# APPENDIX G

## Construction and Demolition Waste Management Plan

Land & Groundwater Consulting Pty Ltd
ABN 65 162 117 928

# Frasers & Altis
# Construction Demolition Waste Management Plan

Warehouse, Logistics and Industrial Facilities Hub (SSD 9522)

657–769 Mamre Road
Kemps Creek, NSW

2 March 2021

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# 1. Introduction

## 1.1 Background

Land & Groundwater Consulting Pty Ltd (LG) has been engaged by Frasers Industrial Constructions Pty Ltd (Frasers) and Altis Property Partners Pty Ltd (Altis) to prepare a Construction Demolition Waste Management Plan (CDWMP) for the proposed construction of a Warehouse/Logistics Hub Facility located at 657–769 Mamre Road, Kemps Creek, NSW (hereafter referred as 'the site').

The site covers in its entirety an approximate development area of 1,171,666 $m^2$. The site location plan is shown in **Figure 1**.

The CDWMP is required to support approval with the NSW Department of Planning, Industry and Environment (DPIE) for State Significant Development (SSD) 9522, which will comprise the construction of a warehouse, logistics and industrial facilities hub including 21-lot Torrens title subdivision over two stages, upgrade works in Mamre Road, 744 parking spaces and construction of 8 warehouses with total floor space of approximately 162,355 $m^2$.

## 1.2 Objectives

As specified in the Secretary's Environmental Assessment Requirements (SEARs) for the proposed development, the objectives of the WMP are:

- To document the procedures that will be undertaken to manage the wastes generated as part of the development works;
- To provide details of the quantities and classification of waste and wastewater (if any) to be generated onsite;
- To provide details on waste storage, handling and disposal (including the location of waste storage and management facilities); and
- To provide details of the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021*.

# 2. Project Summary

## 2.1 Project Overview

### 2.2.1 Development Overview

The Kemps Creek Warehouse, Logistics and Industrial Facilities Hub (the Yards) is a regional warehouse and distribution complex located at Kemps Creek within the Penrith local government area (LGA) within the Western Sydney Employment Area (WSEA) (refer **Figure 1**).

Frasers Property Australia Pty Ltd (Frasers) and Altis Bulky Retail Pty Ltd (Altis) jointly identified as 'the Proponent' obtained Development Consent SSD (State Significant Development) 9522 on 21 December 2020 from the Department of Planning, Industry and Environment (DPIE) for the 'Kemps Creek Warehouse, Logistics and Industrial Facilities Hub' comprising the construction of eight warehouse buildings over eight lots as the first stage of development, with estate works across the broader site comprising bulk earthworks to create building pads for future development, stormwater infrastructure and an internal road network including a north south distributor road connecting to the adjacent property, intersection upgrades and the widening of Mamre Road.

Specifically, SSD 9522 permits the following development:

- Demolition of existing structures, site-wide earthworks, landscaping, stormwater and other infrastructure and an internal road network;
- Construction and operation of 8 warehouses comprising 162,355 $m^2$ of floor space;
- Intersection upgrade works in Mamre Road;
- 744 parking spaces; and
- 21-lot Torrens title subdivision over two stages, being Stage 1 residual lot subdivision into 5 lots and Stage 2 residual and development lot subdivision into 17 lots.

### 2.2.2 Construction Staging and Activities

The Stage 1 development of the Yards comprises the subdivision of five lots within the site, along with demolition and site wide earthworks, landscaping, utilities, stormwater and the internal road networks. Stage 1 also includes the construction and operation of eight warehouses inclusive of 744 parking spaces and intersection upgrade works on Mamre Road.

The Stage 2 development comprises the subdivision of the remaining portion of the site into a further 17 lots.

Development on these lots is then anticipated to occur over a period of time to meet market demand and would be subject to future development applications.

### 2.2.3 Location

The Yards is located at 657-769 Mamre Road, Kemps Creek and is legally described as Lot 34 DP 1118173, Lot X DP 421633, Lot 1 DP 1018318, Lot Y DP 421633 & Lot 22 DP 258414. It is located at the western extent of the WSEA within the Penrith LGA.

The site is bound by the following land uses:

- North – the Water NSW Pipeline and SSD 7173 approved 'First Estate' industrial development, with the Erskine Business Park beyond
- South – rural residential properties
- East – Mamre Road with rural residential properties, schools and age care beyond
- West – South Creek with rural residential properties beyond.

The site has historically been used for low intensity agriculture and is primarily covered with pasture grass and limited stands of vegetation. The site has several dams in the central area and has a gradual fall from east to west towards South Creek.

## 2.2 Conditions of Consent

Development Consent for the project (SSD 9522) under Section 4.38 of the Environmental Planning and Assessment Act 1979 (EP&A Act) was provided by NSW DPIE on 21 December 2020.

This CDWMP addresses the following State Significant Development Application (SSDA) Consent Conditions relevant to waste management during demolition and construction at the site:

**Table 1 – Summary of SSDA Consent Conditions**

| SSD 9522 Consent Condition | CEMP Section |
|---|---|
| Condition C1. Management Plans Requirements. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: | |
| (a) detailed baseline data; | Section 4. |
| (b) details of: | |
| (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); | Sections 2.2 and 3. |
| (ii) any relevant limits or performance measures and criteria; and | Sections 3.5, 5 and 6.1. |
| (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; | Sections 3.5 and 5.1. |
| (c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; | Sections 5.1, 5.2, 5.3 and 5.4. |
| (d) a program to monitor and report on the: | Section 5.6. |
| (i) impacts and environmental performance of | |

| SSD 9522 Consent Condition | CEMP Section |
|---|---|
| the development; and<br><br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;<br><br>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;<br><br>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;<br><br>(g) a protocol for managing and reporting any:<br><br>(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);<br><br>(ii) complaint;<br><br>(iii) failure to comply with statutory requirements; and<br><br>(h) a protocol for periodic review of the plan.<br><br>Note: the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans | Section 7.<br><br>Section 5.1.<br><br>Refer to the project CEMP and Section 5.6 of this CDWMP.<br><br>As above.<br><br>As above. |
| Condition C3 (i). Construction and Demolition Waste Management Plan. | Refer to this CDWMP |
| Condition B76. Construction and Demolition Waste Management Plan.<br><br>Prior to the commencement of construction, the Applicant must prepare a Construction and | Refer to this CDWMP |

| SSD 9522 Consent Condition | CEMP Section |
|---|---|
| Demolition Waste Management Plan (CDWMP) for the development to the satisfaction of the Planning Secretary.<br><br>The CDWMP must form part of the CEMP in accordance with condition C2 and must:<br><br>(a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations; and<br><br>(b) be implemented for the duration of construction works. | Sections 4.1, 4.2, 5.3 and 5.5. |
| Condition B79. Waste Storage and Processing<br><br>Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties. | Section 5.4. |

## 2.3 Project Schedule

The wastes to be generated by the development are anticipated to be as follows:

- Demolition waste derived from demolition of existing building structures (refer **Figures 2**); and
- Construction waste derived from construction of facility pads, structures, related amenities and lead-in services including electricity, sewer and potable water (refer **Figures 3**).

# 3. Waste Regulatory Framework

## 3.1 Protection of the Environment Operations Act 1997

All material to be removed from the site (including associated activities such as classification) will be undertaken in strict accordance with the requirements of the POEO Act 1997. Such requirements include:

- Ensuring waste is classified appropriately and in accordance with relevant guidelines;
- Waste materials are disposed of to appropriately licensed facilities; and
- Other materials are removed to facilities lawfully able to accept such materials.

## 3.2 Waste Avoidance and Resource Recovery Act 2001

The Waste Avoidance and Resource Recovery (WARR) Act 2001 establishes the waste hierarchy to ensure that resource management options are considered against the following priorities:

1. Avoidance – actions to reduce the amount of waste generated and undertaking activities;
2. Resource Recovery – which includes reuse, reprocessing, recycling and energy recovery, consistent with the most efficient use of the recovered resources; and
3. Disposal – an "end-of-pipe" option that must be carefully undertaken to minimise any negative environmental outcomes.

The objectives of the WARR Act 2001 include:

- To encourage the most efficient use of resources;
- To minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste;
- To ensure that industry shares with the community the responsibility for reducing; and
- To ensure the efficient funding of waste and resource management planning, programs and service delivery.

## 3.3 Protection of the Environment Operations (Waste) Regulation 2014

The Regulation encourages the recovery of resources from waste by issuing both general and specific resource recovery exemptions. Where no general exemption is available for the intended use, a specific exemption may be issued after an application is made to the NSW EPA. Specific exemptions are not publicly available.

The Regulation makes requirements relating to non-licensed waste activities and waste transporting. The proposed works on the site will not require to be licensed. Section 48 of the Regulation requires that wastes are stored in an environmentally safe manner. It also stipulates that vehicles used to transport waste must be covered when loaded.

The Regulation exempts certain waste streams from the full waste tracking and record keeping requirements. Waste tracking is required only for industrial and hazardous wastes. However, these are not anticipated to be present on the site based on the use of the immobilisation approval. Provision is provided in the Regulation for the NSW EPA to approve the immobilisation of contaminants in waste.

## 3.4 Better Practice Guidelines 2012

The NSW EPA (2012) *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012* promotes efficient waste minimisation and resource recovery for commercial and industrial facilities and is used as a benchmark document when assessing waste production rates within Australia.

Better practice waste management systems in commercial buildings may incorporate any, or all, of the following:

- Garbage services to manage residual wastes (those not collected by a dedicated recycling or organics collection service).
- Recycling services to manage dry recyclable materials. These materials may vary from building to building, but generally cover recyclable materials generated in a typical business, including office paper, cardboard, plastic film, metals and recyclable containers.
- Organics services to manage garden and food organics, which may include a bin-

based collection system or onsite composting.

- Bulky waste services to manage bulky items, such as furniture and fit-out materials.

- Special waste services for items such as toner cartridges, batteries, fluorescent lights, mobile phones and chemicals.

## 3.5 Waste Avoidance and Resource Recovery Strategy 2014 - 2021

The NSW Government's priority areas and actions for waste avoidance and resource recovery is outlined in the Waste Strategy 2014-2021.

The six identified "key result areas" in the Strategy are:

- Key Result Area 1: Avoid and reduce waste generation (for assessment of proposed measures refer Section 5.1 of this report).

- Key Result Area 2: Increase recycling (for assessment of proposed measures refer Section 5.2 of this report).

- Key Result Area 3: Divert more waste from landfill (for assessment of proposed measures refer Section 5.2 of this report).

- Key Result Area 4: Manage problem wastes better (for assessment of proposed measures refer Section 5.1 of this report).

- Key Result Area 5: Reduce litter (for assessment of proposed measures refer Section 5.1 of this report).

- Key Result Area 6: Reduce illegal dumping (for assessment of proposed measures refer Section 5.2 of this report).

The Strategy also includes the following recycling targets (as relevant to the proposed works at the site)[1]:

[1] *NSW Waste Avoidance and Resource Recovery Strategy 2014–21*, NSW EPA, December 2014.

- Increased recycling of commercial and industrial waste from 57% (in 2010-11) to 70% by 2021-21; and
- Increased recycling of construction and demolition waste from 75% (in 2010-11) to 80% by 2021-21.

## 3.6 Waste Classification Guidelines 2014

All wastes generated and proposed to be disposed offsite shall be assessed, classified and managed in accordance with the NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

## 3.7 Penrith Development Control Plan 2014

In accordance with Part C5 (Waste Management) of the Penrith Development Control Plan (DCP) 2014, one of the objectives of the DCP is to assist in reducing Penrith's ecological footprint by encouraging the diversion of waste from landfill

The Penrith DCP has been prepared in accordance with the Waste Avoidance and Resource Recovery Act 2001 and came into effect on 17 April 2015.

# 4. Estimated Waste

## 4.1 Demolition Waste

The estimated demolition waste quantities are summarised in **Table 2**.

**Table 2 – Estimated Demolition Waste**

| Type of Waste Generated | Reuse | Recycling | Disposal | Method of on-site reuse, contractor and recycling outlet and /or waste depot to be used |
|---|---|---|---|---|
| | Estimate Volume ($m^3$) or Weight (t) | Estimate Volume ($m^3$) or Weight (t) | Estimate Volume ($m^3$) or Weight (t) | |
| Excavated materials (topsoils) | 175,000 $m^3$ | 0 $m^3$ | 0 $m^3$ | N/A |
| Timber | 0 $m^3$ | 0 $m^3$ | 150 $m^3$ | Waste Management Centre |
| Concrete | 0 $m^3$ | 2,280 $m^3$ | 0 $m^3$ | Recycling Management Centre |
| Bricks/pavers/ masonry | 0 $m^3$ | 1,000 $m^3$ | 0 $m^3$ | Recycling Management Centre |
| Tiles | 0 $m^3$ | 0 $m^3$ | 10 $m^3$ | Waste Management Centre |
| Metal (fences, sheds) | 0 $m^3$ | 4,262 $m^3$ | 0 $m^3$ | Recycling Management Centre |
| Glass | 0 $m^3$ | 0 $m^3$ | 0 $m^3$ | Waste Management Centre |
| Furniture | 0 $m^3$ | 0 $m^3$ | 10 $m^3$ | Waste Management Centre |
| Fixtures and fittings | 0 $m^3$ | 0 $m^3$ | 10 $m^3$ | Waste Management Centre |
| Floor coverings | 0 $m^3$ | 0 $m^3$ | 10 $m^3$ | Waste Management Centre |
| Packaging (used pallets, pallet wrap) | 0 $m^3$ | 0 $m^3$ | 0 $m^3$ | N/A |
| Garden organics | 0 $m^3$ | 0 $m^3$ | 0 $m^3$ | Waste Management Centre |
| Containers (cans, plastic, glass) | 0 $m^3$ | 0 $m^3$ | 0 $m^3$ | N/A |
| Paper/cardboard | 0 $m^3$ | 0 $m^3$ | 0 $m^3$ | N/A |

| | | | | |
|---|---|---|---|---|
| Residual waste | 0 $m^3$ | 0 $m^3$ | 100 $m^3$ | Waste Management Centre |
| Hazardous/special waste | TBC | TBC | TBC | TBC |
| Other | 0 $m^3$ | 0 $m^3$ | 0 $m^3$ | N/A |
| **Total** | **175,000 $m^3$** | **7,542 $m^3$** | **290 $m^3$** | |

## 4.2 Construction Waste

The estimated monthly construction waste quantities are summarised in **Table 3**.

**Table 3 – Estimated Monthly Construction Waste**

| Type of Waste Generated | Reuse | Recycling | Disposal | Method of on-site reuse, contractor and recycling outlet and /or waste depot to be used |
|---|---|---|---|---|
| | Estimate Volume ($m^3$) or Weight (t) | Estimate Volume ($m^3$) or Weight (t) | Estimate Volume ($m^3$) or Weight (t) | |
| Excavated materials (cut/fill soils) | 64,300 $m^3$ | 0 | 0 | NA (if disposal applies refer S. 3.6 and 7.1) |
| Green waste | 0 | <20 $m^3$ | 0 | Recycling Outlet |
| Bricks/pavers | 0 | <40 $m^3$ (offcuts) | 0 | Recycling Outlet |
| Tiles | 0 | <40 $m^3$ (offcuts) | 0 | Recycling Outlet |
| Concrete | 0 | <100 $m^3$ | 0 | Recycling Outlet |
| Plasterboard | 0 | <20 $m^3$ | 0 | Recycling Outlet |
| Asbestos | 0 | 0 | 0 | NA |
| Metal – specify | 0 | <200 $m^3$ (steel offcuts) | 0 | Recycling Outlet |
| Timber - specify | 0 | <200 $m^3$ | 0 | Recycling Outlet |
| General waste | 0 | 0 | <80 $m^3$ | Waste Management Centre |

| | Reuse | Recycling | Disposal | |
|---|---|---|---|---|
| Plastic | 0 | <100 $m^3$ | 0 | Recycling Outlet |
| Paper/cardboard | 0 | <140 $m^3$ | 0 | Recycling Outlet |
| **Total** | **64,300 $m^3$** | **<860 $m^3$** | **<80 $m^3$** | |

# 5. Demolition and Construction Waste Reduction Plan

## 5.1 Waste Reduction Targets and Performance

Waste reduction performance relates to waste diverted from landfill that should meet the targets for recycling outlined in the NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (the Strategy).

The targets include increasing recycling of construction and demolition waste to 80% by 2021 and increasing recycling of commercial and industrial waste to 70% by 2021.

It is anticipated that the waste reduction measures in the following sections will assist in meeting the Strategy targets. Waste reporting and audits can be used to determine the actual percentage of waste that are being, or have been, recycled during operation.

## 5.2 Waste Reduction Measures

Waste-type-specific reduction measures will be employed during demolition and construction stages, with the following specific procedures:

- Applying practical building designs and construction techniques;
- Appropriate sorting and segregation of demolition and construction wastes to ensure efficient recycling of wastes;
- Selecting construction materials taking into consideration to their long lifespan and potential for reuse;
- Ordering materials to size and ordering pre-cut and prefabricated materials;
- Reuse of formwork (where possible);
- Planned work staging;
- Reducing packaging waste on-site by returning packaging to suppliers where possible, purchasing in bulk, requesting cardboard or metal drums rather than plastics, requesting metal straps rather than shrink wrap and using returnable packaging such as pallets and reels;
- Careful on-site storage and source separation;

- Subcontractors informed of site waste management procedures; and
- Coordination and sequencing of various trades.

## 5.3 Beneficial Reuses

The anticipated beneficial reuses of demolition and construction waste are summarised as follows:

- All solid waste timber, concrete, tiles and rock that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner;
- All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with SafeWork Authority and NSW EPA requirements;
- Portable, self-contained toilet and washroom facilities will be provided at the site and will be regularly emptied and serviced by a suitably qualified contractor;
- Provision for the collection of batteries, fluorescent tubes and other recyclable resources will be provided onsite to enable offsite recycling;
- Drink container recycling should be provided onsite or these items sorted offsite for recycling at an appropriately licensed facility;
- All garbage will be disposed of via a council approved system; and
- Opportunities for materials exportation and reuse with other local construction operations will be investigated.

## 5.4 Waste Segregation and Storage

As outlined in the Penrith DCP, demolition and construction wastes are to be separated at the source and stored separately onsite. The following waste materials should be segregated, sorted and stored onsite in separate skip bins or appropriately managed stockpiles prior to offsite disposal:

- Bricks, concrete and scrap metal
- Metal and steel, in a condition suitable for recycling at metal recycling facilities
- Timber
- Glass

- Hardstand rubble
- Uncontaminated excavation spoil, if present
- Contaminated excavation spoil, if present
- Hazardous waste, if present
- Paper and cardboard
- General co-mingled recycling waste, and
- Non-recyclable general waste.

Waste segregation, sorting and reporting can be conducted by either the principal contractor or outsourced to the waste collection contractor. Irrespective of this, waste segregation, sorting and reporting of waste streams should strictly be completed onsite, prior to offsite disposal and, under no circumstances, at an offsite location.

## 5.5 Waste Storage Areas

Waste storage locations will be accessible and allow sufficient space for storage and servicing requirements. These locations will also be flexible in order to cater for change of use throughout the development demolition and construction stages.

Where space is restricted, dedicated stockpile areas are to be delineated on the site, with regular transfers to dedicated skip bins for sorting. The positions of the designated waste holding areas on site will change according to building works and the progression of the development, but must consider visual amenity, OH&S and accessibility in their selection.

All waste placed in stockpile areas/skips for disposal or recycling shall be adequately contained to ensure that the waste does not fall, blow, wash or otherwise escape from the site. Appropriate siting of waste stockpile locations will take into account slope and drainage factors to avoid contamination of stormwater drains during rain events.

Waste/recycling storage locations will be assigned during the demolition and construction works and will provide adequate space to accommodate all waste and recycling bins (up to approximately between 10 and 14 x 1,000 L bins or equivalent receptacles) associated with the demolition (**Figure 2**) and construction (refer **Figures 3**). Recycling bins must be accessible to all demolition and construction employees and must be clearly sign posted and colour coded to ensure segregation of

waste and recycling is effective. Waste containers are to be kept clean and in a good state of repair.

## 5.6 Monitoring, Audits and Reporting

Visual assessments of bins and bin storage areas will be conducted by the Environmental Representative, during or after segregation and sorting of wastes into separate streams, as required.

Audits will be conducted periodically by the Environmental Representative to ensure provisions in this CDWMP are maintained.

Quantities of waste and recycling associated with disposal of waste and recycling, including dockets, receipts and other physical records should be kept by the Principal Contractor and provided to the Environmental Representative. These records of waste disposal should also be made available to relevant regulatory authorities such as the NSW EPA and SafeWork NSW, upon request.

Any deficiencies identified in the waste management system, including but not limited to unexpected waste quantities are to be rectified and confirmed by further monitoring. Where audits identify that waste segregation, sorting or recycling are not being carried out effectively, additional staff training, signage re-examination and reviews of the waste management system should be undertaken.

If this waste management plan no longer sufficiently meets the regulatory expectations and obligations, review and updates to maintain suitability must be undertaken, as part of the CEMP regular review process.

# 6. Waste Classification and Removal

## 6.1 Waste Classification

All liquid and non-liquid wastes generated during development construction works (if any) shall be classified in accordance with the requirements of NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

Samples shall be collected by appropriately trained and experienced personnel from stockpiled or in-situ waste materials by the use of a hand trowel. The hand trowel shall be thoroughly decontaminated using phosphate free detergent and distilled water between each sampling location.

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indications of contamination should be noted on the field documentation.

Collected soil samples shall be immediately transferred to sample containers of appropriate composition (glass jars). Sample labels shall record job number; sample identification number; and date and time of sampling.

Sample containers shall be transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form should be completed and forwarded with the samples to the testing laboratory.

Soil samples shall be analysed by both a primary and secondary (independent check) laboratory, both of which shall be NATA accredited for the required analyses. In addition, the laboratories will also be required to meet the environmental consultant's own internal quality assurance requirements.

The analytical data shall be compared against the waste criteria contained in NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste* for heavy metals, TRHs, BTEX, PAHs, total pesticides (OCPs and OPPs), PCBs and TCLP in benzo(a)pyrene, lead and nickel. A summary of the criteria is provided in **Table 4**.

## Table 4 – Summary of Waste Classification Criteria

| Contaminant | General [1] | Restricted [1] | General [2] | Restricted [2] | General [3] | Restricted [3] |
|---|---|---|---|---|---|---|
| | CT1 | CT2 | SCC1 | SCC2 | TCLP1 | TCLP2 |
| | (mg/kg) | (mg/kg) | (mg/kg) | (mg/kg) | (µg/L) | (µg/L) |
| **Heavy metals** | | | | | | |
| **Arsenic** | 100 | 400 | 500 | 2000 | 5.0 | 20 |
| **Cadmium** | 20 | 80 | 100 | 400 | 1.0 | 4 |
| **Lead** | 100 | 400 | 1500 | 6000 | 5 | 20 |
| **Mercury** | 4 | 16 | 50 | 200 | 0.2 | 0.8 |
| **Nickel** | 40 | 160 | 1050 | 4200 | 2 | 8 |
| **BTEX** | | | | | | |
| **Benzene** | 10 | 40 | 18 | 72 | 0.5 | 2 |
| **Toluene** | 288 | 1152 | 518 | 2073 | 14.4 | 57.6 |
| **Ethylbenzene** | 600 | 2400 | 1080 | 4320 | 30 | 120 |
| **Xylenes (total)** | 1000 | 4000 | 1800 | 7200 | 50 | 200 |
| **Petroleum Hydrocarbons** | | | | | | |
| **$C_6$-$C_9$** | N/A | N/A | 650 | 2600 | N/A | N/A |
| **$C_{10}$-$C_{36}$** | N/A | N/A | 10000 | 40000 | N/A | N/A |
| **PAHs** | | | | | | |
| **Benzo(a)pyrene** | 0.8 | 3.2 | 10 | 23 | 0.04 | 0.16 |
| **PAHs (total)** | N/A | N/A | 200 | 800 | N/A | N/A |
| **Pesticides (total)** | N/A | N/A | 250 | 1000 | N/A | N/A |
| **PCBs (total)** | N/A | N/A | <50 | <50 | N/A | N/A |

Notes:

1. Contaminant threshold values for classifying waste by chemical assessment without the leaching (TCLP) test (Table 1) – NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

2. Specific contaminant concentration (SCC) values for classifying waste by chemical assessment (Table 2) – NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

3. Leachable concentration (TCLP) values for classifying waste by chemical assessment (Table 2) – NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*.

## 6.2 Waste Transporting

All wastes removed from the site shall be transported in accordance with relevant road and transportation regulatory requirements. Where required (depending on the classification of the wastes), appropriately licensed transport contractors shall be used.

The appointed transporters shall be responsible for ensuring they are appropriately licensed to:

- Carry the particular type of waste; and
- Transport the materials to an appropriately licensed facility.

Where the waste is classified as Restricted Waste or Hazardous Waste, the transporter is required to carry (subject to a number of exceptions) appropriately completed waste data forms with each load, and provide a copy to the waste facility to which the waste is taken.

# 7. Contingency Measures

## 7.1 Waste Awareness Strategy

Site personnel during construction and demolition works should be made aware of their obligations to actively participate in the following waste management measures:

- Increase ability and willingness to participate in recycling;
- Improve amenity and safety by reporting unexpected wastes;
- Improve knowledge and awareness through standardisation of services;
- Increase awareness or achievement of environmental goals and targets;
- Reduce cross-contamination of recyclables stream; and
- Contribute to targets for waste reduction and resource recovery and the environment.

The following waste awareness strategies should be considered:

- Use consistent signage and colour coding;
- Ensure all staff are trained in correct waste separation and management procedures;
- Provide directional signage to show location of and routes to waste storage areas;
- General waste and co-mingled recycling bins should be clearly labelled and colour-coded to ensure no cross contamination; and
- Place awareness signage, colour coding, flagging or labels promptly to avoid breakdown of communications.

## 7.2 Unexpected Wastes

Unexpected wastes such as asbestos or other potentially contaminated or hazardous wastes must be handled in accordance with the existing appropriate legislation and regulations.

In accordance with Penrith's DCP and NSW EPA guidelines contaminated or hazardous wastes identified at the site should be managed/handled by qualified and certified personnel.

All contaminated or hazardous wastes should be removed and disposed offsite at an appropriately licenced landfill facility.

# 8. Limitation Statement

This report has been prepared for use by Frasers Industrial Constructions Pty Ltd and Altis Property Partners Pty Ltd who commissioned the works in accordance with the project brief only and has been based in part on information obtained from other parties. The advice herein relates only to this project and all information provided should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. Additionally, this report has been based on data documented by other parties in previous reports.

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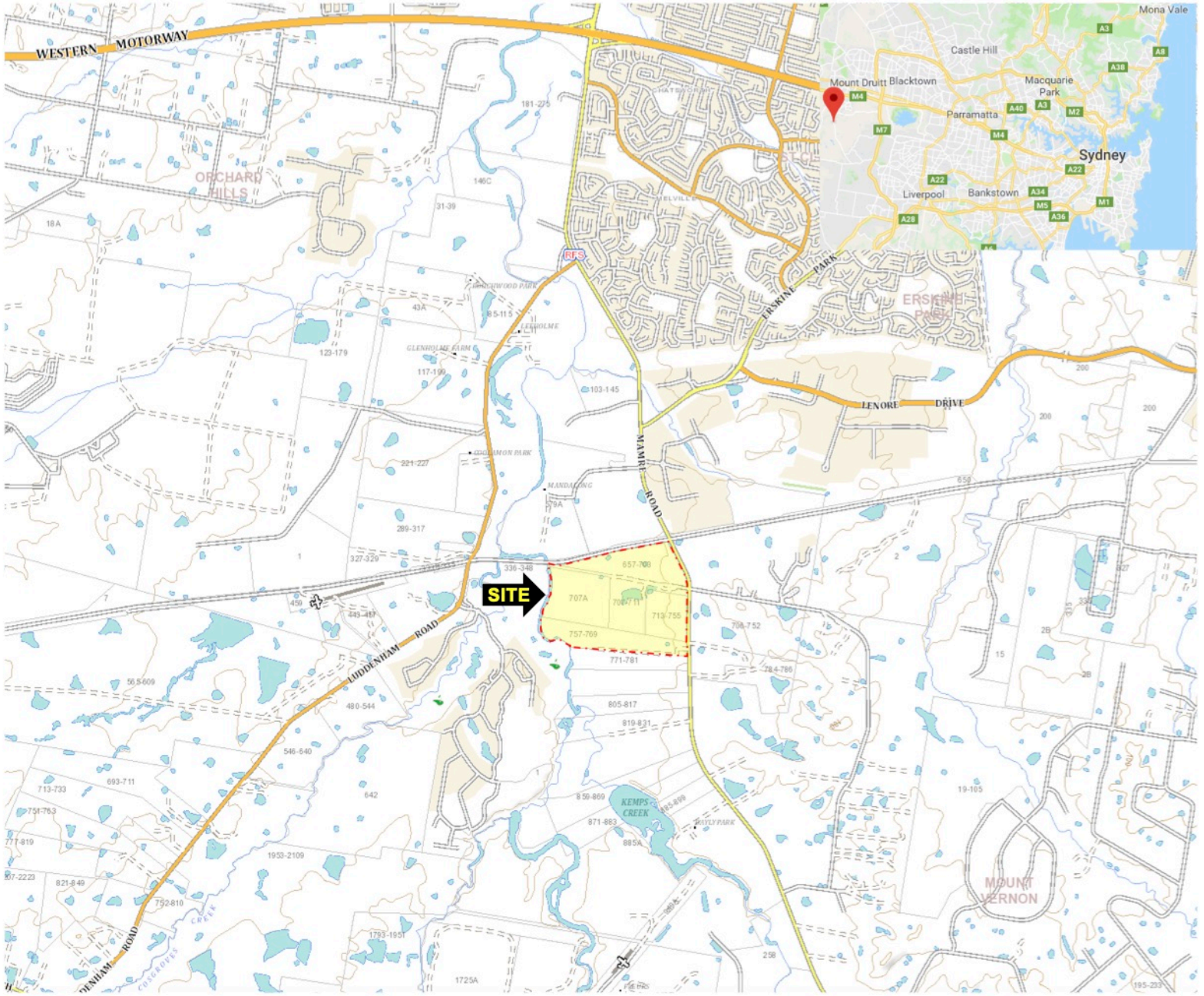
Waste quantities and sources are based on documents made available to LG consult by Frasers Industrial Constructions Pty Ltd and Altis Property Partners Pty Ltd.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein.

# Figures




SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

Site Boundary

Image courtesy of Google & Six Maps

| | |
|---|---|
| REV: | A |
| DATE: | 04/01/2021 |
| DRAWN: | GP |
| APPROVED: | GP |
| STATUS: | Final |
| DWG NO: | |

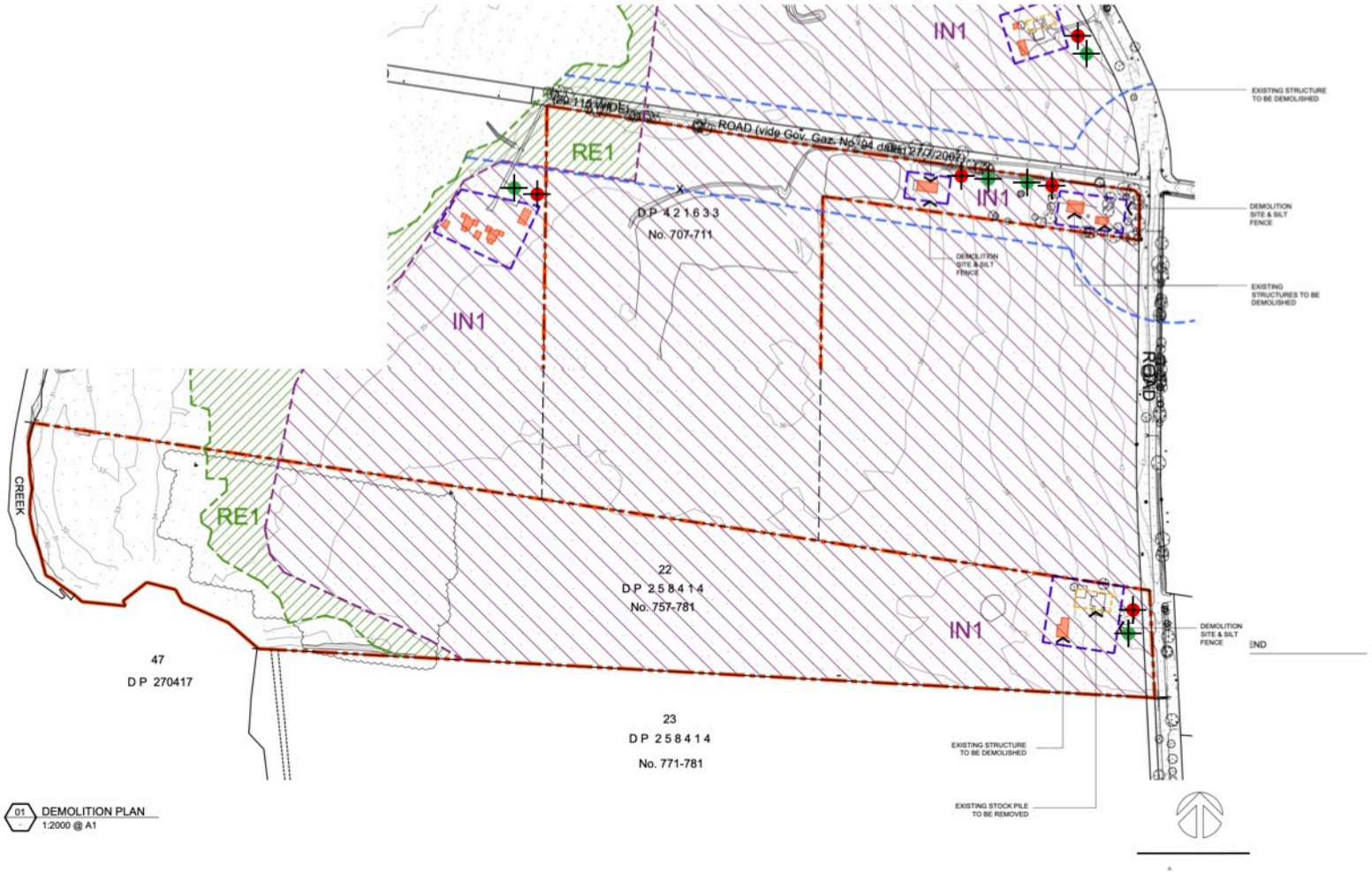
CLIENT: **Frasers & Altis**

PROJECT: **657–769 Mamre Road Kemps Creek, NSW**

PROJECT NUMBER: LG2042.01

TITLE: **Site Location Plan**

FIGURE: **1** A4




01 DEMOLITION PLAN
1:2000 @ A1

SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

- EXISTING STRUCTURE TO BE DEMOLISHED
- PROPERTY BOUNDARY
- DEMOLITION AREA SITE & SILT FENCE
- EXISTING STOCKPILE TO BE REMOVED
- ZONE IN1 - GENERAL INDUSTRIAL
- ZONE RE1 - PUBLIC RECREATION
- ZONE RE2 - PRIVATE RECREATION
- TRANSPORT INVESTIGATION AREA B
- 1000 L Mobile Garbage Bin (MGB) for General Garbage
- 1000 L MGB for Recycling

Image courtesy of Frasers & Altis

LG CONSULT

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|---|---|
| REV: | A |
| DATE: | 04/01/2021 |
| DRAWN: | GP |
| APPROVED: | GP |
| STATUS: | Final |
| DWG NO: | |

CLIENT: **Frasers & Altis**

PROJECT: **657–769 Mamre Road Kemps Creek, NSW**

PROJECT NUMBER: LG2042.01

TITLE: **Demolition Waste Bin Plan**

FIGURE: **2** A4


SCALE: DRAWN TO SCALE AS SHOWN

Not To Scale

NORTH

LEGEND:

- 1000 L MGB for General Garbage
- 1000 L MGB for Recycling

Image courtesy of Frasers & Altis

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| | |
|---|---|
| REV: | A |
| DATE: | 04/01/2021 |
| DRAWN: | GP |
| APPROVED: | GP |
| STATUS: | Final |
| DWG NO: | |

CLIENT: **Frasers & Altis**

PROJECT: **657–769 Mamre Road Kemps Creek, NSW**

PROJECT NUMBER: LG2042.01

TITLE: **Construction Waste Bin Plan**

FIGURE: **3** A4