



Cricket NSW - Centre of Excellence - SOPA  
Sporting Facility Development

## OPERATIONAL WASTE MANAGEMENT PLAN

8/10/2019  
Report No. SO308  
Revision C

Client

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## SCOPE

This waste management plan (WMP) only applies to the **operational** phase of the proposed development; therefore the requirements outlined in this WMP must be implemented during the operational phase of the site and may be subject to review upon further expansion for, and/or changes to the development.

The waste management of the **construction** and **demolition** phases of the development are not addressed in this report. It is EFRS's understanding that a construction and demolition WMP will be completed by a separate party appointed by the developer, and submitted separately to this report. Typically, the head contractor of the site will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements.

## REVISION REFERENCE

Revision	Date	Prepared by	Reviewed by	Description	Signed
A	29/08/2019	J Parker	A Armstrong	Draft	
B	17/09/2019	J Parker	A Armstrong	Amendment	
C	8/10/2019	J Parker	A Armstrong	Final	

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# TABLE OF CONTENTS

GLOSSARY OF TERMS.....	i
LIST OF TABLES.....	ii
INTRODUCTION .....	1
DEVELOPMENT SUMMARY .....	1
SITE LOCATION.....	2
CITY OF PARRAMATTA (PARRAMATTA CITY COUNCIL) .....	3
COUNCIL OBJECTIVES.....	3
COUNCIL REQUIREMENTS .....	3
STAKEHOLDER ROLES AND RESPONSIBILITIES.....	4
EDUCATION.....	5
LIMITATIONS .....	5
CRICKET NSW CENTRE OF EXCELLENCE WASTE PLAN .....	6
ESTIMATED WASTE VOLUMES AND PROVISIONS .....	6
WASTE MANAGEMENT.....	6
OFFICE & RECEPTION AREAS.....	6
GYM AREAS, CHANGING FACILITIES & PRACTICE PITCHES .....	6
CAFE .....	7
SPORTS SCIENCE AND SPORTS MEDICINE FACILITIES .....	7
COMMON AREAS .....	8
WASHROOM FACILITIES .....	8
OTHER WASTE STREAMS.....	8
MOVEMENT AND TRANSPORTATION OF BINS .....	9
COLLECTION OF WASTE.....	9
COLLECTION AREA .....	9
INSTALLATION EQUIPMENT AND DESIGN .....	10
EQUIPMENT SUMMARY .....	10
WASTE ROOM AREAS .....	10
GARBAGE ROOMS.....	11
CONSTRUCTION REQUIREMENTS.....	11
SIGNAGE .....	11
VENTILATION .....	11
USEFUL CONTACTS .....	12
APPENDICES.....	13
APPENDIX A ARCHITECTURAL DRAWING EXCERPTS .....	13
APPENDIX A.1 SITE PLAN .....	13
APPENDIX A.2 WASTE ROOM/COLLECTION AREA.....	14
APPENDIX B PRIMARY WASTE MANAGEMENT PROVISIONS .....	15

## **OPERATIONAL WASTE MANAGEMENT PLAN**

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APPENDIX B.1	TYPICAL BIN SPECIFICATIONS .....	15
APPENDIX B.2	SIGNAGE FOR WASTE & RECYCLING BINS .....	16
APPENDIX B.3	TYPICAL COLLECTION VEHICLE INFORMATION .....	17
APPENDIX B.4	TYPICAL MOTORISED BIN TUG .....	18
APPENDIX B.5	TYPICAL SEATED BIN MOVER.....	19
APPENDIX C	SECONDARY WASTE MANAGEMENT PROVISIONS.....	20
APPENDIX C.1	COOKING OIL CONTAINERS.....	20
APPENDIX C.2	TYPICAL BACK OF HOUSE BINS .....	21
APPENDIX C.3	TYPICAL PUBLIC PLACE WASTE BINS .....	22

## GLOSSARY OF TERMS

TERM	DESCRIPTION
<i>Baler</i>	A device that compresses waste into a mould to form bales which may be self-supporting or retained in shape by strapping
<i>Collection Area/Point</i>	The identified position or area where garbage or recyclables are actually loaded onto the collection vehicle
<i>Compactor</i>	A machine for compressing waste into disposable or reusable containers
<i>Composter</i>	A container/machine used for composting specific food scraps
<i>Crate</i>	A plastic box used for the collection of recyclable materials
<i>Garbage</i>	All domestic waste (Except recyclables and green waste)
<i>Green Waste</i>	All vegetated organic material such as small branches, leaves and grass clippings, tree and shrub pruning, plants and flowers
<i>Hopper</i>	A fitting into which waste is placed and from which it passes into a chute or directly into a waste container. It consists of a fixed frame and hood unit (the frame) and a hinged or pivoted combined door and receiving unit
<i>L</i>	Litre(s)
<i>Liquid Waste</i>	Non-hazardous liquid waste generated by commercial premises that is supposed to be connected to sewer or collected for treatment and disposal by a liquid waste contractor (including grease trap waste)
<i>LRV</i>	Large rigid vehicle described by AS 2890.2-2002 Parking facilities – Off-street commercial vehicle facilities as heavy rigid vehicle (HRV)
<i>Mobile Garbage Bin(s) (MGB)</i>	A waste container generally constructed of plastic with wheels with a capacity in litres of 120, 240, 360, 660, 1000 or 1100
<i>MRV</i>	Medium rigid vehicle
<i>Putrescible Waste</i>	Component of the waste stream liable to become putrid. Usually breaks down in a landfill to create landfill gases and leachate. Typically applies to food, animal and organic products.
<i>Recycling</i>	Glass bottles and jars – PET, HDPE and PVC plastics; aluminium aerosol and steel cans; milk and juice cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines
<i>Refuse</i>	Material generated and discarded from residential and commercial buildings including general waste, recyclables, green waste and bulky items
<i>SRV</i>	Small rigid vehicle as in AS 2890.2-2002 Parking facilities – Off-street commercial vehicle facilities, generally incorporating a body width of 2.33

## LIST OF TABLES

Table 1: Stakeholder Roles and Responsibilities.....	4
Table 2: Calculated Waste Generation.....	6
Table 3: Storage and Collection Requirements for Medical Waste .....	8
Table 4: Equipment Summary.....	10
Table 5: Waste Room Areas .....	10

## INTRODUCTION

EFRS has been tasked to prepare the following waste management plan for Cox Architecture for the operational management of waste generated by the Cricket NSW Centre of Excellence development located at Wilson Park, Sydney Olympic Park, Silverwater NSW.

Waste management strategies and auditing are a requirement for new developments to provide support for the building design, and promote strong sustainability outcomes for the building. It is EFRS's belief that a successful waste management strategy contains three key objectives:

- i. **Promote responsible source separation** to reduce the amount of waste that goes to landfill, by implementing convenient and efficient waste management systems
- ii. **Ensure adequate waste provisions and robust procedures** that will cater for potential changes during the operational phase of the development
- iii. **Compliance** with all relevant council codes, policies, and guidelines.

To achieve these objectives, this WMP identifies the different waste streams likely to be generated during the operational phase of the development. Associated information includes: how the waste will be handled and disposed of, details of bin sizes/quantities and waste rooms, descriptions of the proposed waste management equipment used and information on waste collection points and frequencies.

It is essential that this waste management plan is integral to the overall management of the building and clearly communicated to all relevant stakeholders.

## DEVELOPMENT SUMMARY

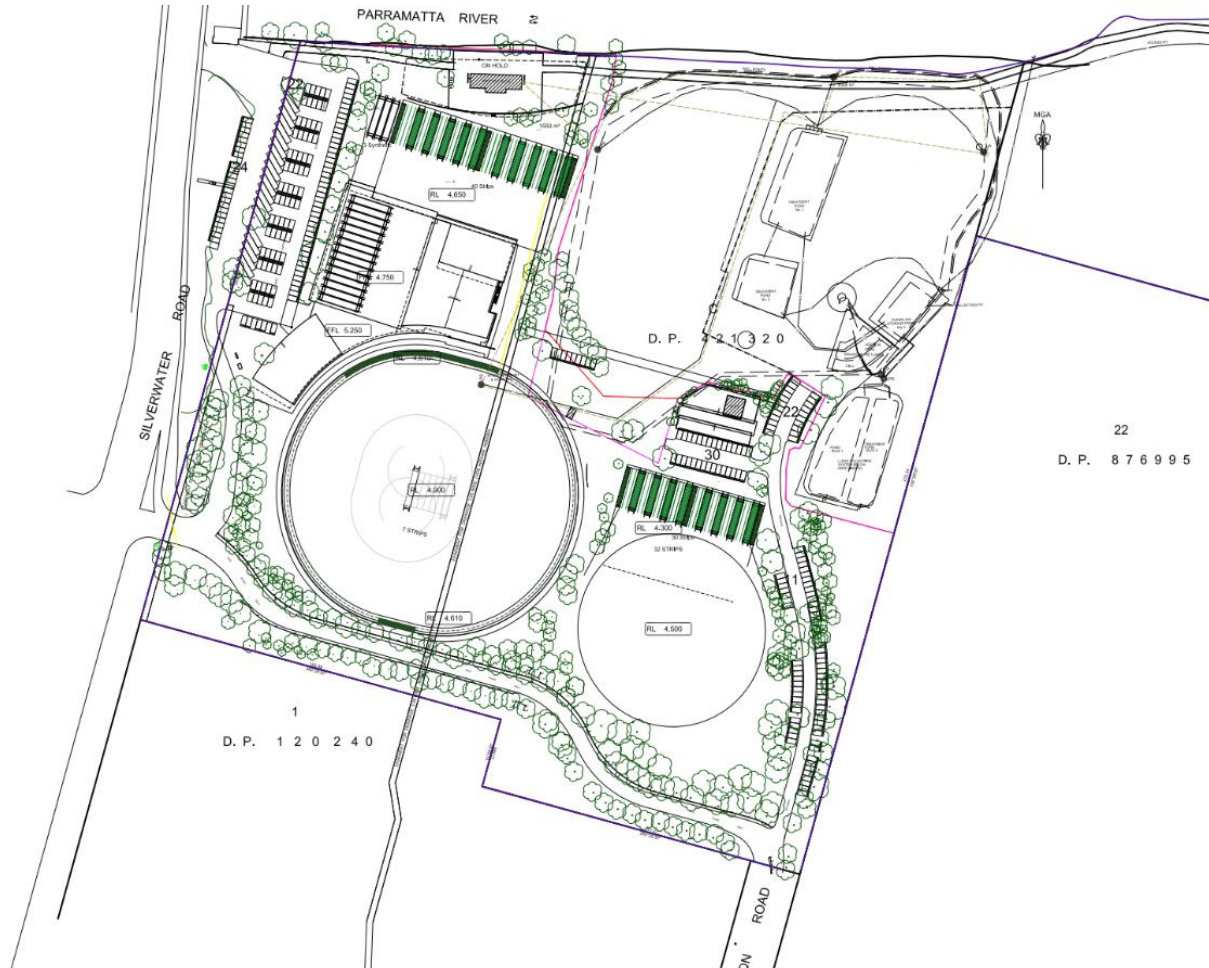
The proposal relates to a State Significant Development Application (SSDA) to facilitate the development of a Cricket Centre for Cricket NSW at the Wilson Park site. Specifically, the works that are proposed for the SSDA include:

- A two-storey cricket centre including an internal atrium, gymnasium, community facilities, sports science and sports medicine facilities and business offices;
- An International Cricket Council (ICC) compliant cricket oval 136m long x 144m wide (16,040m<sup>2</sup>) and associated seating;
- A community cricket oval with a diameter of 95m (6365m<sup>2</sup>);
- Outdoor practice nets with 71 wickets;
- A double height (8m) indoor training facility with 15 wickets;
- A single storey shed for machinery;
- Associated car parking, landscaping and public domain works; and
- Extension and augmentation of services and infrastructure as required.

All figures and calculations are based on area schedules as advised by our client and shown on architectural drawings.

## SITE LOCATION

The site is located at Wilson Park, Sydney Olympic Park, as shown below. The site has frontages to Silverwater Road, Clyde Street and Newington Road, with vehicular access from each of these streets.



Source: Cox Architecture – Site Plan



## CITY OF PARRAMATTA (PARRAMATTA CITY COUNCIL)

The development is within City of Parramatta jurisdiction. City of Parramatta is the amalgamation of parts of Parramatta City Council, The Hills Shire Council, Auburn City Council, Holroyd City Council and Hornsby Shire Council. At time of writing this waste management plan, the waste services and associated policies operate under the original council divisions.

Therefore, the garbage and recycling will be guided by the services and acceptance criteria of the Parramatta City Council. All waste facilities and equipment are to be designed and constructed to be in compliance with the Parramatta City Council's *Parramatta Development Control Plan 2011*, Parramatta City Council's *Waste Management Guidelines for new Development Applications 2016*, Australian Standards and statutory requirements.

### COUNCIL OBJECTIVES

- To reduce the quantity of waste and encourage the recycling of waste generated by demolition and the construction of new developments.
- To encourage building design that will minimise waste generation over the lifetime of the building.
- To ensure that the disposal of waste generated by a building's occupants over its lifetime is managed appropriately, efficiently and provides for maximum recovery, recycle or reuse.
- To ensure that waste storage facilities are located appropriately and do not impact negatively on the streetscape.
- To ensure that waste can be effectively collected and managed.
- To assist in achieving Federal and State Government waste minimisation and resource recovery (landfill diversion) targets.
- To minimise the overall environmental impacts of waste, in line with the principles of Ecologically Sustainable Development (ESD).

### COUNCIL REQUIREMENTS

**Access** – Ensure waste systems are easy to use and collection vehicles are able to access buildings to safely remove waste and recycling;

**Safety** – Ensure safe practises for storage, handling and collection of waste and recycling;

**Pollution Prevention** – Prevent stormwater pollution that may occur as a result of poor waste storage and management practises;

**Noise Minimisation** – Provide acoustic insulation to the waste service facilities or residential units adjacent to or above chutes, waste storage facilities, chute discharge, waste compaction equipment and waste collection vehicle access points;

**Ecologically Sustainable Development (ESD)** – Promote the principles of ESD through resource recovery and recycling leading to a reduction in the consumption of finite natural resources;

**Hygiene** – Ensure health and amenity for residents, visitors and workers in the City of Parramatta.

## STAKEHOLDER ROLES AND RESPONSIBILITIES

The following table demonstrates the primary roles and responsibilities of the respective stakeholders:

*Table 1: Stakeholder Roles and Responsibilities*

Roles	Responsibilities
Strata/Management	<ul style="list-style-type: none"> <li>Ensuring that all waste service providers submit monthly reports on all equipment movements and waste quantities/weights;</li> <li>Organising internal waste audits/visual assessments on a regular basis; and</li> <li>Manage any non-compliances/complaints reported through waste audits.</li> </ul>
Building Manager/Waste Caretaker	<ul style="list-style-type: none"> <li>Ensuring effective signage, communication and education is provided to occupants, tenants and cleaners;</li> <li>Providing staff/contractors with equipment manuals, training, health and safety procedures, risk assessments, and PPE to control hazards associated with all waste management activities;</li> <li>Ensuring site safety for residents, children, visitors, staff and contractors;</li> <li>Abiding by all relevant OH&amp;S legislation, regulations, and guidelines;</li> <li>Assessing any manual handling risks and prepare a manual handling control plan for waste and bin transfers;</li> <li>Preventing storm water pollution by taking necessary precautions (securing bin rooms, preventing overfilling of bins)</li> <li>Cleaning and transporting of bins as required;</li> <li>Organising, maintaining and cleaning the general and recycled waste holding area;</li> <li>Organising both garbage and recycled waste pick-ups as required;</li> <li>Organising replacement or maintenance requirements for bins;</li> <li>Organising bulky goods collection when required; and</li> <li>Investigating and ensuring prompt clean-up of illegally dumped waste materials.</li> </ul>
Customers/Tenants	<ul style="list-style-type: none"> <li>Dispose of all garbage and recycling in the allocated MGBs provided;</li> <li>Ensure adequate separation of garbage and recycling; and</li> <li>Compliance with the provisions of Council and the WMP.</li> </ul>
Waste Contractor	<ul style="list-style-type: none"> <li>Provide a reliable and appropriate waste collection service;</li> <li>Provide feedback to building managers/tenants in regards to contamination of recyclables; and</li> <li>Work with building managers to customise waste systems where possible.</li> </ul>
Gardening/Landscaping Contractor	<ul style="list-style-type: none"> <li>Removal of all garden organic waste generated during gardening maintenance activities for recycling at an offsite location.</li> </ul>
Building Contractors	<ul style="list-style-type: none"> <li>Removing all construction related waste offsite in a manner that meets all authority requirements.</li> </ul>

## EDUCATION

Building management is responsible for creating and managing the waste management education process.

Educational material encouraging the correct separation of garbage and recycling items must be provided to each tenant to ensure the correct disposal of waste, including bulky goods (old furniture, large discarded items, etc.) It is recommended that information is provided in multiple languages to support correct practises and minimise the possibility of contamination in the collective waste bins.

## LIMITATIONS

The purpose of this report is to document a Waste Management Plan (WMP) as part of a development application and is supplied by Elephants Foot Recycling Solutions (EFRS) with the following limitations:

- Drawings, estimates and information contained in this waste management plan have been prepared by analysing the information, plans and documents supplied by the client, and third parties including Council and government information. The assumptions based on the information contained in the WMP is outside the control of EFRS;
- the figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the building managements approach to educating customers and tenants regarding waste management operations and responsibilities;
- the building manager will make adjustments as required based on actual waste volumes (if waste is greater than estimated) and increase the number of bins and collections accordingly;
- the report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures;
- the report has been prepared with all due care however no assurance or representation is made that the WMP reflects the actual outcome and EFRS will not be liable to you for plans or outcomes that are not suitable for your purpose, whether as a result of incorrect or unsuitable information or otherwise;
- EFRS offer no warranty or representation of accuracy or reliability of the WMP unless specifically stated;
- any manual handling equipment recommended should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply;
- Design of waste management equipment and systems must be approved by the supplier.

## CRICKET NSW CENTRE OF EXCELLENCE WASTE PLAN

The NSW EPA *Better Practice Guide for Resource Recovery* (2019) has been referenced to calculate the total number of bins required for the centre of excellence sporting facilities. Calculations are based on generic figures; waste generation rates may differ according to the tenants' waste management practice.

### ESTIMATED WASTE VOLUMES AND PROVISIONS

The following table shows the estimated volume (L) of garbage and recycling generated by the development. A seven-day operating week has been assumed.

Table 2: Calculated Waste Generation

Building	GFA (m <sup>2</sup> )	Garbage Generation Rate (L/100m <sup>2</sup> /day)	Generated Garbage (L/week)	Recycling Generation Rate (L/100m <sup>2</sup> /day)	Generated Recycling (L/week)
Administration & High Performance	2240	20	3136	15	2352
Community Building	908	5	318	10	636
Community Building Café	42	100	294	120	353
Maintenance and Storage	595	5	208	10	417
Indoor Cricket Building	2495	5	873	10	1747
<b>TOTAL</b>	<b>6280</b>		<b>4829</b>		<b>5503</b>
Collections & Equipment	Bin Size (L)		660	Bin Size (L)	
	Collections per Week		3	Collections per Week	
	No. Bins Required		3	No. Bins Required	
Waste Rooms	Equipment		None		
	Storage Room		Approx. 20sqm		

## WASTE MANAGEMENT

### OFFICE & RECEPTION AREAS

Typically, bins for paper or general waste are positioned next to each workers desk or workstation. One or both of these bins are emptied by contract cleaners. The cleaners circulate around the workplace after normal office hours and also perform other cleaning tasks, generally vacuuming and cleaning toilets. Bins for general waste and recyclables are also located centrally in each office, generally in the kitchen area and printer room.

Cleaners empty the bins into bags which they transport around the office/s in a cart which is also used to store cleaning products, spare bags, PPE and consumables.

Bags of garbage and/or recycling are placed in a central location by the cleaners (often outside the goods lift/s) and transported to the collection bins by another cleaner.

### GYM AREAS, CHANGING FACILITIES & PRACTICE PITCHES

Similar to the office areas, receptacles for both waste and recycling will be located at regular intervals throughout the various gym areas, changing facilities and practice pitches.

As is common practice, it is expected that the contract cleaners will circulate around these areas after ours and remove bagged waste and comingled recycling. This will be deposited into the designated cleaning cart and transported to the main waste room where it will be transferred to the relevant MGB for collection.

## OPERATIONAL WASTE MANAGEMENT PLAN

### CAFE

Staff at the café in the community building will be responsible for their own storage of garbage and recycling back of house (BOH).

Food handling for food cooked or prepared, served and consumed on site will produce a typical waste composition of food scraps from plates, packaging waste and some plastics.

Cardboard is a major component of the waste generated by cafes/restaurants. All cardboard should be flattened (to save bin space), placed in and collected from bulk bins. Whilst cardboard is bulky, it is generally lightweight however it can be contaminated with food or liquid which makes it unsuitable for recycling.

On completion of each trading day or as required, nominated staff/cleaners will transport their garbage and recycling to the main waste room off the community building and place garbage and recycling into the appropriate collection bins.

To ensure the proper management and disposal of waste, tenants must be made aware of the following practices:

- all garbage should be bagged and garbage bins should be plastic lined;
- bagging of recyclables is not permitted;
- all interim waste storage is located BOH during operations;
- individual recycling programs are recommended for retailers to ensure commingled recycling is correctly separated;
- any food and beverage tenant will make arrangements for storing used and unused cooking oil in a bunded storage area;
- the operator will organise grease interceptor trap servicing;
- a suitable storage area needs to be provided and effectively bunded for chemicals, pesticides and cleaning products;
- dry basket arrestors need to be provided to the floor wastes in the food preparation and waste storage areas; and
- all flattened cardboard will be collected and removed to the waste room recycling MGB

Note: It is the responsibility of the building manager to monitor the number of bins required for the development. As waste volumes may change according to the development's management, customer base and retail tenancy attitudes to waste disposal and recycling, bin numbers and sizes may need to be altered to suit the building operation. Seasonal peak periods i.e. public and school holidays should also be considered.

### SPORTS SCIENCE AND SPORTS MEDICINE FACILITIES

The site's medical facilities will have dedicated medical waste bins supplied as per the medical waste contractor's recommendations for the site. Waste from out-of-date and partly used medicines, infectious medical wastes, hazardous wastes and radioactive wastes must be stored and disposed of according to specific industry-based regulations. Correct segregation and containment of all wastes is required under the Waste Act.

Medical waste bins will be collected directly from their point of operation by the appointed contractor on a wheel in/wheel out basis and replacement bins provided on a scheduled collection frequency. A compatible key for the dedicated waste storage areas may need to be provided to the waste contractor.

## OPERATIONAL WASTE MANAGEMENT PLAN

*Table 3: Storage and Collection Requirements for Medical Waste*

Area	Location
Storage	An EPA licence may be required to store Hazardous Wastes. Storage areas are to be free from odour and must discourage the harbourage of vermin. Health Care Facilities must provide an enclosed structure such as a shed, garage, cage, fenced area or separate loading bay to store waste. The holding area should be located away from food and clean storage areas, it must not be accessible to the public, have a lockable door and rigid impervious flooring. Clean up facilities, spills kits, appropriate drainage and bunding should be provided. Where wastes are stored in bins the bin must be locked and a specific area, with adequate drainage, for washing equipment should be designated
Containers	All containers of medical waste to be stored in a secure location. Loads contained in MGBs and trolleys should be less than 55kgs and bins must be colour coded and marked in accordance with the Waste Management Guidelines for Health Care Facilities
Spillage	Ensure all necessary equipment required to clean and disinfect the area in case of accidental spillage is easily available and accessible. It is essential that personnel involved in spill management receive education and training in emergency procedures and handling requirements. Spill kits that have been used should be disposed of with the type of waste that has been cleaned up, eg used cytotoxic spill kits should be disposed of with cytotoxic waste
Mixed waste	Any waste mixed with medical waste must be treated as medical waste
Sharps	Needles, syringes and surgical instruments must be handled so the disposal of these items does not incorporate cutting, bending or any other manipulation that could generate aerosols or splatter contaminated fluids. All sharps containers should be assessed for compliance with the current NSW Health Infection Control Policy and the relevant Australian Standard
Collections	Medical waste shall remain within the storage areas and only be moved during collections. Collections will be performed by a transporter licensed by the EPA to collect and transport

### COMMON AREAS

The circulation and outdoor areas will feature intermittent public place waste bins as required. These will be emptied periodically by the contract cleaners. As waste generated in these areas is expected to be minimal, this has been exempted from the waste calculations.

Any staff tea points will be supplied with a dedicated commingled MGB for the collection of all recyclable glass, aluminium, steel and plastic items. Staff will be responsible for sorting this material and allocating recyclables into the correct collection facility.

Washroom facilities should be supplied with collection bins for paper towels (if used). Sanitary bins for female restroom facilities must also be arranged with an appropriate contractor.

### WASHROOM FACILITIES

Washroom facilities in retail and staff areas should be supplied with collection bins for paper towels (if used). Sanitary bins for female restroom facilities must also be arranged with an appropriate contractor.

Building management will monitor use and ensure waste bins are exchanged and cleaned.

### OTHER WASTE STREAMS

Tenants are required make arrangements for the disposal and recycling of specialised waste (toner cartridges, batteries, etc.). Disposal of hard, electronic, liquid waste and any detox (paint/chemicals) can be organised with the assistance of the building management/cleaners.

## MOVEMENT AND TRANSPORTATION OF BINS

The building manager/waste caretaker is responsible for any transportation of bins from their designated operational locations to the main waste room prior to scheduled collection times and returning them once emptied to resume operational use.

Transfer of waste and all bin movements require minimal manual handling; the operator must assess manual handling risks and provide any relevant documentation to building management.

If required, the developer should contact a bin-tug, trailer or tractor consultant to provide equipment recommendations. Examples of motorised bin moving equipment can be found in APPENDIX B.4 and APPENDIX B.5.

Bins may have to be fitted with hitches to enable the simultaneous transportation of multiple bins to the collection area. Council must be informed of any hitch attachments required to be installed on bins.

## COLLECTION OF WASTE

All waste generated by this development will be collected by private contractor to an agreed schedule (this report assumes three-times-weekly collections).

Prior to collections. The building manager/caretaker will be responsible for transferring bins from the interim waste room at the maintenance building to the main waste room at the community building. It is recommended that a bin mover be used when transferring bins over significant distances or up inclines.

On collection days, the contractor's vehicle will enter the site from Silverwater Road and pull up adjacent to the main waste room at the community building. The bins will be serviced from this location, directly from the waste room.

Once servicing is complete, the vehicle will leave the site in a forward-facing direction via the same route.

## COLLECTION AREA

It is Elephant Foot's understanding that the collection areas have been reviewed by a traffic consultant to confirm the swept paths for waste collections, access and egress.

## INSTALLATION EQUIPMENT AND DESIGN

### EQUIPMENT SUMMARY

Table 4: Equipment Summary

Component	Part	Qty	Notes
Equipment	Suitable Bin Moving Equipment	N/A	Optional (See APPENDIX B.4 for Typical Bin Mover)

## WASTE ROOM AREAS

The areas allocated for waste storage and collections are detailed in Table 5 below. The areas provided are estimates only. Final areas will depend upon room and bin layouts.

Table 5: Waste Room Areas

Location	Waste Room Type	Equipment	Allocated Area (m <sup>2</sup> )
Community Building	Main Waste Holding/Collection Room	3 x 660L MGBs (Garbage) 3 x 660L MGBs (Comingled Recycling)	20
Maintenance Building	Interim Waste Room	1 x 660L MGBs (Garbage) 1 x 660L MGBs (Comingled Recycling)	5

Note: Any requirement for increasing storage capacity may be met by increasing the frequency of waste collections.



## GARBAGE ROOMS

### CONSTRUCTION REQUIREMENTS

The garbage room will be required to contain the following facilities to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area:

- waste room floor to be sealed with a two pack epoxy;
- waste room walls and floor surface is flat and even;
- all corners coved and sealed 100mm up, this is to eliminate build-up of dirt;
- a cold water facility with hose cock must be provided for washing the bins;
- any waste water discharge from bin washing must be drained to sewer in accordance with the relevant water board. (Sydney Water);
- tap height of 1.6m;
- storm water access preventatives (grate);
- all walls painted with light colour and washable paint;
- equipment electric outlets to be installed 1700mm above floor levels;
- the room must be mechanically ventilated;
- light switch installed at height of 1.6m;
- waste rooms must be well lit (sensor lighting recommended);
- optional automatic odour and pest control system installed to eliminate all pest types and assist with odour reduction – this process generally takes place at building handover – building management make the decision to install;
- if 660L or 1100L bins are utilised, 2 x 820mm (minimum) door leafs must be used;
- all personnel doors are hinged, lockable and self-closing;
- waste collection area must hold all bins – bin movements should be with ease of access;
- conform to the Building Code of Australia, Australian Standards and local laws; and
- childproofing and public/operator safety shall be assessed and ensured

### SIGNAGE

The building manager/caretaker is responsible for waste room signage including safety signage (see *APPENDIX B.2*). Appropriate signage must be prominently displayed on walls and above all bins, clearly stating what type of waste or recyclables is to be placed in the bin underneath.

### VENTILATION

Waste and recycling rooms must have their own exhaust ventilation system either;

- Mechanically - exhausting at a rate of 5L/m<sup>2</sup> floor area, with a minimum rate of 100L/s minimum; or
- Naturally - permanent, unobstructed, and opening direct to the external air, not less than one-twentieth (1/20) of the floor area

Mechanical exhaust systems shall comply with AS1668 and not cause any inconvenience, noise or odour problem.

## USEFUL CONTACTS

Elephants Foot Recycling Solutions does not warrant or make representation for goods or services provided by suppliers.

### **CITY OF PARRAMATTA CUSTOMER SERVICE**

Phone: (02) 9806 5050

Email: [council@cityofparramatta.nsw.gov.au](mailto:council@cityofparramatta.nsw.gov.au)

### **SULO MGB** (MGB, Public Place Bins, Tugs and Bin Hitches)

Phone: 1300 364 388

### **CLOSED LOOP** (Organic Dehydrator)

Phone: 02 9339 9801

### **ELECTRODRIVE** (Bin Mover)

Phone: 1800 333 002

Email: [sales@electrodrive.com.au](mailto:sales@electrodrive.com.au)

### **RUD** (Public Place Bins, Recycling Bins)

Phone: 07 3712 8000

Email: [Info@rud.com.au](mailto:Info@rud.com.au)

### **CAPITAL CITY WASTE SERVICES** (Private Waste Services Provider)

Phone: 02 9359 9999

### **REMONDIS** (Private Waste Services Provider)

Phone: 13 73 73

### **SITA ENVIRONMENTAL** (Private Waste Services Provider)

Phone: 13 13 35

### **NATIONAL ASSOCIATION OF CHARITABLE RECYCLING ORGANISATIONS INC.** (NACRO)

Phone: 03 9429 9884

Email: [information@nacro.org.au](mailto:information@nacro.org.au)

### **PURIFYING SOLUTIONS** (Odour Control)

Phone: 1300 636 877

Email: [sales@purifyingsolutions.com.au](mailto:sales@purifyingsolutions.com.au)

### **MOVEXX** (Bin Movers)

Phone: 1300 763 444

### **AUSCOL** (Recycling Oils & Animal Fats)

Phone: 1800 629 476

### **KOMPACT EQUIPMENT** (Equipment & Servicing Provider)

Phone: 1300 566 722

Email: [info@kompactequipment.com.au](mailto:info@kompactequipment.com.au)

### **ELEPHANTS FOOT RECYCLING SOLUTIONS** (Chutes, Compactors & eDiverter Systems)

44 – 46 Gibson Avenue

Padstow NSW 2211

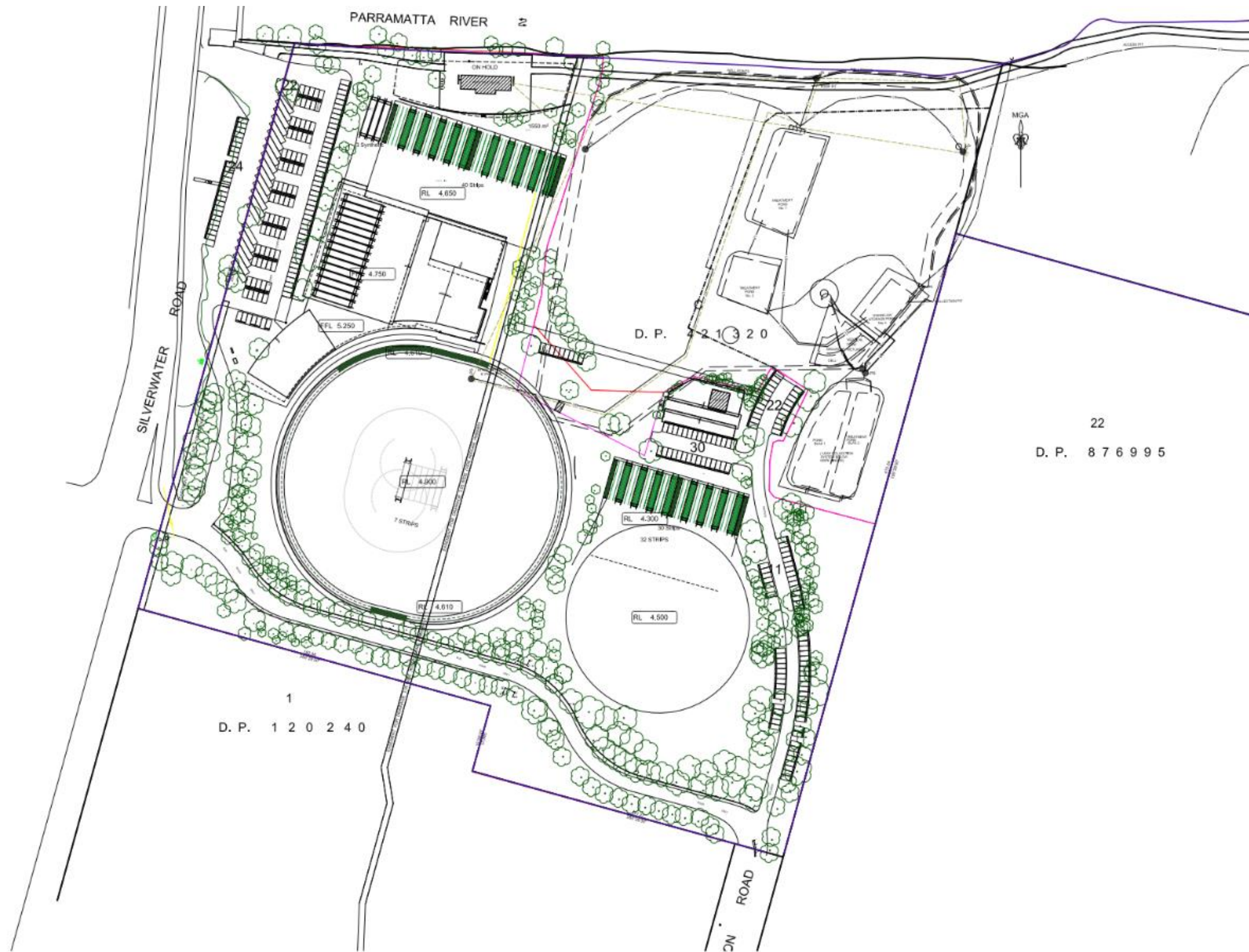
Phone: 1300 434 374

Email: [wmp@elephantsfoot.com.au](mailto:wmp@elephantsfoot.com.au)

## APPENDICES

### APPENDIX A ARCHITECTURAL DRAWING EXCERPTS

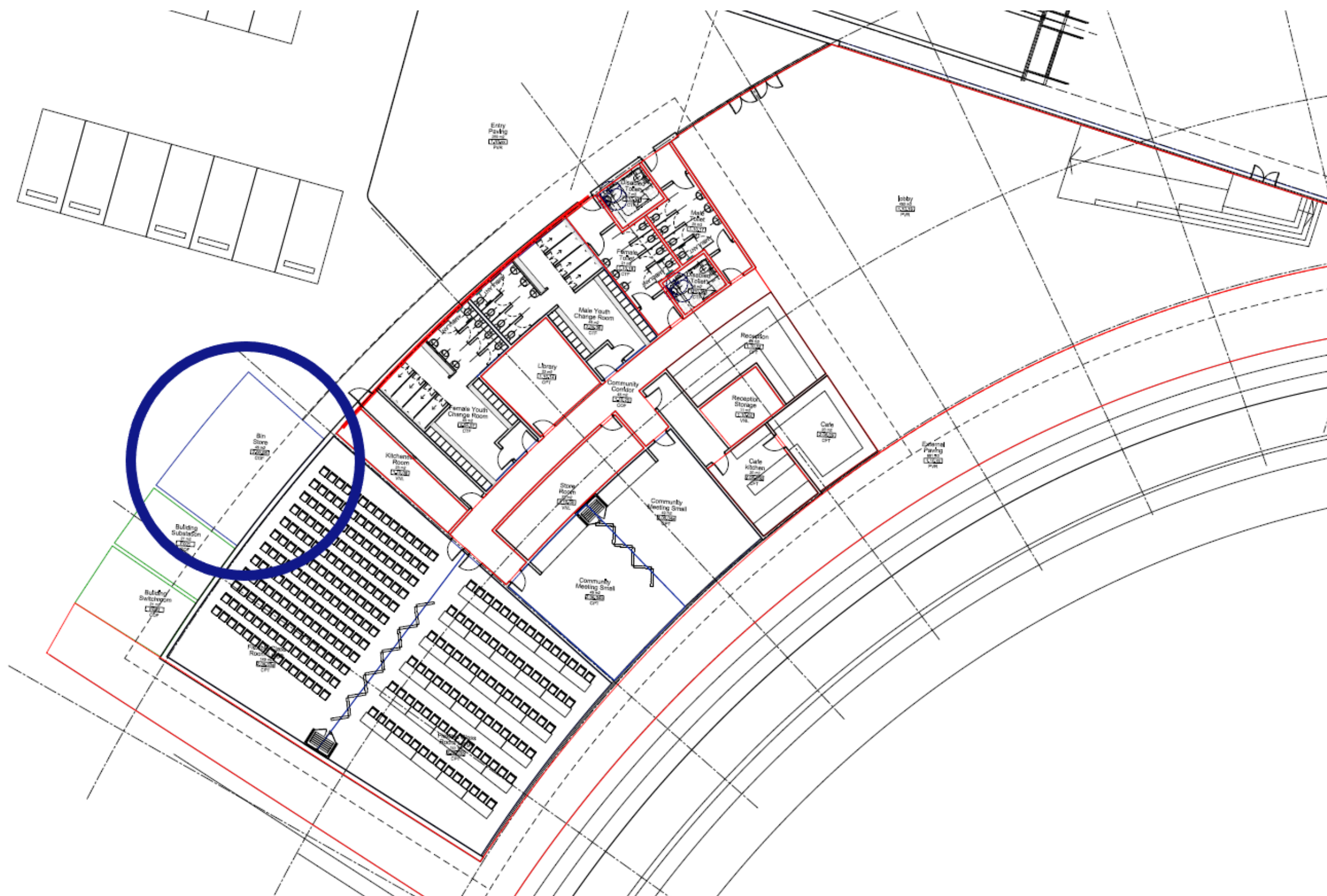
#### APPENDIX A.1 SITE PLAN



Source: Cox Architecture, Drawing No. a-mp-cnsw-ve3, Rev.1, 20/06/19 – Site Plan



APPENDIX A.2 WASTE ROOM/COLLECTION AREA



Source: Cox Architecture, Drawing No. A-FP-GA-00-VE3, Rev.1, 25/07/19 – Level Ground General Arrangement Plan

## OPERATIONAL WASTE MANAGEMENT PLAN

### APPENDIX B PRIMARY WASTE MANAGEMENT PROVISIONS

#### APPENDIX B.1 TYPICAL BIN SPECIFICATIONS

The most common bin sizes are provided below, although not all sizes are shown. These dimensions are a guide only and differ slightly between manufacturers.

Average dimension ranges for two-wheel mobile bins



Wheelie bin

Bin capacity	80L	120L	140L	240L	360L
Height (mm)	870	940	1065	1080	1100
Depth (mm)	530	530	540	735	820
Width (mm)	450	485	500	580	600
Approximate footprint (m <sup>2</sup> )	0.24	0.26–0.33	0.27–0.33	0.41–0.43	0.49
Approximate weight (kg)	8.5	9.5	10.4	15.5	23
Approximate maximum load (kg)	32	48	56	96	Not known

Sources include Sulo, Single Waste, Cleanaway, SUEZ, just wheelie bins and Perth Waste for two-wheel mobile bins

Average dimension ranges for four-wheel bulk bins



Dome or flat lid container

Bin capacity	660L	770L	1100L	1300L	1700L
Height (mm)	1250	1425	1470	1480	1470
Depth (mm)	850	1100	1245	1250	1250
Width (mm)	1370	1370	1370	1770	1770
Approx footprint (m <sup>2</sup> )	0.86–1.16	1.51	1.33–1.74	2.21	2.21
Approx weight (kg)	45	Not known	65	Not known	Not known
Approx maximum load (kg)	310	Not known	440	Not known	Not known

Sources include Sulo, Signal Waste, Cleanaway, SUEZ, Just Wheelie Bins and Perth Waste

Average dimension ranges for bulk bins over 1700L in capacity



Bulk bins greater than 1700L

Bin capacity)	1m <sup>3</sup>	1.5m <sup>3</sup>	2m <sup>3</sup>	3m <sup>3</sup>	4.5m <sup>3</sup>	6m <sup>3</sup>
Height (mm)	1000	910–1250	865–1000	1020–1580	1440–2014	1650
Depth (mm)	1000	905–1000	1300–1400	1470–1700	1605–1900	1900
Width (mm)	1400	1805–2010	1830–2000	1400–2010	1800–2010	2000
Approximate footprint (m <sup>2</sup> )	1.4	1.63–2.01	2.4–2.8	2.1–3.4	2.9–3.8	3.8

Sources include TORO Waste Equipment, SUEZ, Signal Waste, Perth Waste and ACT Industrial

Source: New South Wales Environmental Protection Authority *Better Practice Guide for Resource Recovery* (2019)

## **APPENDIX B.2 SIGNAGE FOR WASTE & RECYCLING BINS**

### **Waste Signs**

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the EPA (Environmental Protection Authority).

Examples of waste wall posters (EPA supplied)



Examples of bin lid stickers (EPA supplied)



### **Problem Waste Signs**

The EPA has also produced a range of images and signs that can be used for problem wastes, such as fluoro globes and tubes, household and car batteries, e-waste and smoke detectors. To access these resources, contact the NSW EPA. Some examples are shown below.



### **Safety Signs**

The use of safety signs for waste resource recovery rooms must comply with *AS1319 Safety signs for occupational environments*. Safety signs must be used to regulate and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Suitable signs should be decided for each development as required.

Example safety signs



Source: New South Wales Environmental Protection Authority *Better Practice Guide for Resource Recovery* (2019)

## APPENDIX B.3 TYPICAL COLLECTION VEHICLE INFORMATION

Australian Standards for turning circles for medium and heavy rigid class vehicles

Vehicle class	Overall length (m)	Design width (m)	Design turning radius (m)	Swept circle (m)	Clearance (travel) height (m)
Medium rigid vehicle	8.80	2.5	10.0	21.6	4.5
Heavy rigid vehicle	12.5	2.5	12.5	27.8	4.5

Source: New South Wales Environmental Protection Authority *Better Practice Guide for Resource Recovery* (2019)



## APPENDIX B.4 TYPICAL MOTORISED BIN TUG



### Typical applications:

- Move trolleys, waste bin trailers and 660/1100L bins up and down a ramp incline.
- Quiet, smooth operation with zero emissions and simple to use, no driver's licence required
- Suitable for:
  - High rise building & apartment basements
  - Large factories & warehouse with sloped ground
  - Caravan parks & other large outdoor areas

### Features:

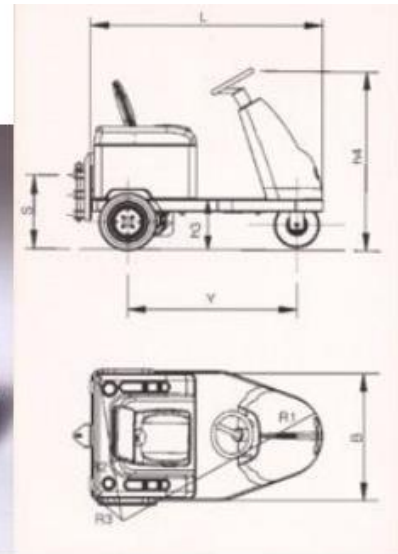
- 1 tonne tow capacity of inclines up to 8 degrees
- 500kg tow capacity if inclines up to 14 degrees
- CE Compliant
- 4.5 km/h max speed
- 2 x 80amp batteries – includes charger
- Powerful transaxle
- Hitch to suit 660L bins

### Safety Features:

- Intuitive paddle lever control
- Stops and repels the unit if activated when reversing.
- Site assessment recommended to assess ramp incline steepness (*See Useful Contacts*)




**APPENDIX B.5 TYPICAL SEATED BIN MOVER**



		UNIT M.	BULL 2	BULL 4
Manufacturer	DEC			
Model	BULL			
Platform loading cap.	Nominal capacity	kg	-----	-----
Pull capacity	Pull nominal capacity	kg	2000	4000
Power type	Electric - endothermic		electric	electric
Control type	Standing / seated thiller / steer		seated / steer	seated / steer
Tyres	Pn=pneum. Se=superelastic		Pn	Pn
Wheels	N. front/rear - x drive	n.	1/2X	1/2X
Platform dimensions	L x B (lengh x width)	mm	-----	-----
Platform hight	h6 = unload clearence	mm	-----	-----
Overall dimensions	L = lenght	mm	1500	1600
	B = width	mm	900	930
	h1 = foot leve	mm	1820	1960
	h3 = Seat height	mm	310	340
	h4 = Steer height	mm	1250	1330
Turning radius	R1 = front min. external	mm	1400	1500
	R2 = rear min. external	mm	1000	1000
	R3 = front min. internal	mm	400	400
Aisle width	A = 180° turn	mm	2200	2300
Tow hook height	s = center from ground	mm	220-350-490	240-380-520


## APPENDIX C SECONDARY WASTE MANAGEMENT PROVISIONS

### APPENDIX C.1 COOKING OIL CONTAINERS




[Home](#)
[About](#)
[Services](#)
[Our Parent Company](#)
[Contact](#)

## The RIGHT WAY for Cooking Oil Collection Systems




**Drums 205L**



**Pour in Bulk Tank**


[View Brochure](#)




**Oil Kaddy System**

[View Brochure](#)

- Collection Service
- Collection Systems**
- Recycling & Environment
- Safety
- Fresh Oil (W4 Only)



**Eco Systems**

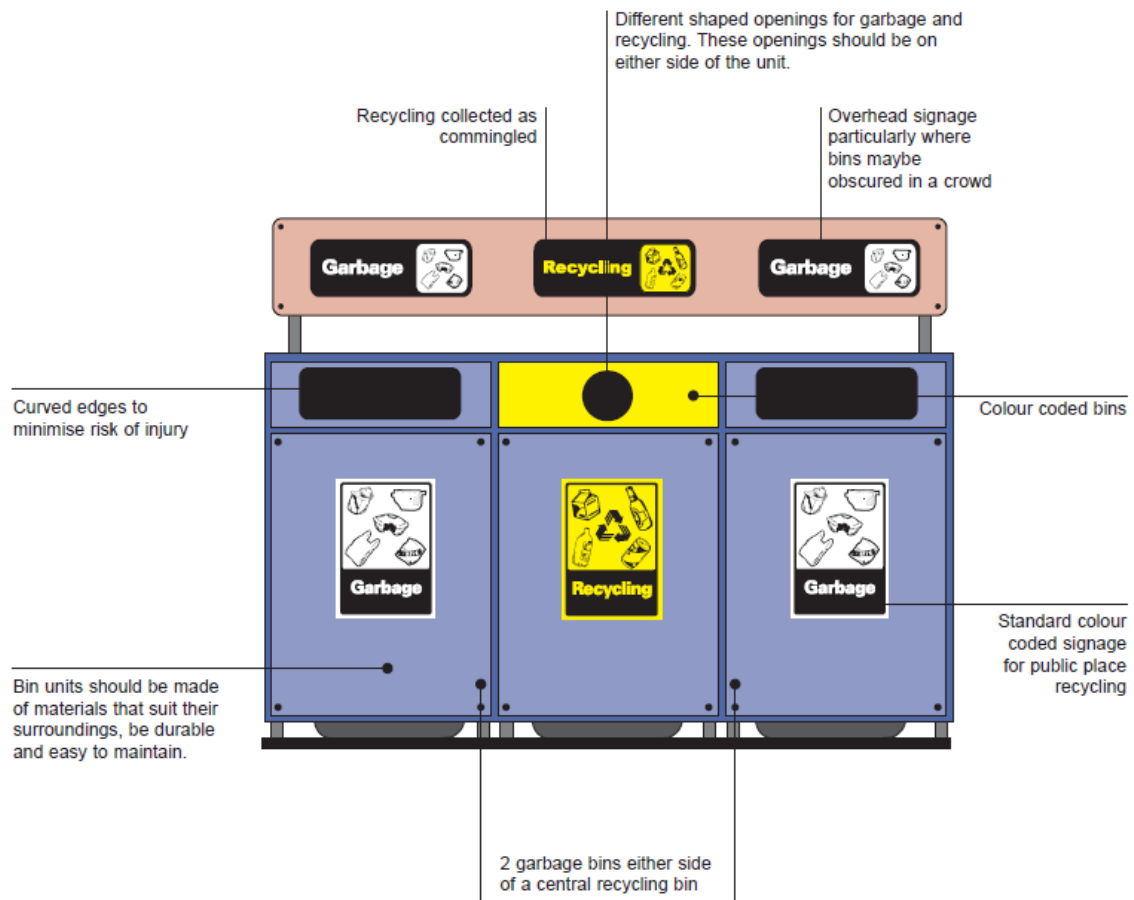


**Direct-Connect to Fryer**

## APPENDIX C.2 TYPICAL BACK OF HOUSE BINS



### APPENDIX C.3 TYPICAL PUBLIC PLACE WASTE BINS



Source: *Department of Environment and Conservation (NSW) Better Practice Guide for Public Place Recycling 2005*