



# Leigh Design

*waste management plans for all urban developments*

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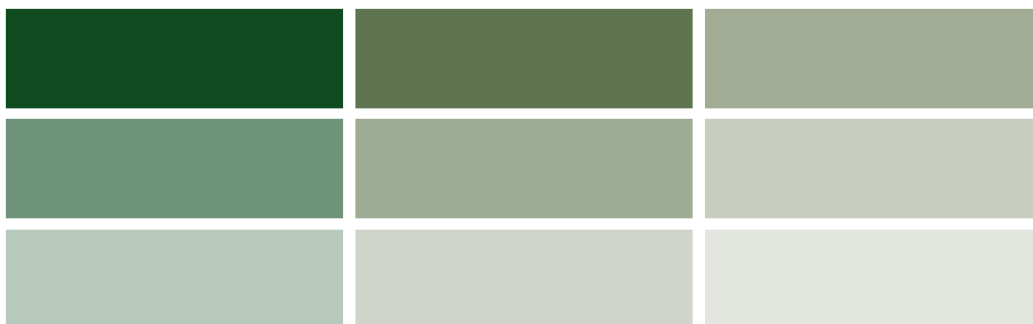
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## Waste Management Plan



### **Proposed Development:**

**88 and 90 Cornwall Street, Taree, New South Wales**

### **Prepared for:**

**Cancer Care Associates Pty Ltd**

### Document Control

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### **WASTE MANAGEMENT SUMMARY**

- The Operator, as defined below, shall be responsible for managing the waste system and for developing and implementing safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall place sorted waste into shared bins.
- Waste shall be collected on Cornwall Street.
- A private contractor shall provide waste collection services (transferring bins between the Bin Store and the truck).

### **GLOSSARY**

**Operator:** refers to the owner(s) and/or Facility Management, who shall manage site operations with the aid of cleaners and contractors.

**User:** refers to site staff, who shall utilise the waste system.

## **1 SPACE AND SYSTEM FOR WASTE MANAGEMENT**

### **1.1 Development Description and Use**

This development shall consist of cancer care facility (refer to Table 1).

### **1.2 Estimated Waste Generation**

The following table summarises the waste estimate (m<sup>3</sup>/week):

Table 1: Waste Estimate

Waste Source	Base Qty (est.)	Garbage	Commingled Recycling
Medical Centre	area (m <sup>2</sup> ) = 678	0.95	0.47
<b>TOTAL (m<sup>3</sup>/wk)</b>		<b>0.95</b>	<b>0.47</b>

Note: Medical figures are based on NSW EPA Guidelines.

### **1.3 Collection Services**

Waste shall be collected privately. The Operator shall choose a waste collection provider, negotiate a service agreement, and pay for these services.

Note: Every rateable tenement is liable to pay for municipal charges irrespective of the level of collection services provided by Council.

### **1.4 Location, Equipment, and System Used for Managing Waste**

The waste management system is summarised as follows:

- Tenancy receptacles at work/amenity areas.
- Bin Store at Ground Level (located near the onsite Pick-Up Zone).
- Collection bins (kept within the Bin Store - refer to Table 2).

The various collection waste-streams are summarised as follows:

Garbage: General waste shall be placed in tied plastic bags and stored within bins.

Recycling: All recyclables shall be commingled into a single type of collection bin (for paper, cardboard, glass, aluminium, steel, and plastics). Should glass separation be required in future, the Operator shall provide dedicated glass bins.

Green Waste: Garden organics shall be collected and disposed by the landscape maintenance contractor.

Food Organics: Based on the medical use of the facility, a minimal food organics yield is anticipated.

**Clinical Waste:** Clinical waste (medical, infectious, cytotoxic, sharps, chemical, pharmaceutical, radioactive, etc) shall be managed in accordance with the Industry Code of Practice for the Management of Biohazardous Waste (including Clinical & Related wastes, 8<sup>th</sup> edition, 2020). A specialist clinical waste contractor shall be engaged to implement the code, provide facility design and operational details (incl. a Clinical WMP) for the safe handling and disposal of clinical waste, and for waste collection and treatment (refer to suggested contacts in Sect. 6). Waste shall be stored in the Dirty Utility Room. Collections shall be organised by the Operator.

**Other Waste Streams:** The disposal of hard/electronic/liquid and other wastes (polystyrene, batteries, paint, chemicals and detox items, etc) shall be organised with the assistance of the Operator. These items shall remain in a storeroom within the building until removed by a private collector.

Also, office managers shall arrange for the appropriate disposal of secured paper and toner/printer cartridges.

The following table summarises bin quantity/capacity, collection frequency, and area requirements (based on Table 1):

**Table 2: Bin Schedule and Collection Frequency**

<b>Waste Source</b>	<b>Waste Stream</b>	<b>Bin Qty</b>	<b>Bin Litres</b>	<b>Collections per Week</b>	<b>Net Area m<sup>2</sup></b>
Whole Development (shared bins)	Garbage	4	240	1	2.0
	Recycling	2	240	1	1.0
<b>Net Waste Storage Area (excludes circulation), m<sup>2</sup>:</b>					<b>3.0</b>

Notes:

- Bins shall be sourced by the Operator (either purchased from a supplier or leased from the collection contractor).
- Subject to stakeholders' preference/capability (and as built constraints), bin sizes and quantities can be changed. Also, recyclables can be either commingled or split into bins for separate recycling streams.

### **1.5 Planning Drawings, Waste Areas, and Management of the Waste System**

The drawings illustrate sufficient space for onsite bin storage, as required by the above schedule.

Notwithstanding the above, collection days shall be staged appropriately and the Operator shall stipulate procedures for effective management of the available space.

## 1.6 Collection Bin Information

The following bins shall be utilised (see Sect. 4.4 for signage requirements):

Table 3: Bin Details

<b>Capacity (litres)</b>	<b>Height (mm)</b>	<b>Width (across front, mm)</b>	<b>Depth (side on, mm)</b>	<b>Empty Weight (kg)</b>	<b>Average* Gross Weight (kg)</b>
240	1060	585	730	13	45

Notes:

- \* = Average Gross Weight is based on domestic waste studies (which vary subject to locality and waste-type). Expect greater weight for wet or compacted waste.
- Use the above details as a guide only – variations will occur. The above is based on Sulo plastic (HDPE) flat-lid bins.

Table 4: AS 4123.7-2006 Plastic Bin Colour Coding

<b>Bin</b>	<b>Garbage</b>	<b>Recyclables</b>	<b>Green Waste</b>
Lid	Red	Yellow	Lime Green
Body	Dark Green / Black	Dark Green / Black	Dark Green / Black

Note: Private bins shall be labelled to identify the waste generator and site address.

## **2 ACCESS FOR USERS, COLLECTORS, AND COLLECTION VEHICLES**

### **2.1 User Access to Waste Facilities**

Users shall dispose sorted waste into designated bins (if required, using a suitable trolley and the lift). Similarly, the Operator shall maintain waste receptacles from common amenity areas.

Note: If required, the Operator shall have access to waste areas to rotate the bins, ensuring that empty bins are available along the circulation area so that users are able to reach the bins.

### **2.2 Collection Arrangements and Access to Waste Facilities**

- A private contractor shall collect waste on Cornwall Street.
- Collection staff shall have access to the Bin Store and transfer bins to the truck and back to the store.
- Waste shall be collected by side/rear-lift vehicles (nom. 9.8m long, 4m operational height, and 24 tonnes gross vehicle mass).

### **3 AMENITY, LOCAL ENVIRONMENT, AND FACILITY DESIGN**

#### **3.1 Noise Minimisation Initiatives**

- Collection bins shall feature rubber wheels for quiet rolling during transfers.
- Waste areas and collection arrangements shall meet acoustic requirements.
- Local laws shall be observed for all operations in public and private areas.
- The waste collector shall protect the acoustic amenity by minimising noise during the collection, adhering to the NSW Protection of the Environment Operations (Noise Control) Regulation.

#### **3.2 Litter Reduction and Prevention of Stormwater Pollution**

The Operator shall be responsible for:

- Promoting adequate waste disposal into the bins (to avoid waste-dumping).
- Securing the waste areas (whilst affording access to users/staff/contractors).
- Preventing overfilled bins, keeping lids closed.
- Abating any site litter and taking action to prevent dumping and/or unauthorised use of waste areas.
- Requiring the collection contractor to clean-up any spillage that might occur when clearing bins.

The above will minimise the dispersion of site litter and prevent stormwater pollution (thus avoiding impact to the local amenity and environment).

#### **3.3 Ventilation, Washing, and Vermin-Prevention Arrangements**

Waste areas shall feature:

- Ventilation in accordance with Australian Standard AS1668.
- Tight-fitting doors (all other openings shall have vermin-proof mesh or similar).
- Impervious flooring (also, smooth, slip-resistant, and appropriately drained).
- A graded bin wash area, hosecocks, hose, and a suitable floor-waste connected in accordance with relevant authority requirements (alternatively, the Operator shall engage a suitable contractor to wash bins in a mobile bin-wash vehicle). The bin and wash areas may overlap, as stored bins can be moved so that a bin can be washed.

The Operator shall regularly clean waste areas/equipment. Also, access doors and bin-lids shall be kept closed.

#### **3.4 Design and Aesthetics of Waste Storage Areas and Equipment**

Waste shall be placed within collection bins and stored in designated onsite areas (hidden from external view). Following waste collection activities, bins shall be returned to the storage areas as soon as practicable.

Waste facilities shall be constructed of durable materials and finishes, and maintained to ensure that the aesthetics of the development are not compromised. These facilities and associated passages shall be suitably illuminated (this provides

comfort, safety, and security to users, staff, and contractors). Access doors shall feature keyless opening from within.

The design and construction of waste facilities and equipment shall conform to the Building Code of Australia, Australian Standards, and local laws.



## **4 MANAGEMENT AND SUSTAINABILITY**

### **4.1 Waste Sorting, Transfer, and Collection Responsibilities**

Garbage shall be placed within tied plastic bags prior to transferring into collection bins. Cardboard shall be flattened and recycling containers un-capped, drained, and rinsed prior to disposal into the appropriate bin. Bagged recycling is not permitted.

Refer to Section 2 for waste transfer requirements and collection arrangements.

### **4.2 Facility Management Provisions to Maintain & Improve the Waste System**

The Operator shall manage site operations (refer to the glossary in page 2).

It shall be the responsibility of the Operator to maintain all waste areas and components, to the satisfaction of users, staff, and the relevant authority (users shall maintain their internal waste receptacles).

The Operator shall ensure that maintenance and upgrades are carried-out on the facility and components of the waste system. When required, the Operator shall engage an appropriate contractor to conduct services, replacements, or upgrades.

### **4.3 Arrangements for Protecting Waste Equipment from Theft and Vandalism**

It shall be the responsibility of the Operator to protect the equipment from theft and vandalism. This shall include the following initiatives:

- Secure the waste areas.
- Label the bins according to property address.
- The private collection contractor shall transfer bins between the waste area and the truck (bins shall not be placed on the street).

### **4.4 Arrangements for Bins/Equipment Labelling and Ensuring Users and Staff are Aware of How to Use the Waste System Correctly**

- The Operator shall provide appropriate signage for the bins. Signage is available at the following internet address: [www.epa.nsw.gov.au](http://www.epa.nsw.gov.au).
- The Operator shall publish/distribute “house rules” and educational material to:
  - Inform users/staff about the waste management system and the use/location of the associated equipment (provide the summary in page 2 of this report).
  - Improve facility management results (lessen equipment damage and chute blockages, reduce littering, and achieve cleanliness).
  - Advise users/staff to sort and recycle waste with care to reduce contamination of recyclables.

### **4.5 Sustainability and Waste Avoidance/Reuse/Reduction Initiatives**

The New South Wales Waste Avoidance and Resource Recovery Act promotes waste avoidance and sets targets for increasing the recovery rate of solid waste for reuse and recycling.

The Operator shall promote the observance of the above legislation and encourage users and staff to participate in minimising the impact of waste on the environment. For improved sustainability, the Operator shall consider the following:

- Perusal of the EPA Website: [www.epa.nsw.gov.au](http://www.epa.nsw.gov.au).
- Consideration of state's Waste Hierarchy (in order of preference): 1) waste avoidance, 2) resource recovery (reuse/recycle), and 3) waste disposal.
- Participation in council and in-house programs for waste minimisation.
- Establishment of waste reduction and recycling targets; including periodic waste audits, keeping records, and monitoring of the quantity of recyclables found in landfill-bound bins (sharing results with users/staff).

#### **4.6 Waste Management Plan Revisions**

For any future appropriate Council request, changes in legal requirements, changes in the development's needs and/or waste patterns (waste composition, volume, or distribution), or to address unforeseen operational issues, the Operator shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required):

- A waste audit and new waste strategy.
- Revision of the waste system (bin size/quantity/streams/collection frequency).
- Re-education of users/staff.
- Revision of the services provided by the waste collector(s).
- Any necessary statutory approval(s).

## **5 SUPPLEMENTARY INFORMATION**

- The Operator shall observe local laws and ensure that bins aren't overfilled or overloaded.
- Waste incineration devices are not permitted, and offsite waste treatment and disposal shall be carried-out in accordance with regulatory requirements.
- For bin traffic areas, either level surfaces (smooth and without steps) or gentle ramps are recommended, including a roll-over kerb or ramp. Should ramp gradients, bin weight, and/or distance affect the ease/safety of bin transfers, the Operator shall consider the use of a suitable tug.
- The Operator and waste collector shall observe all relevant OH&S legislation, regulations, and guidelines. The relevant entity shall define their tasks and:
  - Abide by all relevant OH&S legislation, regulations, and guidelines.
  - Ensure the collector's compliance with NSW WorkCover Code of Practice for Collection of Domestic Waste.
  - Address the manual handling risk for waste and bin transfers (as per the National Code of Practice for Manual Handling).
  - Observe the NSW WorkCover Code of Practice for risk assessments. Obtain and provide to staff/contractors equipment manuals, training, health and safety procedures, risk assessments, and adequate personal protective equipment (PPE) to control/minimise risks/hazards associated with all waste management activities. As a starting point, these documents and procedures shall address the following:

<b>Task (to be confirmed)</b>	<b>Hazard (TBC)</b>	<b>Control Measures (TBC)</b>
Sorting waste and cleaning the waste system	Bodily puncture. Biological & electrical hazards	Personal protective equipment (PPE). Develop a waste-sorting procedure
Bin manual handling	Sprain, strain, crush	PPE, staff training. Maintain bin wheel-hubs. Limit bin weight. Provide mechanical assistance to transfer bins
Bin transfers and emptying into truck	Vehicular strike, run-over	PPE. Develop a Hazard Control Plan for transfers and collections. Maintain visibility. Use a mechanical bin-tipper
Truck access	Vehicular incident, strike, run-over	PPE. Use a trained spotter. Develop a truck-maneuvring and traffic-control procedure

Note: The above shall be confirmed by a qualified OH&S professional who shall also prepare site-specific assessments, procedures, and controls (refer to Section 6).

## **6 CONTACT INFORMATION**

**Mid-Coast Council** (local council), ph 02 7955 7777

**JJ Richards & Sons** (private waste collector), ph 03 6555 7007

**Eco-Safe Technologies** (odour control equipment supplier), ph 03 9706 4149

**FJP Safety Advisors Pty Ltd** (OH&S consultant), ph 03 9255 3660

**Electrodrive Pty Ltd** (tug & trailer supplier – for bin transfers), ph 1800 333 002

**Sabco Commercial** (supplier of cleaner's trolleys), ph 1800 066 522

**Sulo MGB Australia** (plastic bin supplier), ph 1300 364 388

Note: The above includes a complimentary listing of contractors and equipment suppliers. The stakeholders shall not be obligated to procure goods/services from these companies. Leigh Design does not warrant (or make representations for) the goods/services provided by these suppliers.

## **7 LIMITATIONS**

The purpose of this report is to document a Waste Management Plan, as part of a Development Application.

This report is based on the following conditions:

- Operational use of the development (excludes demolition/construction stages).
- Drawings and information supplied by the project architect.
- The figures presented in this report are estimates only. The actual amount of waste will depend on the development's occupancy rate and waste generation intensity, the user's disposition toward waste and recycling, and the Operator's approach to waste management. The Operator shall make adjustments, as required, based on actual waste volumes (if the actual waste volume is greater than estimated, then the number of bins and/or the number of collections per week shall be increased, STCA).
- This report shall not be used to determine/forecast operational costs, or to prepare feasibility studies, or to document operational/safety procedures.