ELEPHANTS FOOT Consulting

McCleverty Crt, Cotswold Hills, QLD

Standalone Dwellings Development

OPERATIONAL WASTE MANAGEMENT PLAN

13/11/2025

Report No. 707997

Revision C

Client

Living Gems Developments Pty Ltd

Architect

JAREDPOOLDESIGN

www.jpd.com.au

ELEPHANTS FOOT GROUP

Consulting
an Elephants Foot Company

ABN: 47 644 736 514
ELEPHANTS FOOT CONSULTING. PTY LTD
1300 456 374 | consulting@elephantsfoot.com.au
www.elephantsfoot.com.au

REVISION REFERENCE

Revision	Date	Prepared by	Reviewed by	Description
A	1/09/2025	E. Abetian	S. Lee	Draft
B	5/11/2025	E. Abetian	J. Parker	Amendment
C	13/11/2025	J. Parker	E. Saidi	Amendment

TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF TABLES

GLOSSARY OF ABBREVIATIONS AND TERMS

TERM	DESCRIPTION
Bin-Carting Route	Travel path for transporting bins from their allocated storage location to the nominated collection point
Bulk Bins	Containers with a capacity greater than 1100L designed to be collected by a front-loading vehicle
Bulky Waste	Recycling items that are too large to be deposited into bins, including furniture, whitegoods, electronics and mattresses
Collection Area/Point	Designated area or point where bins are loaded onto the collection vehicle for servicing
DA	Development Application
DCP	Development Control Plan
EPA	Environment Protect Authority
FOGO	Food Organics and Garden Organics
General Waste	All non-recyclable and non-hazardous waste that is sent to landfill
HRV	Heavy Rigid Vehicle
Kerbside Collection	A collection arrangement whereby bins are presented in a single row along the kerb and serviced by a collection vehicle on the street.
L	Litre
LEP	Local Environmental Plan
Mobile Bins	Containers with a capacity up to and including 1100L designed to be collected by a rear-loading vehicle
MRV	Medium Rigid Vehicle
Owners Corporation	An organisation or group of persons that is identified by a particular name and that acts, or may act, as an entity
Recycling	Waste stream that combines all recycling, including comingled recycling, paper/cardboard and metals.
Source Separation Receptacles	Communal containers used throughout the development for the day-to-day disposal of different waste streams
SRV	Small Rigid Vehicle
Waste Stream	A classification used to describe waste of a particular type (eg. food waste stream)
WHS	Workplace Health and Safety
Wheel-Out Wheel Back	A collection arrangement whereby a collection vehicle parks on the street and collection staff exit the vehicle to wheel each bin from a designated storage area to the vehicle for servicing and returns them upon completion.

1.0 ACKNOWLEDGEMENT OF COUNTRY

Elephants Foot Consulting (EFC) acknowledges that every project we work on takes place on First Peoples land. We recognise Aboriginal and Torres Strait Islander People as Traditional Custodians of this land. We pay respect to ancestors and Elders, past and present.

2.0 INTRODUCTION

Elephants Foot Consulting (EFC) has been engaged to prepare the following Operational Waste Management Plan (OWMP) to satisfy the conditions of the Development Application Toowoomba Regional Council requires for the standalone dwellings development located at McCleverty Court, Cotswold Hills QLD.

Robust waste management strategies are required for new developments to support the design and sustainable performance of the building. It is EFC'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 and recycling provisions and procedures*** are established that will cater for potential changes during the operational phase of the development.

iii. ***Comply*** with all relevant council codes, policies, and guidelines.

To achieve these objectives, this OWMP identifies and details the following components:

- Waste streams expected to be generated onsite and anticipated volumes;
- Suitable bin sizes and quantities;
- Waste and recycling disposal procedures;
- Bin storage size estimations and equipment recommendations; and
- Waste collection strategies, locations and frequencies.

It is vital that this OWMP is integrated into the overall management of the building and is clearly communicated to all relevant stakeholders.

2.1 SCOPE OF REPORT

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

The waste management of the **construction** and **demolition** phases of the development are not addressed in this report. A construction and demolition WMP will need to be provided separately.

2.2 REPORT CONDITIONS

The purpose of this report is to document an OWMP as part of a development application, which is supplied by EFC with the following limitations:

- Drawings, estimates and information contained in this OWMP have been prepared by analysing the information, plans and documents supplied by the client and third parties including Council and other government agencies. The assumptions based on the information contained in the OWMP is outside the control of EFC,
- 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 management's approach to educating residents and tenants regarding waste management operations and responsibilities,
- The building manager will adjust waste management operations as required based on actual waste volumes (e.g. 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 is made that the OWMP reflects the actual outcome of the proposed waste facilities, services, and operations, and EFC will not be liable for plans or results that are not suitable for purpose due to incorrect or unsuitable information or otherwise,
- EFC offer no warranty or representation of accuracy or reliability of the OWMP unless specifically stated,
- Any manual handling equipment recommended in this OWMP should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply,
- Design of waste management chute equipment and systems must be approved by the supplier,
- EFC cannot be held accountable for late changes to the design after the OWMP has been submitted to Council,
- EFC will provide specifications and recommendations on bin access and travel paths within the OWMP, however it is the architect's responsibility to ensure the architectural drawings meet these provisions,
- EFC are not required to provide information on collection vehicle swept paths, head heights, internal manoeuvring or loading requirements. It is assumed this information will be provided by a traffic consultant,
- Council are subject to changing waste and recycling policies and requirements at their own discretion.

3.0 LEGISLATION & GUIDANCE

Waste management and resource recovery regulation in Australia is administered by the Australian Constitution, Commonwealth laws, and international agreements. State and territory governments maintain primary responsibility for controlling development and regulating waste. The following legislation has been enacted in Queensland, and provides the lawful underpinnings of this OWMP.

- QLD Environmental Protection Act 1994
- QLD Waste Reduction and Recycling Act 2011
- QLD Waste Reduction and Recycling Regulation 2023 (WRR Regulation)

At the local level, councils or Local Government Areas (LGAs) require OWMPs to be included in new development applications. This OWMP is specifically required by:

- Toowoomba Regional Planning Scheme 2012
- Toowoomba Regional Council Waste Management Strategy 2021

The primary purpose of a Development Control Plan (DCP) is to guide the planning process according to the aims of the corresponding local environmental plan (LEP). The DCP must be read in conjunction with the provisions of the relevant LEP.

Information provided in this OWMP comes from a wide range of waste management guidance at the local, state, and federal levels. The primary sources of guidance include:

- Toowoomba Regional Planning Scheme 2012
- Toowoomba Regional Council: Technical Guidelines for New Developments General Waste and Recyclable Waste Storage and Collections 2016
- QLD Waste Strategy 2025-2030
- QLD Waste Management and Resource Recovery Strategy 2018-2050
- QLD Waste Reduction and Recycling Plan 2022-2025
- Australia's National Waste Policy 2018

4.0 DEVELOPMENT OVERVIEW

The proposed development falls under the LGA of Toowoomba Regional Council, and consists of 294 dwellings and a Clubhouse with a total GFA of 2082m^2.

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

4.1 SITE LOCATION

The site is located at McCleverty Court, Cotswold Hills QLD as shown in Figure.1 (boundaries are indicative only). The site has frontages to Hermitage Road and Nugent Pinch Road with vehicle access via Nugent Pinch Road and McCleverty Court.

Figure 1: Site Location

Source: Google Maps 2025

5.0 STANDALONE DWELLINGS WASTE MANAGEMENT

The following section outlines best practice waste management for the standalone dwellings, including recommended bin quantities, disposal procedures and collection arrangements.

5.1 RESIDENTIAL BIN SUMMARY

Toowoomba regional council offers a three-bin service to all single residential dwellings consisting of separate bins for general waste, recycling and green waste.

The recommended number of bins per standalone dwelling is as follows:

General Waste:	1 x 240L bins collected **1 x weekly**
Recycling:	1 x 240L bins collected **1 x fortnightly**
Green Waste:	1 x 240L bins collected **1 x fortnightly**

On that basis, the total recommended number of bins for this development is as follows:

General Waste:	294 x 240L bins collected **1 x weekly**
Recycling:	294 x 240L bins collected **1 x fortnightly**
Green Waste:	294 x 240L bins collected **1 x fortnightly**

5.2 RESIDENTIAL WASTE DISPOSAL PROCEDURES

Residents will have access to an allocated storage area within their own dwelling capable of holding 2 x 30L receptacles for general waste and recycling. This is typically located within kitchen areas beneath the workbench.

Residents will also be provided with an external bin storage area for storage of individual 240L general waste, 240L recycling bins and 240L green waste bins. Bin storage areas are typically positioned in a courtyard or garage area on the ground level behind the building line of the standalone dwelling, or where it is screened and cannot be viewed from public areas.

Residents will be responsible for depositing their own bagged general waste into the general waste bin, unbagged recycling into the recycling bin.

Residents will also be responsible for maintaining their own bins, such as cleaning bins as required and arranging for broken bins to be replaced by council.

5.3 RESIDENTIAL COLLECTION PROCEDURES – PER PROPERTY KERBSIDE

Council will be engaged to collect the residential general waste, recycling and green waste in accordance with Council's collection schedule. This report assumes that general waste will be collected weekly, recycling fortnightly and green waste fortnightly.

The configuration of the internal road allows for kerbside collection for all single dwellings. Therefore, residents will be required to present their bins out the front of their property for collection

It is recommended that the site be able to accommodate an HRV per AS2890.2-2002.

On the night before nominated waste collection days, residents will move their own bins from the bin storage area to the nominated kerbside collection points. Residents are responsible for ensuring that bins are presented appropriately to kerbside, as per the following:

- Bins are to be presented one metre apart.
- Bins should be presented a distance from trees, telegraph poles, parked cars or other obstacles.
- Bin lids should open facing the road.
- Bin lids should be kept closed while situated on the kerb.
- Bins should not be overfilled or overflowing and must be under 70kg.

After the bins have been serviced, residents are responsible for returning the empty bins back to the bin storage area within their property, as soon as possible, on the same day as collection.

5.4 OTHER RESIDENTIAL WASTE MANAGEMENT CONSIDERATIONS

The following sections outline other waste management considerations for the standalone dwellings development.

5.4.1 RESIDENTIAL COMMON AREAS

Residential common areas will be supplied with suitably branded source separation receptacles where considered appropriate. Receptacles should be placed in convenient locations which are accessible to all residents. The building manager will monitor the capacity of these receptacle and empty contains into the central collection bins as required.

5.4.2 LANDSCAPED AREAS AND GARDEN ORGANICS

It is anticipated that common landscaped areas will generate green waste during maintenance. Green waste from common areas will be managed by the landscape maintenance contractors, who will remove the green waste from site during scheduled maintenance.

Residents will be provided with 240L green waste bins whereby they can dispose of their own unbagged green waste.

Acceptable green waste includes:

- Lawn clippings
- Pruned shrubs or trees
- Cut flowers
- Weeds (excluding priority weeds)
- Sticks, twigs and leaves
- Bark and branches no longer than 1m and 75mm in diameter

6.0 CLUBHOUSE WASTE MANAGEMENT

The following section outlines best practice waste management for the communal facilities, including waste generation estimates, waste disposal and collection procedures.

6.1 WASTE GENERATION ESTIMATES

In the absence of specific waste generation rates for clubhouse facilities within the Toowoomba Regional Council's Technical Guideline for New Developments, the NSW EPA's Better practice guide for resource recovery in residential developments 2019 has been referenced to calculate the total number of bins required for the anticipated tenants. Calculations are based on generic figures, and waste generation rates may differ according to the tenants' actual waste management practice. The waste and recycling generation rates from the NSW EPA's Better practice guide for resource recovery in residential developments 2019 have been adapted to reflect litres per 100m^2 per day.

The following table shows the estimated volume (L) of general waste and recyclables that will be generated by the communal facilities.

It is assumed that the facilities will share waste bins, the waste storage room, and the waste collection service. The following estimates are based on a seven-day operating week.

Table 1: Estimated General Waste and Recycling Volumes – Communal Facilities

Tenancy	Type	Floor Area (m²)	General Waste Generation Rate (L/100m²/day)	Generated General Waste (L/week)	Recycling Generation Rate (L/100m²/day)	Generated Recycling (L/week)
Clubhouse	Cultural & Recreational Services	2082	5	729	10	1457
TOTAL		**2082**		**729**		**1457**
Bins & Collections			General Waste Bin Size (L)	240	Recycling Bin Size (L)	240
			General Waste Bins per Day	0.4	Recycling Bins per Day	0.9
			General Waste Collections per Week	1	Recycling Collections per Week	1
			Total General Waste Bins Required	**4**	**Total Recycling Bins Required**	**7**

6.2 BIN SUMMARY

Based on the estimated waste and recycling volumes generated by the communal facilities, the recommended bin quantities and collection frequencies are as follows:

General Waste: 4 x 240L bins collected **1 x weekly**
Recycling: 7 x 240L bins collected **1 x weekly**

Bin sizes, quantities, and/or collection frequencies may be modified by the building manager once the proposed development is operational. Building management will be required to negotiate any changes to bins or collections with the collection service provider. Seasonal peak periods should also be considered.

6.3 WASTE DISPOSAL PROCEDURES

Residents using the communal facilities will dispose of their waste and recycling in conveniently located bins around the precinct (Clubhouse and Sports building).

On completion of each trading day or as required, nominated staff or contracted cleaners will transport all general waste and recyclables to the Clubhouse Bin Room and place into the appropriate collection bins.

6.4 WASTE COLLECTION PROCEDURES

A private waste contractor will be engaged to service the communal facilities waste and recycling bins per an agreed collection schedule. On the day of service, a private waste collection vehicle will enter the site and drive along the new internal roads to get to the communal facilities. The collection staff will then service the bins from the collection point (Clubhouse Bin Room).

Once the bins are serviced, the truck will then leave the site in forward direction onto the internal road and the staff will be responsible of returning the bins to their initial locations.

6.5 OTHER WASTE MANAGEMENT CONSIDERATIONS

Based on the types of tenancies anticipated for this development, the following waste management practices are recommended.

6.5.1 KITCHEN, OFFICE TEA ROOMS AND FOOD PREPARATION AREAS

Any food preparation area, including kitchens and office tea rooms will be provided with dedicated source separation bins including a general waste bin and a recycling bin. Cleaners or nominated staff will be responsible for monitoring these bins and emptying them as required.

6.5.2 WASHROOM FACILITIES

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.

6.5.3 PRINTING & PHOTOCOPYING ROOMS

It is recommended that rooms are areas designed for printing or photocopying be provided with an area for the interim storage of paper receptacles, as well as separate receptacles for used toner and/or printer cartridges for recycling. The cleaners or nominated staff are responsible for monitoring these receptacles and ensuring that items are collected and recycled by an appropriate contractor.

6.5.4 LIQUID WASTE

Liquid wastes as such cleaning products, chemicals, paints, solvents, and motor and cooking oil will be stored in a secure room and enclosed by a low wall intended to contain any liquid spillage or inundation to other areas. Liquid waste will be drained to a grease trap, in accordance with legislation and the requirements of State government authorities and agencies. Further information can be provided by the Services Consultant.

6.5.5 PROBLEM WASTE

The building manager is responsible for making arrangements for the disposal and recycling of problem waste streams with an appropriate contractor. Problem wastes cannot be placed in the general waste stream as they can have adverse impacts to human health and the environment if disposed of in landfill. Residents must liaise with the building manager when disposing of problem waste streams.

Problem waste streams include:

- Chemical Waste
- Liquid wastes
- Toner cartridges
- Lightbulbs
- eWaste
- Batteries

7.0 STAKEHOLDER ROLES & RESPONSIBILITIES

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

Table 2: Stakeholder Roles and Responsibilities

Roles	Responsibilities
Strata or Management	• Ensure all waste service providers submit monthly reports on all equipment movements and waste quantities/weights. • Organise internal waste audits/visual assessments on a regular basis • Purchase any on-going waste management equipment or maintenance of equipment once building is operational; and • Manage any non-compliances/complaints reported through waste audits.
Residents	• Dispose of all general waste and recycling in the allocated bins provided. • Ensure adequate separation of general waste and recycling. • Clean and transport bins as required. • Compliance with the provisions of Council and the OWMP. • Clean and transport bins as required. • Organising bulky goods collection when required. • Investigating and ensuring prompt clean-up of illegally dumped waste materials. • Preventing storm water pollution by taking necessary precautions (securing bin rooms, preventing overfilling of bins);
Waste Collection Contractor	• Provide a reliable and appropriate waste collection service. • Provide feedback to building managers/residents regarding contamination of recyclables; and • Work with building managers to customise waste systems where possible.
Gardening/ Landscaping Contractor	• Remove all garden organic waste generated during gardening maintenance activities for recycling at an offsite location.

8.0 SOURCE SEPARATION

Better practice waste management includes the avoidance, reuse, and recovery of unwanted items, which can be achieved through source separation. The table below outlines what is typically included in various waste streams and how they can be managed. Refer to your local council for a list of accepted materials. Planet Ark can be accessed online to find other facilities that recover unwanted items.

Table 3: Operational Waste Streams

Waste Stream	Description	Typical Destination	Waste Stream Management
General Waste	The remaining portion of the waste stream that is not recovered for re-use, processing, or recycling. May include soft plastics, food scraps, polystyrene, etc.	Landfill	General waste should be bagged before placing in in designated general waste bin.
Recycling	A mixture of items that are commonly recycled usually segregated through a MRF. Typically include food and beverage containers (e.g. aluminium, glass, steel, hard plastics, cartons). Also included cardboard and paper products.	Resource Recovery Centre	Recycling must not be bagged and instead should be placed loosely in the designated recycling bin.
Garden Organics	Green waste consists of unwanted organic materials that are easily biodegradable and/or compostable (e.g. lawn clippings, branches)	Resource Recovery Centre	Landscape Maintenance Contractors will remove the green waste from site during scheduled maintenance.
Electronic Waste	Discarded e-waste, electronic components and materials such as computers, mobile phones, keyboards, etc.	Resource Recovery Centre	Residents to arrange for recycling of their own e-waste as required.
Bulky Waste Items	Items that are to too large to place into general rubbish collection. This includes disused and/or broken furniture, mattresses, white goods, etc.	Resource Recovery Centre or Landfill	Residents arrange with Council for removal.
Sanitary Waste	Feminine hygiene waste generated from female bathrooms.	Incineration or Landfill	Sanitary bins are serviced by sanitary waste contractor.
Other	Other recyclable items that require special recovery may include ink cartridges, batteries, chemical waste, fluorescent tubes, etc.	Resource Recovery Facility	Residents arrange for collection by appropriate recycling services when required.

9.0 EDUCATION

Educational material encouraging correct separation of general waste, recycling and green waste must be provided to each resident. This should include the correct disposal process for bulky waste such as old furniture, large, discarded items, and other materials including electronic and chemical wastes. It is recommended that the building caretaker provide information in multiple languages to support correct behaviours.

Education and communication must be provided consistently on a regular basis to encourage behaviour change and account for transient building personnel such as new residents, tenants, or cleaning staff. Information should include:

- Scheduled general waste, recycling and green waste collection days;
- Descriptions of items accepted in the general waste, recycling and green waste streams (refer to Council guidance);
- How to dispose of bulky waste and any other items that are not general waste, recycling or green waste (refer to Council guidance);
- Residents' obligations to health and safety as well as building management; and
- How to prevent cross contamination among waste streams.

10.0 BIN MOVING PATHS

Residents will be responsible for the transportation of bins to the kerbside for collection, returning them to their property once emptied to resume use.

The routes along the bin moving path should.

- Allow for a continuous route that is wholly within the property boundary.
- Be free from obstruction and obstacles such as steps and kerbs.
- Be constructed of solid materials with a non-slip surface
- Be a minimum of 300mm wider than the largest bin used onsite.

If bins are moved manually, the route must not exceed a grade of 1:14

11.0 BIN AREAS

The areas allocated for bin storage and collection are detailed in the table below and are estimates only.

Table 4: Waste Room Areas

Waste Room Type	Equipment	Estimated Area Required (m^2)
Bin Storage Area (per dwelling)	1 x 240L bins (General Waste) 1 x 240L bins (Recycling) 1 x 240L bins (Green Waste)	3
Clubhouse Bin Room	4 x 240L bins (General Waste) 7 x 240L bins (Recycling)	10

The bin areas have been calculated based on equipment requirements and/or bin dimensions with an additional 70% of bin GFA factored in for manoeuvrability.

In addition, all doorways and passageways facilitating the movement of bins and/or bulky waste items must be at least 1500mm wide. The following table provides further waste room requirements.

Table 5: Waste Room Requirements

Waste Room Type	Waste Room Requirements
Bin Storage Area (each dwelling)	• Bins should be arranged so that all bins are accessible. Bins are not be placed in front another or in such a way as to restrict access to the other bins for use.
Waste Rooms	• In order to ensure staff safety, all bins should be arranged so they can be accessed without moving another bin

12.0 USEFUL CONTACTS

EFC does not warrant or make representation for goods or services provided by suppliers.

LOCAL COUNCIL

Toowoomba Regional Council Customer Service Centre	Ph: (61) 7 4688 6611	E: info@tr.qld.gov.au

PRIVATE WASTE COLLECTION PROVIDER

Capital City Waste Services	Ph: 02 9599 9999	E: service@ccws.net.au
Sydney Waste	Ph: 02 8661 0031	
Waste Clear	Ph: 1300 525 352	E: admin@wastecleart.com.au

BIN MOVING DEVICE SUPPLIERS

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au
Sitecraft	Ph: 1300 363 152	E: sales@sitecraft.com.au

BALER SUPPLIERS

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au

ORGANIC DIGESTERS AND DEHYDRATORS

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au
Waste Master	Ph: 1800 614 272	E: hello@wastemasterpacific.com.au

COOKING OIL CONTAINERS AND DISPOSAL

Cookers	Ph: 1300 882 299	E: info@cookers.com.au
Auscol	Ph: 1800 629 476	E: sales@auscol.com

ODOUR CONTROL

Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au

SOURCE SPERATION BINS

Method Recycling	Ph: 0499 890 455

BINS AND BIN EQUIPMENT

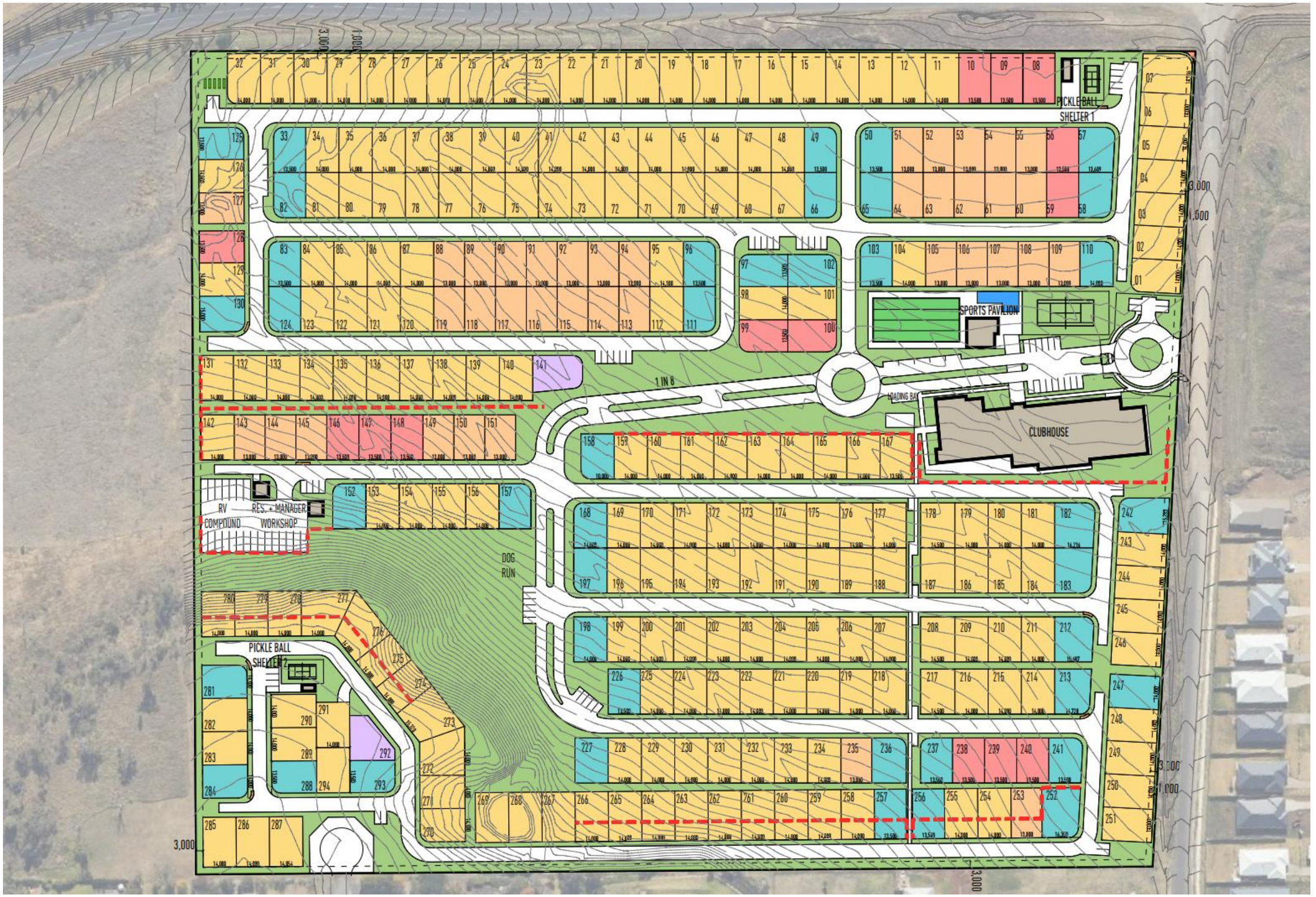
Elephants Foot Equipment	Ph: 1300 435 374	E: equipment@elephantsfoot.com.au
SULO	Ph: 1300 364 388	E: sulosales@pactgroup.com

CHUTES, COMPACTORS AND EDIVERTER SYSTEMS

Elephants Foot Chute Solutions	Ph: 1300 435 374	E: chutes@elephantsfoot.com.au

APPENDIX A: ARCHITECTURAL PLANS

APPENDIX: A.1 MASTER PLAN



Source: Jared Poole Design, Drawing Title BP1415/03.01

APPENDIX B: PRIMARY WASTE MANAGEMENT PROVISIONS

APPENDIX: B.1 TYPICAL BIN SPECIFICATIONS

Mobile bins

Mobile bins come in a variety of sizes and are designed for lifting and emptying by purpose-built equipment.

Mobile bins with capacities of up to 1700L must comply with *AS4123.6-2006 Mobile waste containers* which specifies standard sizes and sets out the colour designations for the bodies and lids of mobile waste containers indicating the type of materials they are used to collect.

The most common bin sizes are provided below, although not all sizes are shown. The dimensions are a guide only and differ slightly between manufacturers. Some bins have flat or domed lids and are used with different lifting devices. Refer to *AS4123.6-2006* for further details.

Table G1.1: 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^2)	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

Table G1.2: 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^2)	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

Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

APPENDIX: B.2 SIGNAGE FOR WASTE AND RECYCLING BINS

Waste signs

Signs and educational materials perform several functions including:

- informing residents why it is important to recover resources and protect the environment
- providing clear instructions on how to use the bins and services provided
- alerting people to any dangers or hazards within the bin storage areas.

All waste, recycling and organic bins should be Australian Standard colours and clearly and correctly labelled, such as by a sticker on the lid and/or the body of the bin.

Communal bin storage areas should be clearly signposted with signs outlining how to correctly separate waste into the bins provided. The local council responsible for waste services may be a good source of signs and posters and can advise on what signs are suitable.

Information on who to contact to find out more about the recycling and/or other resource recovery services in the building should also be displayed in communal areas, such as on a noticeboard.

The Planet Ark website also has resources available free of charge for use by businesses and councils. These signs can be found at businessrecycling.com.au/research/signage.cfm

Figure I1.1: Examples of waste wall posters (EPA supplied)

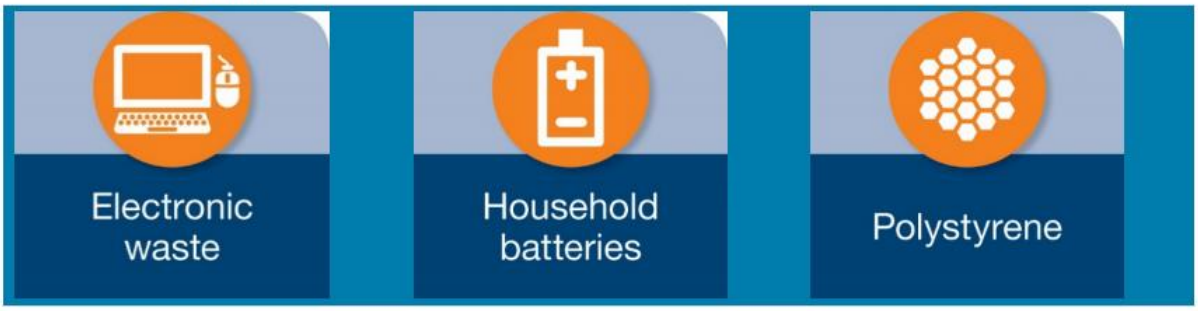
Figure I1.2: Examples of bin lid stickers (EPA supplied)

Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

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.

Figure I2.1: Problem waste signs



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.

Figure I3.1: Example safety signs

Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

APPENDIX: B.3 EXAMPLE COLLECTION VEHICLE INFORMATION

General

Appropriate heavy rigid vehicle standards should be incorporated into the road and street designs in new developments where onsite collections are proposed. Road and street designs must comply with relevant Acts, regulations, guidelines, and codes administered by Austroads, Standards Australia, NSW Roads and Maritime Services, WorkSafe NSW and any local council traffic requirements.

Applicants and building designers should consult with councils and other relevant authorities before designing new roads or streets and access points for waste collection vehicles to establish specific design requirements.

Table H4.1: 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: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

Large collection vehicles

Waste collection vehicles may be side-loading, rear-loading, front-lift-loading, hook or crane lift trucks. Vehicle dimensions vary by collection service, manufacturer, make and model. It is not possible to provide definitive dimensions, so architects and developers should consult with the local council and/or contractors.

The following characteristics represent typical collection vehicles and are provided for guidance only. Reference to *AS2890.2 Parking facilities: off-street commercial vehicle facilities* for detailed requirements, including vehicle dimensions, is recommended.

Table B2.1: Collection vehicle dimensions

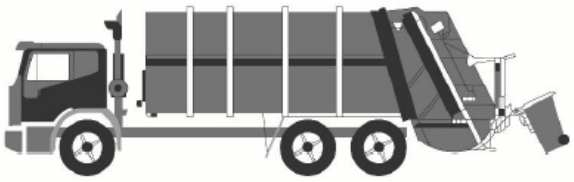
Vehicle type	Rear-loading	Side-loading*	Front-lift-loading	Hook truck	Crane truck
Length overall (m)	10.5	9.6	11.8	10.0	10.0
Width overall (m)	2.5	2.5	2.5	3.0	2.5
Travel height (m)	3.9	3.6	4.8	4.7	3.8
Operational height for loading (m)	3.9	4.2	6.5	3.0	8.75
Vehicle tare weight (t)	13.1	11.8	16.7	13.0	13.0
Maximum payload (t)	10.0	10.8	11.0	14.5	9.5
Turning circle (m)	25.0	21.4	25.0	25.0	18

* The maximum reach of a side arm is 3 m.

Sources: JJ Richards, SUEZ, MacDonald Johnson, Cleanaway, Garwood, Ros Roca, Bingo and Edbro. Figures shown represent the maximum dimensions for each vehicle type.

Rear-loading collection vehicles

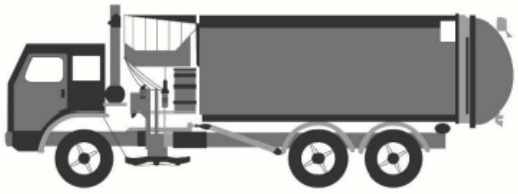
These vehicles are commonly used for domestic waste collections from MUDs and RFBs and sometimes for recycling. They can be used to collect waste stored in mobile bins or bulk bins, particularly where bins are not presented at the kerbside. They are also used for collecting bulky waste.



Rear-loading waste collection vehicle

Side-loading collection vehicles

This is the most commonly used vehicle for domestic waste, recycling and organics collections. It is only suitable for collecting mobile bins up to 360L in capacity.



Side-loading waste collection vehicle

Front-lift-loading collection vehicles

These vehicles are commonly used for collecting commercial and industrial waste. They can only collect specially designed front-lift bulk bins and not mobile bins.

Front-lift-loading waste collection vehicle

Small collection vehicles

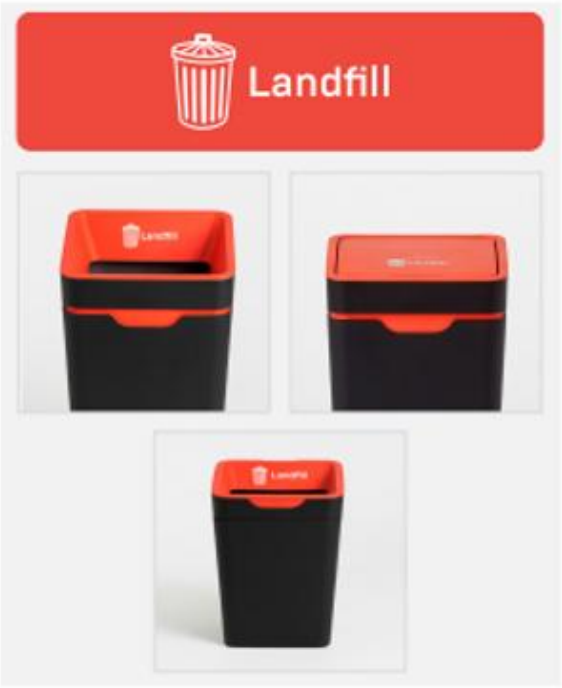
Typically, councils and their contractors operate with large collection vehicles (heavy rigid class vehicles) because they carry greater payloads and allow for more cost-effective collection services. Some councils, or their contractors, may have smaller collection vehicles in their fleet. Early discussion with the council is important to confirm this, but it should not be assumed that the council will have access to small collection vehicles.

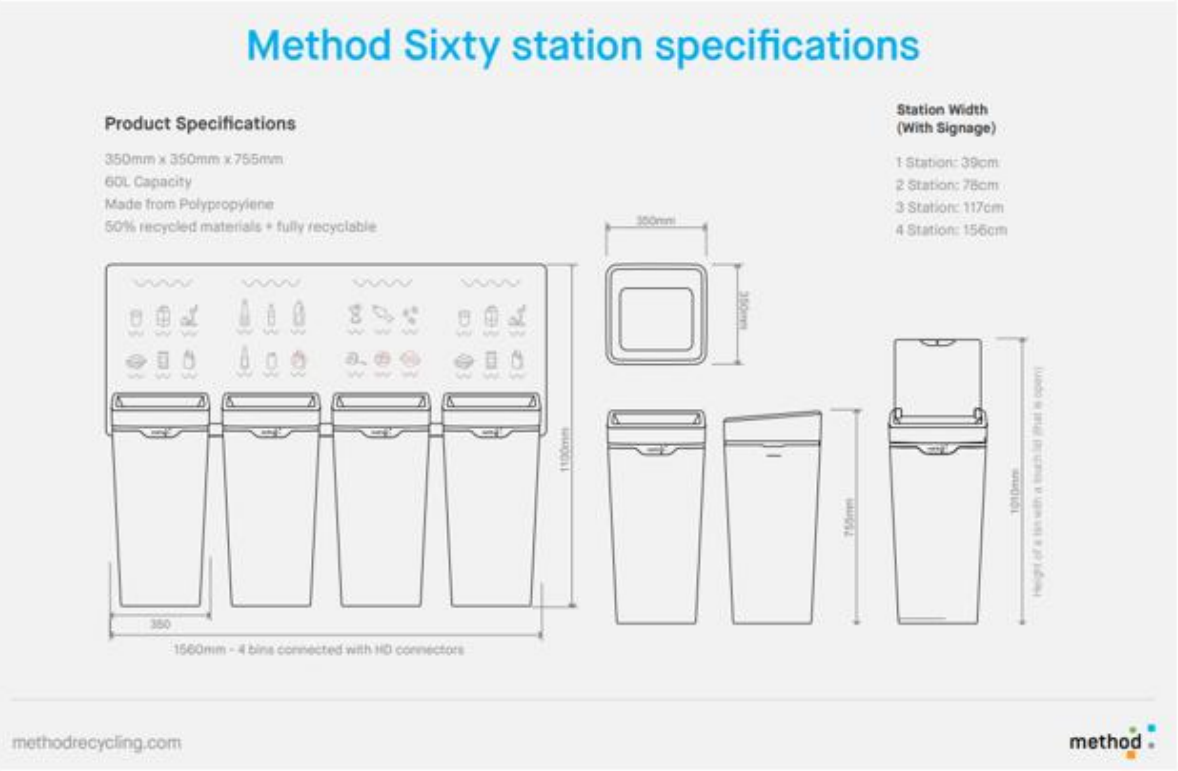
The waste management systems and the location of the collection point should always be designed so that the council can provide the standard domestic waste service.

Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority

APPENDIX C: SECONDARY WASTE MANAGEMENT PROVISIONS

APPENDIX: C.1 EXAMPLE SOURCE SEPARATION RECEPTACLES





Source: Method Recycling - www.methodrecycling.com