed by the NSW EPA.</li> <li>❑ Any waste will be stored neatly in appropriate bins or stockpiles, in such a manner that stormwater run-off does not come into contact with the waste</li> <li>❑ Any contaminated or suspected contaminated soil that may be encountered during the project will be managed by the Shoringco Site Manager in conjunction with the Project Environmental Consultant, and relevant contaminated soil management guidelines and regulations.</li> <li>❑ Shoringco Pty Ltd employees and sub-contractors working on the site will be informed of their responsibility to reduce waste where possible.</li> <li>❑ All personnel will receive instruction on what waste materials can be recycled and where the appropriate bins are located during site and project induction.</li> <li>❑ Secure lids would be fitted to bins that store food waste to prevent scavenging by birds and animals.</li> </ul> |
| <b>Monitoring</b>                          | <ul style="list-style-type: none"> <li>❑ The effectiveness of waste management and control procedures will be supervised on an ongoing basis by the Site Manager.</li> <li>❑ In the event that suspected contaminated soil, or other waste issues are encountered, soil sampling and waste classifications as required and as appropriate will be carried out in conjunction with the Shoringco Pty Ltd Site Manager and the Project Environmental Consultant.</li> <li>❑ If required, the Site Manager may seek additional advice from the project Environmental Consultant to establish if further controls are necessary to ensure effective waste management and control.</li> </ul>  |
| <b>Responsible Person</b>                  | <ul style="list-style-type: none"> <li>❑ Shoringco Pty Ltd's appointed Site Manager Mr Radwan El-Helou.</li> </ul>  |
| <b>Reporting</b>                           | <ul style="list-style-type: none"> <li>❑ The Site Manager will be responsible for day to day management, and for reporting non-conforming waste management and control incidents to the Pathways Property Group Project Manager</li> <li>❑ The Site Manager shall be responsible for reporting any incident which causes or threatens to cause material environmental harm or breaches to the Pathways Property Group Project Manager as soon as possible.</li> </ul>   |
| <b>Corrective Actions</b>                  | <ul style="list-style-type: none"> <li>❑ Should an incident in relation to waste management and control occur, one or more of the following corrective actions shall be implemented:               <ol style="list-style-type: none"> <li>1. An investigation will be undertaken by the Site Manager to determine the cause of the problem;</li> <li>2. The Waste Generation &amp; Management Plan or and associated work practices and procedures shall be modified as necessary to ensure appropriate waste management and control outcomes;</li> <li>3. Results of any investigation will be reported to the Pathways Property Group Project Manager</li> </ol> </li> </ul>  |

## 11 TRAFFIC

### 11.1 TRAFFIC MANAGEMENT & CONTROL PLAN

| Traffic Management & Control Plan |   |
|-----------------------------------|---|
| <b>Objective</b>                  | <ul style="list-style-type: none"> <li><input type="checkbox"/> To ensure maximum safety of on-site personnel and pedestrians and drivers.</li> <li><input type="checkbox"/> To ensure that construction activities do not adversely impact or compromise safe traffic flow within the site.</li> <li><input type="checkbox"/> To minimise environmental nuisance and impact as a result of construction traffic.</li> <li><input type="checkbox"/> To ensure construction traffic does not interrupt existing traffic flows on local road network.</li> </ul>  |
| <b>Statutory Requirements</b>     | <ul style="list-style-type: none"> <li><input type="checkbox"/> Road Transport (Safety and Traffic Management) Act 1999.</li> </ul>   |
| <b>Performance Criteria</b>       | <ul style="list-style-type: none"> <li><input type="checkbox"/> No safety incidents.</li> <li><input type="checkbox"/> Adherence to any relevant permits and/or license conditions.</li> <li><input type="checkbox"/> No noise, dust complaints or complaints in relation to construction traffic from neighbouring property owners or residents in the local area.</li> </ul>  |
| <b>Mitigation Measures</b>        | <ul style="list-style-type: none"> <li><input type="checkbox"/> All transport vehicles to have proper noise attenuation and to be maintained in good order.</li> <li><input type="checkbox"/> Construction traffic would comply with construction noise limits and construction times to minimise noise impact on residents.</li> <li><input type="checkbox"/> Queuing will be forbidden in local streets. Truck movements will be staggered to prevent queuing occurring.</li> <li><input type="checkbox"/> Vehicle and machinery movements during works will be restricted to designated areas within the site</li> <li><input type="checkbox"/> Any oversize truck movements will only occur during NSW RMS approved hours (10 am to 3 pm, and 7 pm to 7 am) and will not operate during peak traffic curfews</li> <li><input type="checkbox"/> All vehicles will be restricted to the on-site speed limit of 10 km/hr.</li> <li><input type="checkbox"/> Adequate off-road parking will be provided for construction vehicles and mobile plant</li> <li><input type="checkbox"/> Adequate room will be provided for vehicles to manoeuvre on the site.</li> <li><input type="checkbox"/> All trucks on site will have fitted, and will maintain, reversing lights and reversing alarms for on-site safety.</li> <li><input type="checkbox"/> In accordance with the Air Quality &amp; Dust Management Plan, vehicles transporting material to and from the construction site will be covered immediately after loading (prior to traversing public roads) to prevent wind-blown dust emissions and spillages.</li> <li><input type="checkbox"/> In the event of a spillage of materials from construction vehicles, spilled material will be removed as soon as practicable within the working day of the spillage</li> </ul> |
| <b>Monitoring</b>                 | <ul style="list-style-type: none"> <li><input type="checkbox"/> Visual monitoring of all traffic movements on site will be carried out by the Site Manager to ensure the safe movement of traffic and the protection of persons and property through and around the site.</li> </ul>  |
| <b>Responsible Person</b>         | <ul style="list-style-type: none"> <li><input type="checkbox"/> Shoringco Pty Ltd's appointed Site Manager Mr Radwan El-Helou.</li> </ul>   |
| <b>Reporting</b>                  | <ul style="list-style-type: none"> <li><input type="checkbox"/> The Site Manager will be responsible for day to day management, and for reporting non-conforming traffic incidents to the Pathways Property Group Project Manager.</li> <li><input type="checkbox"/> Any complaints from the general public will be investigated and reported, and an appropriate response provided.</li> <li><input type="checkbox"/> The Site Manager shall be responsible for reporting any serious complaint or incident which causes or threatens to cause material environmental harm or breaches to the Pathways Property Group Project Manager as soon as possible.</li> </ul>  |
| <b>Corrective Actions</b>         | <ul style="list-style-type: none"> <li><input type="checkbox"/> Should an incident in relation to traffic management and control occur, one or more of the following corrective actions shall be implemented by Shoringco Pty Ltd: <ol style="list-style-type: none"> <li>1. In the event of a site safety incident, the Site Manager or relevant sub-contractor shall: <ul style="list-style-type: none"> <li>• Stop the vehicle/personnel involved in the incident immediately (or as appropriate), operate warning lights and warn other drivers to slow down, and</li> <li>• Clear the spill in the event of a spillage – engaging appropriate safety standards as relevant to the event.</li> </ul> </li> <li>2. In the event of a complaint or failure to comply with relevant guidelines, the Site Manager will: <ul style="list-style-type: none"> <li>• Investigate the complaint promptly and initiate appropriate action to reduce impact as per guidelines in this Plan;</li> <li>• Undertake an investigation to determine the cause of the problem;</li> <li>• Undertake monitoring if required;</li> <li>• Modify transportation practices as necessary to reduce the duration or level of impact; and</li> <li>• Report the results of the investigation to the Pathways Property Group Project Manager</li> </ul> </li> </ol> </li> </ul>  |



## 11.2 TRAFFIC ENTRY & EXIT POINTS

Traffic entry and exit points are identified in Figure 11.1 below.

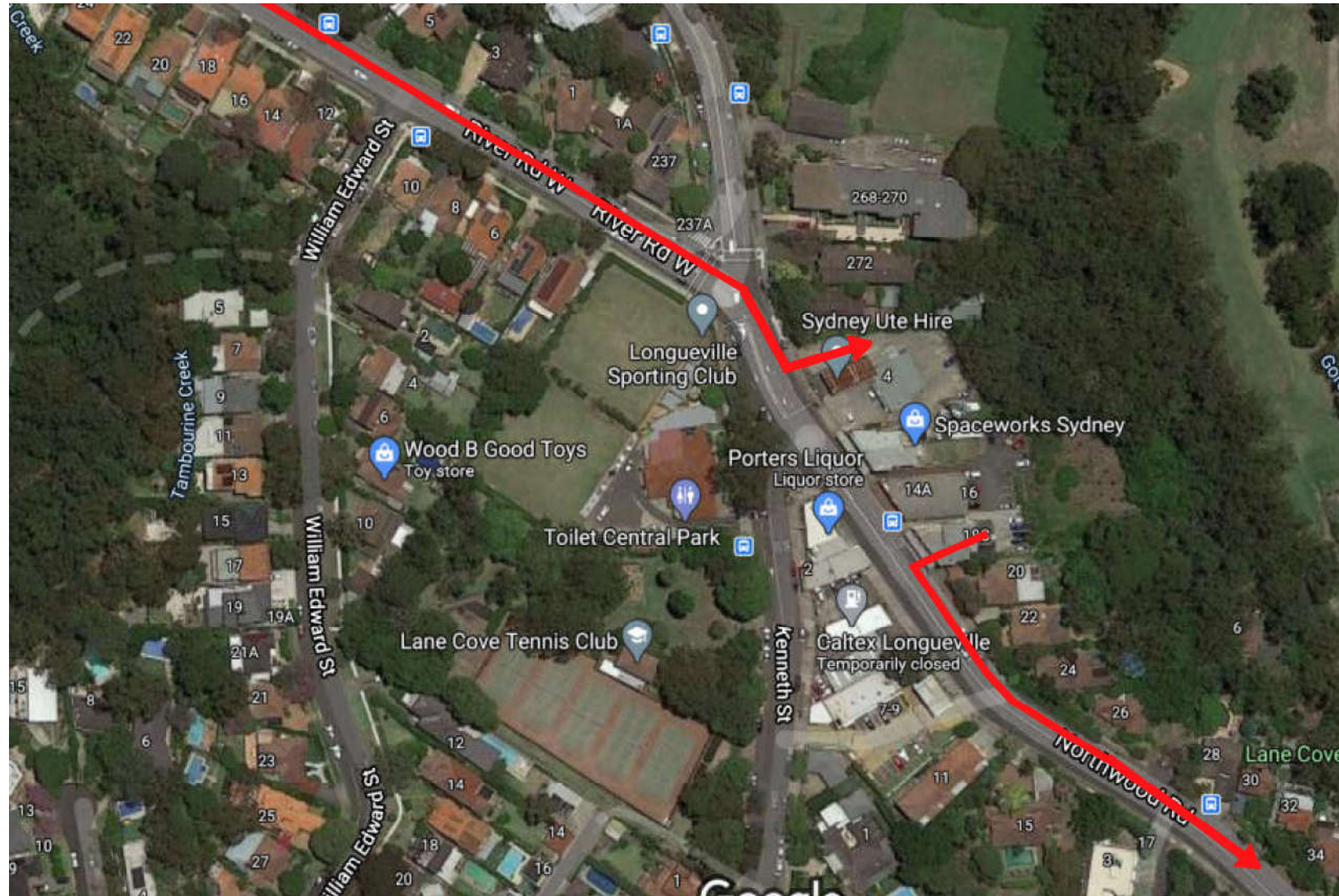
**Figure 11.1 – Traffic Entry & Exit Points**



## 11.3 APPROACH & EXIT TRAFFIC CONTROLS

Traffic control procedures for trucks approaching and leaving the site are shown in Figure 11.2, on the following page. Demolition and Excavation traffic shall use the natural traffic flow restrictions created via the existing Traffic Control Signals at the intersections of River, Longueville and Northwood Roads.





Vehicles will be instructed to enter the North West of the site from the North via River Road and exit at the South East via Northwood Road towards the South West

## **12 UNEXPECTED FINDS & EVENTS**

It is possible that unexpected events, and/or unexpected finds, may occur during the course of the remediation and construction project at 4-12 Northwood Road & 274-274A Longueville Road, Lane Cove

Any such events or finds should be reported immediately to Shoringco Pty Ltd's Site Manager Mr Radwan El-Helou (or his nominated delegate), who will be responsible to take immediate action to ensure that any such unexpected finds or events are dealt with in an urgent and appropriate manner and in accordance with Section 6.4 of the Remedial Action Plan (RAP) for the project, to ensure that no environmental harm or exposure applies at the site, or to nearby properties, activities and individuals.

The Pathways Property Group Project Manager may take further advice from the Project Environmental Consultant or others as required.

## **13 FLORA, FAUNA & ECOLOGICAL MANAGEMENT**

No specific flora, fauna and ecological management issues have been identified in relation to the 4-12 Northwood Road & 274-274A Longueville Road, Lane Cove site. However, if any such issues are identified, or are suspected to apply, during the course of the project, Shoringco Pty Ltd's Site Manager Mr Radwan El-Helou (or his nominated delegate), will report any such issues to the Pathways Property Group Project Manager, who if necessary will seek appropriate professional advice in relation to the issue or suspected issue, and in conjunction the Site Manager and the Project Environment Consultant will take appropriate action to ensure compliance with all relevant environmental guidelines and protocols.

## **14 LANDSCAPING**

Landscaping of the site, following the remediation and construction phase of the project, will be undertaken in general accordance with the plans and drawings presented as part of the approved Development Application submission for the project. Any landscaping will involve the use of appropriate species, consistent with Lane Cove Council guidelines and protocols, and any relevant Consent Conditions.

## **15 REHABILITATION**

The 4-12 Northwood Road & 274-274A Longueville Road, Lane Cove site is predominantly hard stand of concrete and bitumen, and currently only one ground floor shop premises is occupied. As such, no specific rehabilitation actions have been identified.

However, the appropriate maintenance and development of the site, including its rehabilitation to the extent relevant, has been taken into account throughout the Construction EMP presented in this document.

Part of the intention and objectives of this Construction EMP has been to ensure that the site, following development, will reflect landscape and built elements that are consistent with and appropriate to Lane Cove Council's concept and vision for the area in question.

## 16 POTENTIAL HERITAGE and ABORIGINAL ISSUES

No specific Heritage or Aboriginal items or issues are understood to apply in relation to the 4-12 Northwood Road & 274-274A Longueville Road, Lane Cove site.

## 17 CONTACT DETAILS

Contact details for Shoringco Pty Ltd, the Pathways Property Group Project Manager, and the currently appointed Environmental Consultant for the 4-12 Northwood Road & 274-274A Longueville Road, Lane Cove project are provided below.

This Plan will be amended as required to show changes and updates to these contact details.

### SHORINGCO PTY LTD:

**Shoringco Pty  
Ltd 42 Victoria  
Road  
Smithfield NSW 2164**

**Contact: Radwan El-Helou  
General Manager  
Phone: (02) 9729 2771  
Mobile: 0411 789 753**

### PATHWAYS PROPERTY GROUP:

**Pathways Property Group  
40 Chandos Street  
St Leonards  
NSW 2065**

**Contact: Andrew Tetlow  
Project Manager  
Phone: (02) 8437 1700  
Mobile: 0428 916 248**

### ENVIRONMENTAL CONSULTANT:

**Reditus Consulting Pty Ltd  
1/11-15 Gray Street  
Sutherland  
NSW 2232**

**Contact: David Jackson  
Director  
Principal Hydrogeologist  
Phone: (02) 9521 6567  
Mobile: 0413 177 501**

### CIVIL AND STORMWATER CONSULTANT

**ACOR Consultants Pty Ltd  
Suite 2, Level 1  
33 Herbert Street  
St Leonards  
NSW 2065**

**Contact: Timothy Fitzhardinge  
Senior Civil Engineer  
Phone: (02) 9438 5098  
Mobile: 0417 770 487**

## 18 AUTHORISATION & LIMITATIONS

The Construction Environmental Management Plan presented in this document has been prepared for Pathways Property Group by CareStruct Pty Ltd, based on relevant guidelines and protocols a described herein.

Subject to any limitations identified, it is the view of both Pathways Property Group and CareStruct Pty Ltd that the Plan described in this document provides an accurate and reliable assessment of the various environmental considerations applicable at and in the immediate vicinity of the 4-12 Northwood Road & 274-274A Longueville Road, Lane Cove site, and a sound and professional basis upon which to effectively manage the various environmental issues likely to be associated with the remediation and construction phases of the Mixed Use RACF development intended for that site, and described in this document.

This Plan is to be used only for the specific project described herein, and neither the Plan nor any of its contents are authorised for any other use or purpose.

Any questions or requests for further information regarding this Plan should be directed to Pathways Property Group

I acknowledge all the information in this report to be true and will be adhered to through the entire course of this project. All policies and procedures presented have been developed in conjunction with the Remediation Action Plan (V0) as produced by EI Australia. Both the WHS Plan and Construction EMP have been developed accordingly with current Australian standards and policies.

**Andrew Tetlow**  
Project Manager  
Carestruct Pty Ltd