

WASTE MANAGEMENT PLAN

PREPARED FOR



DA01
RESIDENTIAL DEVELOPMENT
APARTMENTS - STAGE 1 & 1A
LORD SHEFIELD CIRCUIT
THORNTON
PENRITH NSW

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ABOUT ELEPHANTS FOOT

Elephants Foot Recycling Solutions is a family owned Australian company whose philosophy is providing quality recycling and waste solutions through product innovation. We are Australia's leading supplier of garbage, recycling and laundry chute systems.

Our team of experts has been proudly assisting architects, builders and developers with advice on how best to solve waste management and odour issues in dwellings since 1976. We have a long history of completed projects within the Australian building environment. Recent major projects completed include:

- Karimbla Constructions – Meriton Infinity, Herschel Street Brisbane Qld
Won the International Property Award for 'Best Residential High-Rise Development' Australia in 2014
- Laing O'Rourke – M&A, McLachlan & Ann Streets, Brisbane Qld
- Dylam – 15 Young Street, Carlingford NSW
- Hickory Developments – Ilk Apartments, 227 Toorak Road, South Yarra VIC
- Equiset – 27 Little Collins Street, Melbourne VIC

Elephants Foot also provides waste management planning services; recent plans include:

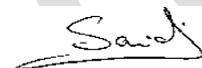
- Meriton – 94-100 Dalmeny Avenue, Rosebery NSW
- Fife Capital – 38-48 York Street & 379-385 George Street, Sydney NSW
- Dylam – KOI, Parramatta NSW
- Mirvac – Green Square, Site 5A and 5B, NSW
- Bao Jia Developments – 300 George Street, Brisbane Qld

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EXECUTIVE SUMMARY

This waste management plan covers the ongoing management of waste generated by the residential development located at Lord Sheffield Circuit, Thornton, Penrith NSW 2750.

Waste audit and management strategies are recommended for new developments to provide support for the building design and promote strong sustainability outcomes for the building. All recommended waste management plans will comply with council codes and any statutory requirements. The waste management plan has three key objectives:

- i. **Ensure waste is managed to reduce the amount of waste and recyclables to land fill** by assisting residents to segregate appropriate materials that can be recycled; displaying signage to remind and encouraging recycling practices; and through placement of recycling and waste bins in the retail precinct to reinforce these messages.
- ii. **Recover, reuse and recycle** generated waste wherever possible.
- iii. **Compliance** with all relevant codes and policies.

To assist in clean and well-segregated material, building management can work proactively with residents in the following way:

- Building management should ensure their communications achieve a regular and consistent message.
- By-laws: the resident's by-laws should include a requirement to actively participate in recycling/ diversion initiatives implemented within the residential buildings.

INTRODUCTION

The following waste management plan pertains to the proposed residential development located at Stage 1 and 1A, Lord Sheffield Circuit, Thornton, Penrith NSW 2750. This waste management plan is an operational waste management plan and will address the phases of the completed development.

For the purpose of this report the proposed development will consist of:

- Four multi-level buildings named Block A, B, C and D
- DA02 - Block B (7 levels) 49 units, and Block D (4 levels) 19 units with 68 residential units
- DA01 - Block A (8 levels) with 64 units, Block C (4 levels) 19 units with 83 residential units
- 151 residential units in total

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

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PENRITH CITY COUNCIL

The assessment of waste volumes is an estimate only and will be influenced by the development's management and occupant's attitude to waste disposal and recycling.

The residential waste and recycling will be guided by the services and acceptance criteria of the Penrith City Council. The residential waste and recycling will be collected by council.

All waste facilities and equipment are to be designed and constructed to be in compliance with the Penrith City Council, Australian Standards and statutory requirements.

OBJECTIVES

- Facilitate sustainable waste management within the City of Penrith in accordance with the principles of Ecologically Sustainable Development
- Manage waste in accordance with the 'Waste Hierarchy' to:
 - avoid producing waste in the first place;
 - minimise the amount of waste produced;
 - re-use items as many times as possible to minimise waste;
 - recycling once re-use options have been exhausted; and
 - dispose of what is left, as a last resort, in a responsible way to appropriate waste disposal facilities
- Assist in achieving Federal and State Government waste minimisation targets as set out in the *Waste Avoidance and Resource Recovery Act 2001* and *NSW Waste Avoidance and Resource Recovery Strategy 2007*
- Minimise the overall environmental impacts of waste by:
 - encouraging development that facilitate ongoing waste avoidance and complements waste services offered by both Council and/or private contractors;
 - requiring on-site source separation and other design and siting standards which assist waste collection and management services;
 - encouraging building designs and construction techniques that minimise waste generation;
 - maximising opportunities to reuse and recycling building and construction materials as well as other wastes in the ongoing use of a premise; and
 - reducing the demand for waste disposal.



GENERATED WASTE VOLUMES

This assessment of waste volumes is an estimate only and will be influenced by the development's management and occupants' attitude to waste disposal and recycling.

CONSTRUCTION AND DEVELOPMENT WASTE

The head contractor will be responsible for removing all construction-related waste offsite in a manner that meets all authority requirements. Please refer to the separate waste management plan submitted for construction waste as part of the Development Application.

WASTE DEFINITION

Garbage:	all domestic waste (except recyclables and green waste)
Recycling:	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.
Green:	garden organics such as small branches, leaves and grass clippings, tree and shrub prunings, plants and flowers, and weeds.
MGB:	Mobile garbage bin
L:	litres

BUILDING MANAGER/ WASTE CARETAKER

All equipment movements in the room are managed by the building manager/ cleaners at all times. No tenants will be allowed to transport waste or recyclables from the waste room; tenants will only transport their waste to the room allocated.

The building manager/ cleaner duties include, but are not limited to, the following:

- General maintenance and cleaning of the chute doors on each level (Frequency will depend on waste generation and will be determined based upon building operation)
- Organising, maintaining and cleaning the general and recycled waste holding areas (Frequency will depend on waste generation and will be determined based upon building operation)
- Transporting of bins as required
- Organising both garbage and recycled waste pick-ups as required
- Cleaning and exchanging all bins
- Ensure site safety for residents, children, visitors, staff and contractors
- Abide by all relevant OH&S legislation, regulations, and guidelines
- Assess any manual handling risks and prepare a manual handling control plan for waste and bin transfers
- Provide to staff/contractors equipment manuals, training, health and safety procedures, risk assessments, and PPE to control hazards associated with all waste management activities.

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 and occupants' attitudes to waste disposal and recycling, bin numbers and sizes may need to be altered to suit the building operation.

REPORTING

It is recommended that building management ensure that all waste service providers submit monthly reports on all equipment movements and weights of any waste and recycling products removed from the development. Regular reviews of servicing should take place to ensure operational and economic best practise and to assist with sustainability reporting.

EDUCATION

Educational material encouraging correct separation of garbage and recycling items must be provided to each resident to ensure correct use of the chutes and to ensure an understanding of each chute's use. This should include the correct disposal process for bulky goods (old furniture, large discarded items etc.). It is recommended that information is provided in multiple languages to support correct practises and minimise contamination in the collection MGB as well as chute blockages.

It is also recommended that the development's website contain information for residents to refer to regarding use of the chute. Information should include:

- directions on using the chute doors;
- recycling and garbage descriptions (Council provides comprehensive information);
- how to dispose of bulky goods and any other items that are not garbage or recycling;
- residents' obligations to WHS and building management; and
- how to prevent damage or blockages to the chute (example below).

TO PREVENT DAMAGE OR BLOCKAGE TO RUBBISH CHUTE DO NOT place, umbrellas, bedding, cigarettes, cartons, coat hangers, brooms, mops, large plastic wrappings from furniture, white goods, any sharp objects, hot liquid or ashes, oil, unwrapped vacuum dust, syringes, paint and solvents, car parts, bike parts, chemicals, corrosive and flammable items, soil, timber, bricks or other building materials, furniture, etc. down the chute.

RESIDENTIAL WASTE

Using council's waste generation rates, the total waste generated by the development can be calculated as follows:

Waste: 120L/unit/week

Recycling: 120L/unit/week

See Appendix 1 for bin dimensions

TABLE 1 – RESIDENTIAL WASTE GENERATION

Building	Units	Waste L	2:1 compaction	Recycling L	Waste 1100L	2xweekly waste collections	Recycling 1100L
DA02 -B	49	5880	2940	5880	3	2	6
DA02 -D	19	2280	1140	2280	1	1	2
DA01 - A	64	7680	3840	7680	4	2	7
DA01 - C	19	2280	1140	2280	1	1	2
Total	115	18,120L	9060L	18,120L	9	6	17

BIN SUMMARY

Garbage: 6 x 1100L MGB

Recycling: 12 x 1100L MGB

The above assumptions have been taken into consideration for the calculation of these figures:

- Garbage is compacted using a manual compactor suitable for 1100L MGB;
- Recycling is also not compacted however bulk cardboard will be extracted from the recycling stream and baled for a recycler to collect (this has been noted in the reduction of recycling bin numbers above);
- Full garbage and recycling bins will be transported to the enclosed bin store on ground for collection;
- Number of bins have been rounded up for best operational outcome; and
- Garbage bin numbers based on collections twice weekly/recycling collected weekly

WASTE MANAGEMENT

Council require for any building comprising three or more storeys, as a minimum, a garbage chute system is to be provided for the residential levels of the building.

Every residential level will be supplied with a chute outlet that provides the opportunity to dispose of garbage and recyclable items (dual chutes).

The residential levels will be supplied with separate garbage and recycling chutes located in a chute room. Each garbage chute will discharge into 1100L collection bins. Recycling will discharge into 1100L collection bins (not compacted) located on basement level 1.

All residents will be supplied with a collection area in each unit (generally in the kitchen, under bench or similar alternate area) to deposit waste and collect recyclable and compostable material suitable for one days storage. Residents should wrap or bag their waste. It is recommended that bagged garbage should not exceed 3kg in weight or 35cm x 35cm x 35cm in dimension.

Recycling must not be bagged. It is recommend that residents use a crate or dedicated bin for collecting recyclables within the allocated residential space provided to ensure correct separation before using the recycling chute system. It is expected that residents will place clean and empty recycling items into the chute when using the recycling chute. (*See typical residential level chute room below*)

Once putrescible and recyclable waste streams are separated, the resident will carry these to the waste compartment housing the chute door and deposit bagged waste into the garbage chute and loose recyclables into the recycling chute.

Council requires maximum storage area for each waste service compartment and doors are required to open outwards.

GREEN WASTE

There will be green waste generated by the buildings landscaping. Any green waste will be collected and removed from site by the maintenance contractor.

COMPOSTING

An area for composting may be provided on site and made available for residents' use (see *Appendix 1 – Waste Management Equipment*). The siting of composting facilities should consider:

- the location and proximity of dwellings (including those adjoining the subject property), to minimise likely odour impacts/nuisance;
- the location of the drainage system;
- whether the facility is appropriately designed for composting; and
- provision of signposting to ensure inappropriate waste is not added to the compost

Alternately, consideration should be given to providing space for individual home unit worm

farms or small compost bins for residents to self-manage. Information on two styles of apartment suitable composting bins are included. (See *Appendix 3 – Composting*)

COMMON AREAS

Any common areas will be supplied with suitably branded waste and recycling bins. Building management will monitor use and ensure bins are exchanged and cleaned. (See *Appendix 1 – Waste Management Equipment*)

EWASTE RECYCLING

Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors are able to be recycled yearlong at no cost to residents using Council's eWaste recycling centre/s:

Penrith Landfill: 842 Mulgoa Rd, Mulgoa. Collection Zone is located within the landfill. Phone 4773 8778 for more information and opening hours.

Eastern Creek Landfill: Wallgrove Rd, Eastern Creek. Drop Zone is located within the landfill.

Phone 1300 651 116 for more information and opening hours

No other electronic waste (such as DVD players, game consoles, television speakers) is accepted for recycling at these locations.

Council also holds regular free e-waste drop off days at Jamison Park, Penrith - usually each March and September.

CARDBOARD BALER

Please note: Cardboard furniture boxes or large cardboard containers should not be included in the waste chute – a collection area will be made available to residents to deposit this material; flattened where possible. A cardboard baler will be utilised; building management will feed cardboard product into the baler until a bale is produced. The baled cardboard will be stored on and transported to the ground level loading area for scheduled collection by the nominated recycler. (See *Appendix 6 – Cardboard baler location*)

BULKY GOODS

A room or caged area must be allocated for the storage of discarded residential bulky items and should be incorporated with the waste and recycling bin store and collection room. The allocated space must be a minimum of 8m³. This area must be made available close to the collection area. An area of 24m² has been made available for this purpose. (See *Appendix 8 – Bulky Goods*)

It is envisaged that bulky goods will be managed by the appointed waste caretaker/s. Residents will be required to liaise with building management regarding all bulky goods movements.

It is recommended that donations to charitable organisations be encouraged. Clean, sound furniture and household goods etc. are highly sought after to provide for the disadvantaged. Donations will be arranged with the assistance of the building manager/caretaker. (See *Useful Contacts*)

OTHER WASTE STREAMS

Electronic and hazardous waste must not be placed in garbage or recycling bins for safety and environmental reasons. Residents should be directed to Council's comprehensive website for further information:

<https://www.penrithcity.nsw.gov.au/Waste-and-Environment/Waste/E-Waste-drop-off-days/>
<http://recyclingnearyou.com.au/council/PenrithNSW>

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WASTE ROOM AREAS

For communal waste areas/s:

- if not located at ground level, a pathway must be provided that leads to the waste storage area that does not exceed a maximum gradient of 7% or a maximum travel distance of 30m.
- have an opening of no less than 1.2m, which is free of doors and linked to the development and the adjoining kerbside collection point by suitable pathways to allow ease of access for both resident and contractors. Pedestrian pathways should have a width of at least 1.2m, a gradient of no more than 7% and should not incorporate steps.
- Be covered, with wall constructed to a maximum height of 1.4m above ground level

Where number of bins will not comfortably fit on the street frontage, or characteristics of the site restrict access, collection can be made from the development. There must be sufficient manoeuvring area on-site to allow collection vehicles to enter and leave the site in a forward direction and service the development efficiently with little or no need to reverse.

Garbage rooms A, B, C and D will need to accommodate the dual chute discharge and two x 1100L MGB (garbage and recycling), and allow enough room to clean and safely manoeuvre bins. Each waste room should be a minimum of 4sqm and allow room for manoeuvring of bins. (See Appendix 5 – Waste Rooms)

The recommended raw bins area for the bin store on ground level is 35 sqm and includes 6 sqm of moving space. Bins will be moved by the waste caretaker to the ground level collection area according to the agreed collection schedule. (See Appendix 9– Bin collection area)

COLLECTION OF WASTE

Council recommends the waste storage and/or collection area must:

- allow bins to be wheeled to the street kerb over flat or ramped surfaces with a maximum grade of 7% and not over steps, landscape edging or gutters;
- allow for bulk bins to be wheeled out and be serviced by a front loading garbage truck on a flat surface with a maximum grade of 5%, and not over steps, landscape edges or gutters; and
- be screened or discreetly located away from public spaces.

Where number of bins will not comfortably fit on the street frontage, or characteristics of the site restrict access, collection can be made from the development. There must be sufficient manoeuvring area on-site to allow collection vehicles to enter and leave the site in a forward direction and service the development efficiently with little or no need to reverse.

The enclosed bin collection area (*See Appendix 9 – Bin Collection Area*) is located off Cliff Road and provides an area for the Council collection vehicle. Building management will be reasonable for ensuring full bins are delivered to the enclosed bin collection area and empty ones rotated back to the holding area or waste rooms.

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WASTE CHUTES

The waste and recycling chutes for the residential areas are supplied in either 510mm galvanised steel or 510mm recycled LLDPE plastic with 2-hour fire rated doors. Galvanised steel chute hoppers are wrapped with 50mm poly-wool R1.3 noise insulation foil to assist in noise reduction.

Penetrations on each building level at vertically perpendicular points with minimum penetration dimensions 600mm x 600mm (square or round) are required to accommodate each chute installation.

Chutes must be installed without offsets to achieve best operational outcome for all buildings.

Stainless steel, two-hour fire-rated (AS1530.4-2005) refuse chute doors are to be provided at each service level. All doors are fitted with a self-closing mechanism to meet BSA fire standards.

The chute doors must be supplied with garbage and recycling identification so residents can easily recognise the correct chute and its use.

The dual chutes must be placed behind a door which provides an air lock to reduce odours.

The chutes must be installed with a wash down system – a supply of a cold water connection at the top of the chute with on/off valve required (for cleaners to access the chute for cleaning purposes.)

The discharge chute must be fitted with a fire damper so the chute can be closed during servicing and changeover of bins.

All chutes must be installed in a fire rated shaft and waste room as per BCA requirements. Note: Typical standard drawings have been included in the *Appendices 3 & 4*.

EQUIPMENT SUMMARY

Chutes: eight (8) required in galvanised steel or LDPE plastic

Equipment: eight (8) Type A doors with fusible links discharging into 1100L collection bins

Optional: Bin tug and/or bin lifting equipment (See Useful Contacts)

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
- For residential: a hot and cold water facility with mixing facility and hose cock must be provided for washing the bins
- For retail/commercial: a cold water facility with hose cock must be provided for washing the bins
- Any waste water discharge from bin washing must be trained to sewer in accordance with the relevant water board.
- 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. This process generally takes place at building handover – building management make the decision to install.
- All personnel doors are hinged 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
- Childproofing and public/operator safety shall be assessed and ensured

SIGNAGE

The building manager/caretaker is responsible for waste room signage including safety signage.

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. (See *Appendix 2 – Signage*)

All chute doors on all levels will be labelled with a sign stating '*GARBAGE ONLY IN THE CHUTE*' Or '*RECYCLING ONLY IN THE CHUTE*'. Separate signage will direct chute operations and encouraging occupants to recycle and minimise their waste.

VENTILATION

Waste and recycling rooms must have their own exhaust ventilation system. Council prefers natural ventilation where possible.

- Naturally - permanent, unobstructed, and opening direct to the external air, not less than one-twentieth (1/20) of the floor area.

- Mechanically - exhausting at a rate of 5L/m² floor area, with a minimum rate of 100L/s minimum, or

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

STORM WATER PREVENTION & LITTER REDUCTION

Building management shall be responsible for the following to minimise dispersion of site litter and prevent stormwater pollution to avoid impact to the environment and local amenity:

- promote adequate waste disposal into the bins
- secure all bin rooms (whilst affording access to staff/contractors)
- prevent overfilling of bins, keep all bin lids closed and bungs leak-free
- take action to prevent dumping or unauthorised use of waste areas
- ensure collection contractors clean-up any spillage that may occur when clearing bins

ADDITIONAL INFORMATION

Transfer of waste and all bin movements require minimal manual handling therefore the operator must assess manual handling risks and provide any relevant documentation to building management. If required, a bin-tug, trailer or tractor consultant should be contacted to provide equipment recommendations. Hitches may require installation to move multiple bins to the collection area. Council must be informed of any hitch attachments required to be installed on bins.

LIMITATIONS

The purpose of this report is to document a Waste Management Plan as part of a development application and is supplied with the following conditions:

- Drawings and information supplied by the project architect
- 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 waste management.
- 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.
- Any manual handling equipment should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply.

USEFUL CONTACTS

Penrith City Council
Customer Service: 02 4732 7777
Waste Hotline: 1800 734 735
Email: council@penrithcity.nsw.gov.au

SULO MGB (MGB, Public Place bins, tugs and bin hitches)
Phone: 1300 364 388

RUD (Public place bins, recycling bins)
Phone: 07 3712 8000
Info@rud.com.au

Closed Loop (organic dehydrator/recycled cup product)
Phone: 02 9339 9801

National Association of Charitable Recycling Organisations Inc. (NACRO)
Phone: 03 9429 9884
Email: information@nacro.org.au

Purifying Solutions (odour control)
Phone: 1300 636 877 (1300 ODOURS)
sales@purifyingsolutions.com.au

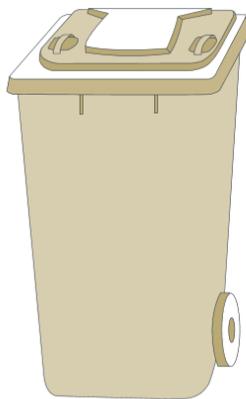
Elephants Foot Recycling Solutions (Chutes, compactor and eDiverter systems)
44 – 46 Gibson Avenue
Padstow NSW 2211
Free call: 1800 025 073
Email: natalie@elephantsfoot.com.au

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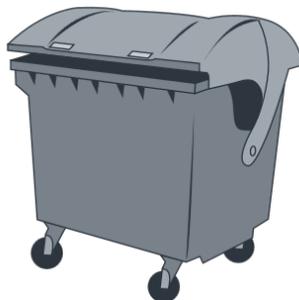
APPENDIX 1 – WASTE MANAGEMENT EQUIPMENT

MGBs with capacities up to 1700L should comply with the Australian Standard for Mobile Waste Containers (AS 4123). AS 4123 specifies standard sizes and sets out the colour designations for bodies and lids of mobile waste containers that relate to the type of materials they will be used for.

Indicative sizes only for common MGB sizes are provided below. Note that not all MGB sizes are shown; the dimensions are only a guide and differ slightly according to manufacturer, if bins have flat or dome lids and are used with different lifting devices. Refer to AS 4123 for further detail.



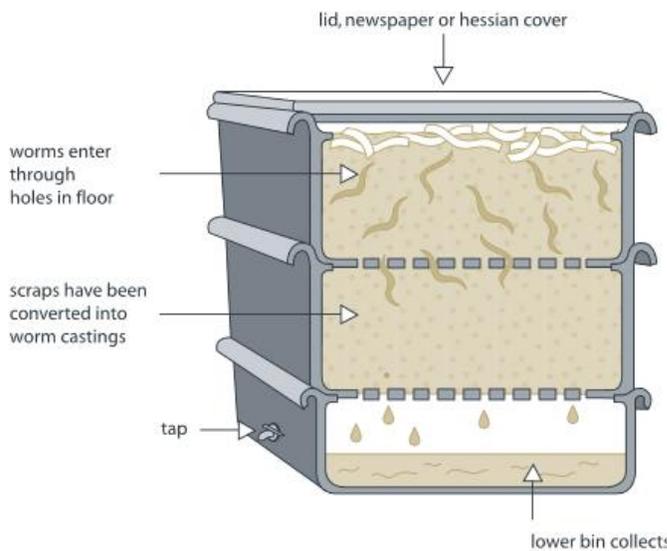
Bin Type	80 Litre MGB	120 Litre MGB	140 Litre MGB	240 Litre MGB	360 Litre MGB
Height	870 mm	940 mm	1065 mm	1080 mm	1100 mm
Depth	530 mm	560 mm	540 mm	735 mm	885 mm
Width	450 mm	485 mm	500 mm	580 mm	600 mm



Dome or flat lid containers

Bin Type	660 Litre MGB	770 Litre MGB	1100 Litre MGB	1300 Litre MGB	1700 Litre MGB
Height	1250	1425	1470	1480	1470
Depth	850	1100	1245	1250	1250
Width	1370	1370	1370	1770	1770

WORM FARMS



Space requirements for a typical worm farm for an average household:

Height – 300mm per level

Width – 600mm

Length – 900mm

There are many worm farm arrangements. The above dimensions are indicative only.

Source: Department of Environment and Climate Change NSW 2008, *Better Practice Guide for Waste Management in Multi-Unit Dwellings*



- Coffee grounds and filters
- Tea and tea bags
- Crushed eggshells (but not eggs)
- Nutshells
- Houseplants
- Leaves
- Cardboard rolls, cereal
- Boxes, brown paper bags
- Clean paper
- Shredded newspaper
- Fireplace ashes
- Wood chips, sawdust,
- Toothpicks, burnt matches
- Cotton and wool rags
- Dryer and vacuum cleaner lint
- Hair and fur
- Hay and straw

Typical Apartment Compost bin (See Useful Contacts)

Suitable for:

- Vegetables

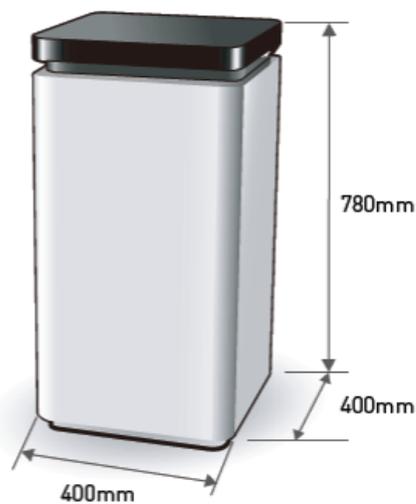
Electric organic compost bin (See Useful Contacts)

Decomposition Method	Aerobic fermentation by microorganisms
Decomposition Capacity	2 metric tonnes per year** (4 kg per day**)
Rating	220-240 V 50/60 Hz – 1.1 A
Decomposition Time	24 hrs
Operating Temperature	0°C and 40°C***
Deodorisation Method	Nano-Filter system
Maximum Power	210 W
Weight	21 kgs
External Dimensions	w 400 mm d 400 mm h 780 mm

* Excludes scallop and oysters shells and large bones.

** Food Waste Handling Capacity – based on an optimal operating environment.

***Ambient temperature range of area where unit may be installed.



APPENDIX 2 –SIGNAGE FOR WASTE AND RECYCLING BINS

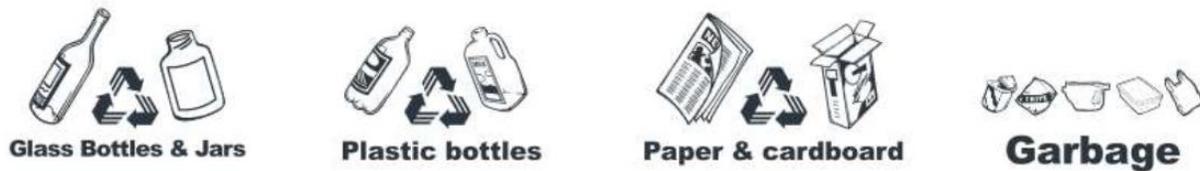
WASTE SIGNS

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the Department of Environment and Heritage.

Example wall posters



Example bin lid stickers



SAFETY SIGNS

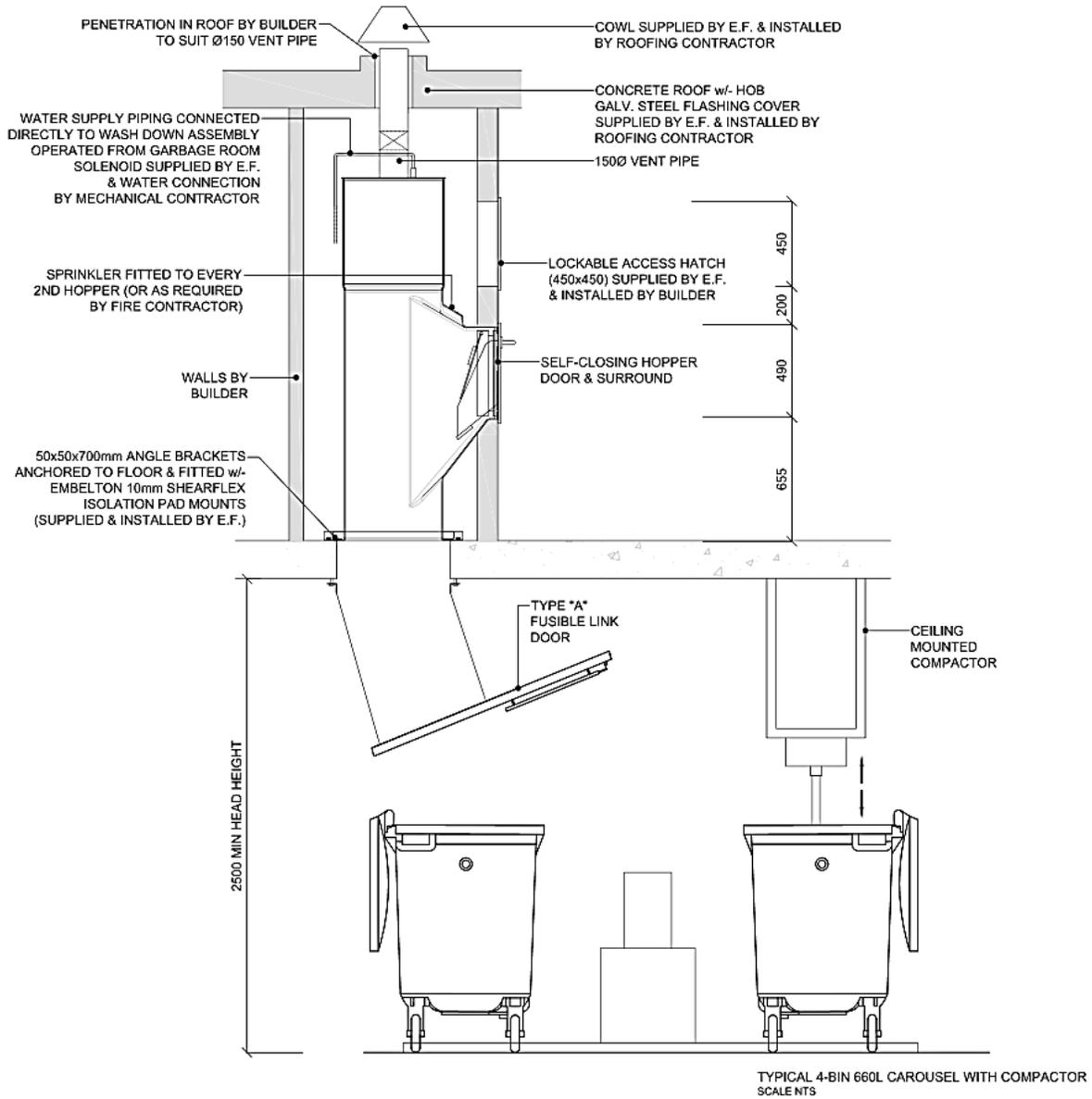
The design and use of safety signs for waste rooms and enclosures should comply with AS1319 Safety Signs for Occupational Environment. Safety signs should be used to regulate and control safety behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Each development will need to decide which signs are relevant for its set of circumstances and service provided.

Examples of Australian Standards:

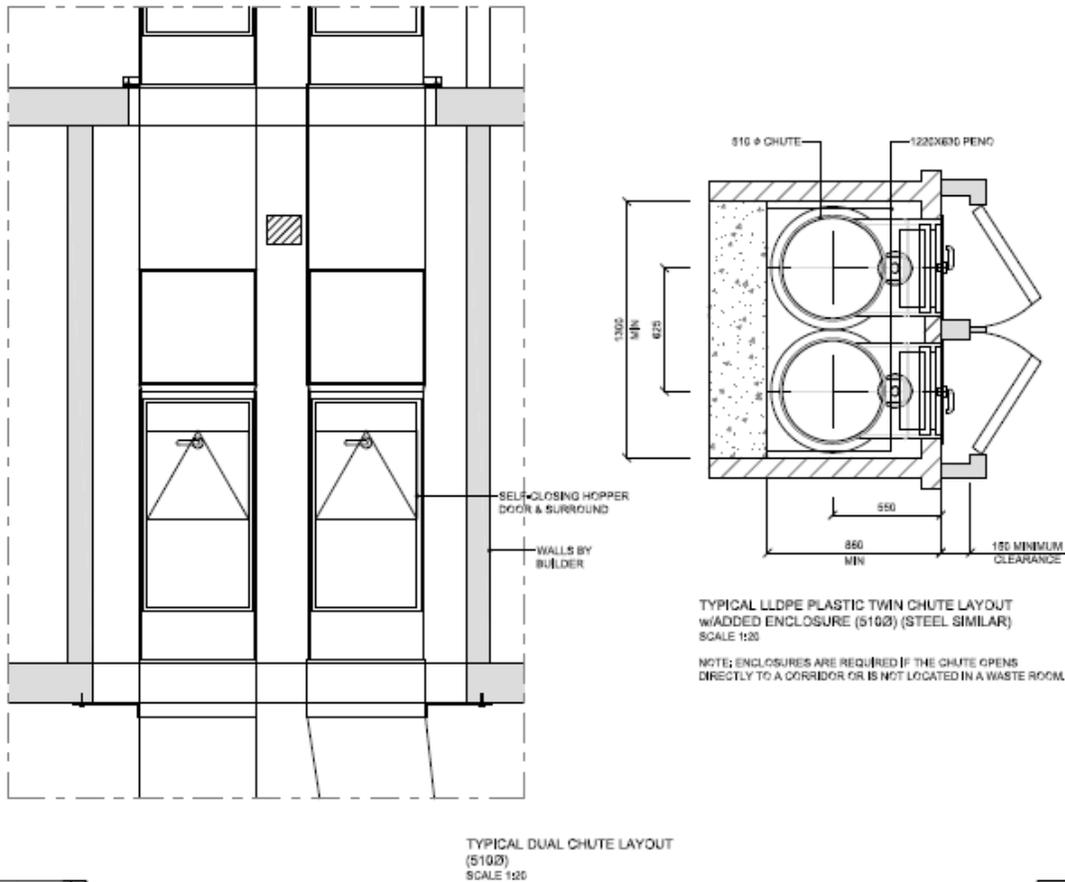


Australian Standards are available from the SAI Global Limited website (www.saiglobal.com).
Source: *Better Practice Guide to Waste Management in Multi-Unit Dwellings*, 2008, DECC

APPENDIX 3 – TYPICAL WASTE CHUTE

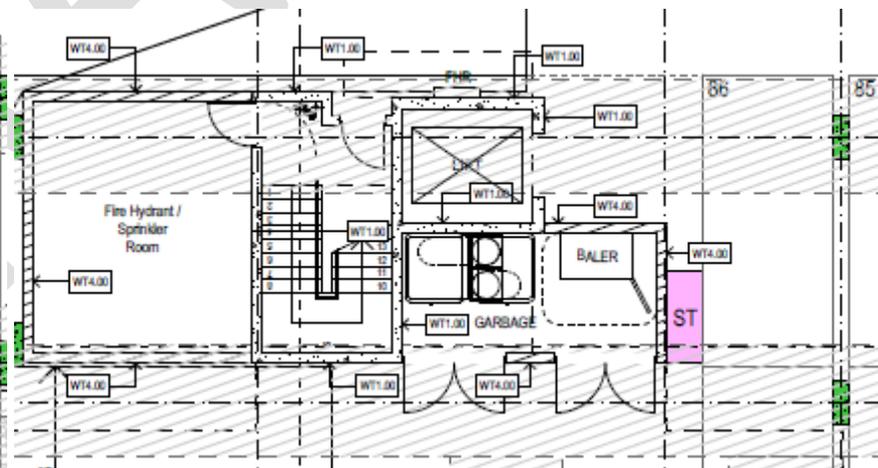
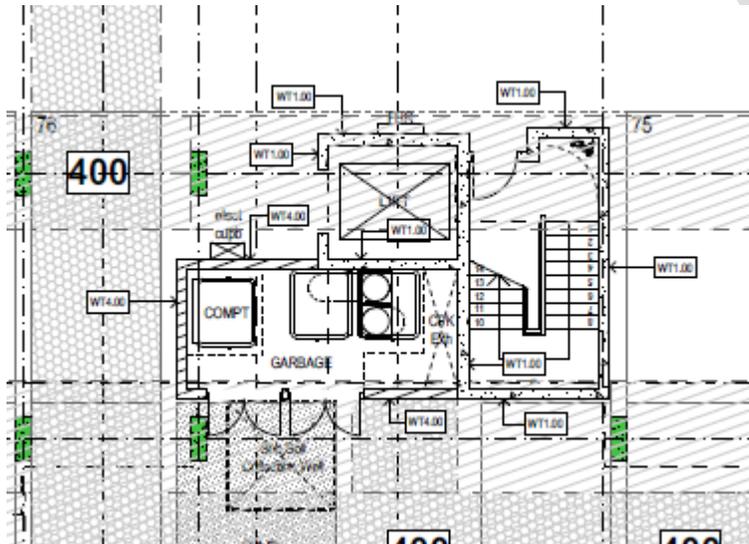
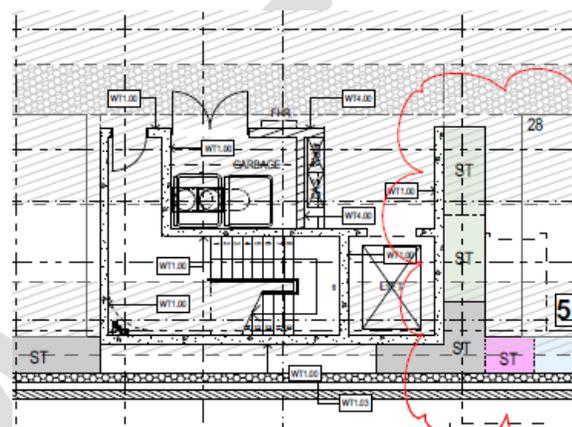
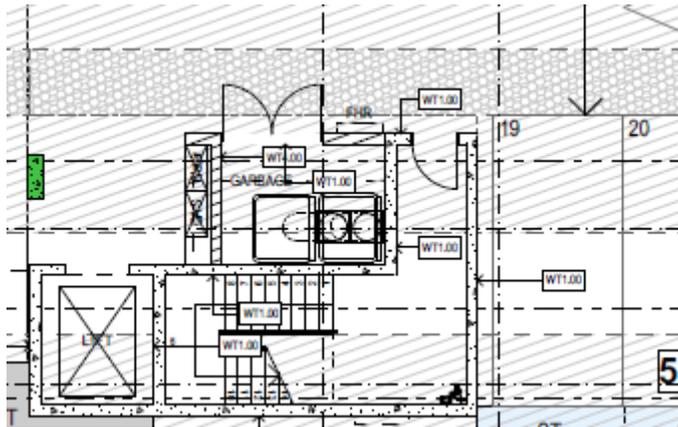


APPENDIX 4 – TYPICAL DUAL CHUTE LAYOUT



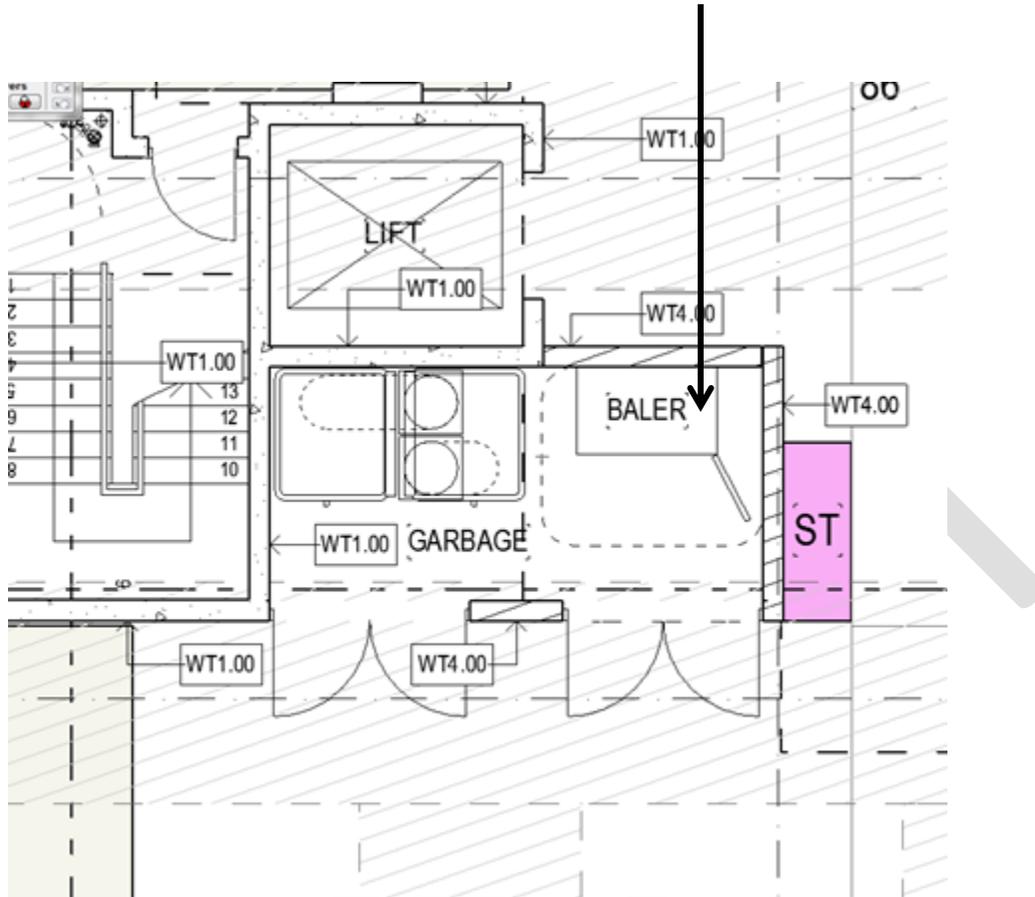
Source: Elephants Foot

APPENDIX 5 – WASTE ROOMS (DUAL CHUTES)

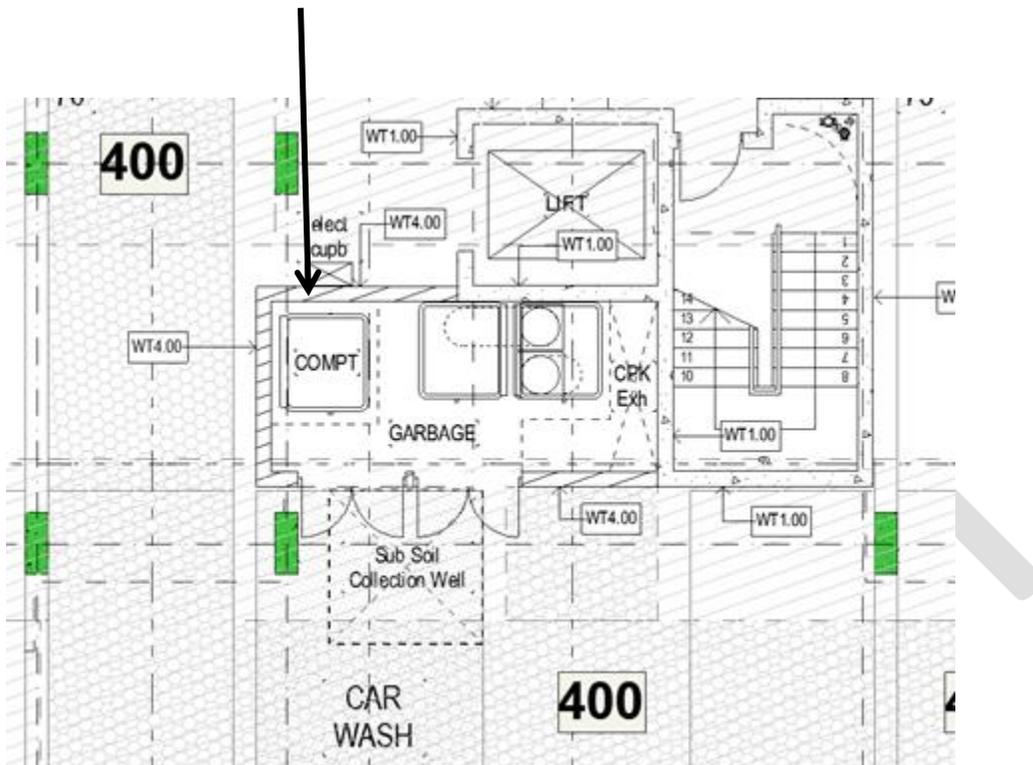


Excerpt: DKO DWG No. A2101 Rev H – Basement Level 1

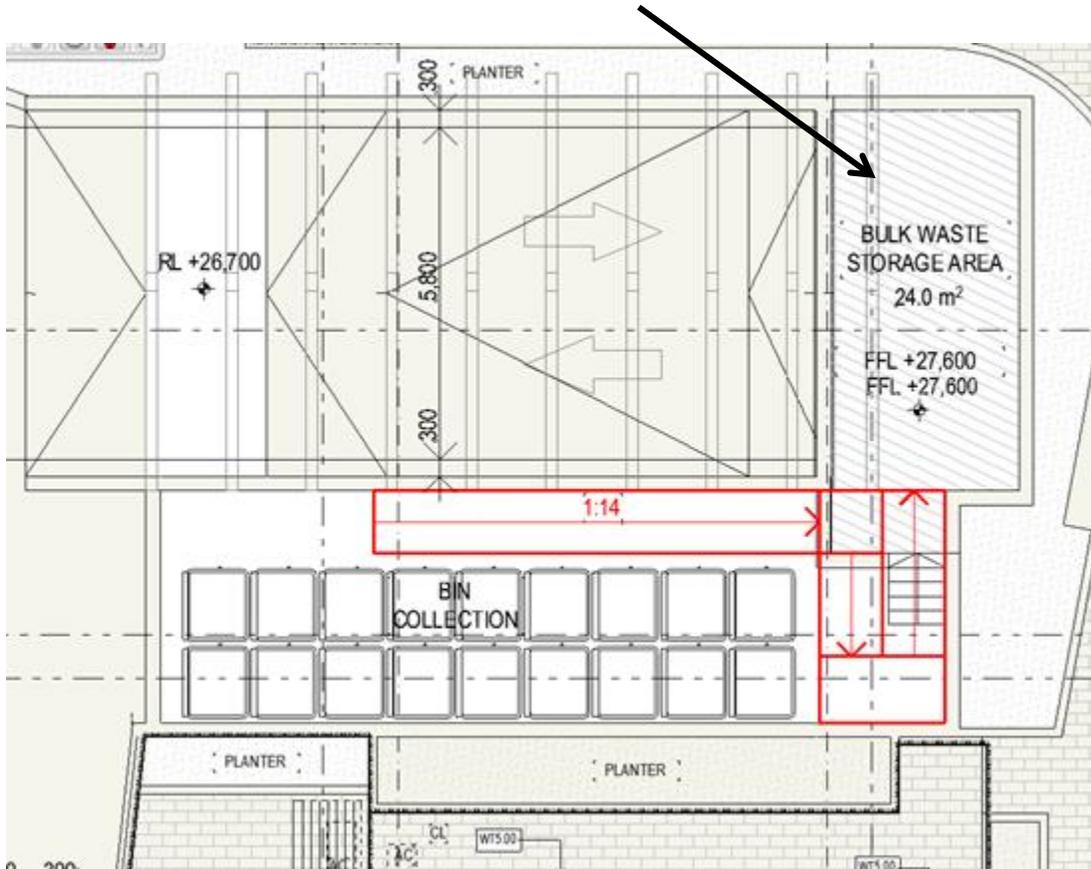
APPENDIX 6 – CARDBOARD BALER LOCATION



APPENDIX 7 – compactor location



APPENDIX 8 – BULKY GOODS AREA



DR

APPENDIX 9 – BIN COLLECTION AREA

