WASTE MANAGEMENT PLAN

PREPARED FOR
TM

ON BEHALF OF
DESIGN WORSHOP AUSTRALIA

DEVELOPMENT TYPE RETAIL/RESIDENTIAL
311 HUME HIGHWAY
LIVERPOOL NSW

AMENDED DEC 2016

EDDY SAIDI
1800 025 073

ELEPHANTS FOOT WASTE COMPACTORS PTY LTD **ABN** 70 001 378 294
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Offices in Victoria & Queensland - Toll Free 1800 025 073

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
- Dyldam – 15 Young Street, Carlingford NSW
- Hickory Developments – Ilk Apartments, 227 Toorak Road, South Yarra VIC
- Equiset – 27 Little Collins Street, Melbourne VIC

REVISIONS

Revision	Date	Prepared by	Reviewed by	Approved by	Remarks
A	17-12-14	E Saidi	N Beattie	E Saidi	Draft
B	Dec-14	N Beattie	E Saidi	E Saidi	Final
C	Jul-15	N Beattie	E Saidi	E Saidi	Amendment
D	Jul-15	N Beattie	E Saidi	E Saidi	Updated unit mix & plans supplied
E	Dec-16	J Elliot	A Armstrong	N Beattie	Updated bin sizes, quantities and collection frequency

Authorised By:
Date: 21 Dec 2016

DISTRIBUTION LIST

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Eddy Saidi	Elephants Foot Recycling Solutions	E	1
Shane Gray	DWA	E	2

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EXECUTIVE SUMMARY

This waste management plan covers the ongoing management of waste generated by the mixed use retail and residential located at 311 Hume Highway, Liverpool, NSW.

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.

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INTRODUCTION

The following waste management plan pertains to the proposed mixed use retail and residential located at 311 Hume Hwy Liverpool. 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:

- one 29-level tower with three basement levels
- two 7-level buildings named “A” (37 units) & “B”(30 units)
- 315 residential units in total (see mix below)
- 636.69m² commercial space

Unit Type	Number of Units
1 Bed	19
2 Bed	270
3 Bed	26
Total	**315**

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

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LIVERPOOL 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 Liverpool City Council. The residential waste and recycling will be collected by council. The retail and commercial waste will be collected by private contractor.

All waste facilities and equipment are to be designed and constructed to be in compliance with the *Liverpool Development Control Plan 2008,* Australian Standards and statutory requirements.

OBJECTIVES

- Minimise waste generation and disposal to landfill with careful source separation, reuse and recycling
- Avoid the generation of waste through design, material selection and building practices
- Ensure efficient storage and collection of waste and quality design of facilities

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;

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 Sydney;

Noise minimisation – minimise noise during use by residents and collection of waste and recyclables.

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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 just 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.

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.

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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 recycling chute and to ensure an understanding of the 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 newspapers, 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.*

It is expected that leasing arrangements with commercial/retail operations contain direction on waste management services and expectations.

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RESIDENTIAL WASTE

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

Waste: 120 litres/unit/week
Recycling: 120 litres/unit/week

Table 1 – Residential waste generation

Building	Units	Waste (L)	Recycling (L)	Waste Bins	Recycling Bins
Tower	248	29,760	29,760	7 x 1100L compacted	124 x 240L
Building A	37	4,440	4,440	2 x 1100L compacted	19 x 240L
Building B	30	3,600	3,600	1 x 1100L compacted	15 x 240L
Total	315	36,480	36,480	10 x 1100L compacted	158 x 240L

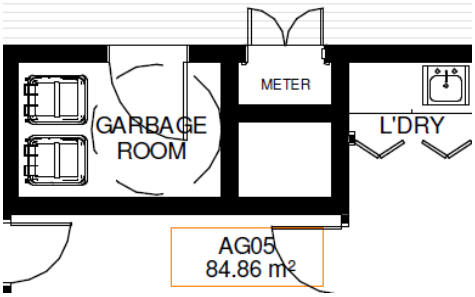
The above assumptions have been taken into consideration for the calculation of these figures:

- Garbage is compacted 2:1 at the base of each chute;
- Recycling is not compacted;
- 1 x 240L MGB is located in the waste compartment on each residential level with full bins transported to the loading dock for collection;
- Number of bins have been rounded up for best operational outcome; and
- Garbage bin numbers based on 2 collections weekly/recycling collected weekly

Bin number will vary if council will offer extra collection services.

WASTE MANAGEMENT

As per the drawings, in each building there is a single waste chute servicing each level with waste falling into a compactor carousel located in the waste room on basement 1 level. Bins will be rotated and compacted at a 2:1 ratio and full bins will be transferred to the bin holding room under building B on ground level. Recycling bins will be situated in the waste compartment (See below) on each residential level for collection of recyclable items.



Typical waste compartment

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WASTE HANDLING

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 material suitable for one day's storage. Residents should wrap or bag their waste before depositing into the waste chute. Bagged garbage should not exceed 3 kg in weight.

Recycling must be sorted prior to being emptied into the recycling bins located in the waste compartment on each residential level.

Part of the caretaker/cleaner's duty will be to exchange or empty recyclable bins and store them in the main bin storage room located on lower ground level, ready for collection. The caretaker/cleaner will also be required to check the 240L MGB collecting waste from each chute, rotate full bins to the storage and collection area, and replace empty 240L MGB under each chute operation.

GREEN WASTE

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

COMPOSTING

Consideration should be given to providing space for individual, small compost bins for residents to self-manage. *(See Appendix 2 – Waste Management Equipment)*

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COMMON AREAS

The retail and common areas on ground levels, circulation areas and outdoor terraces will be supplied with suitably branded waste and recycling bins. Building management will monitor use and ensure bins are exchanged and cleaned. *(See Appendix 2 – Waste Equipment Specifications)*

BULKY GOODS

A room or caged area must be allocated for the storage of discarded bulky items and sign marked appropriately.

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.

OTHER WASTE STREAMS

Council provide 4 days per year for free recycling of eWaste goods. Residents should be directed to Councils comprehensive website for further information:
http://www.liverpool.nsw.gov.au/council/media/media-releases/2013/february/15-february-2013,-dispose-of-your-e-waste-the-safe-way

Other waste streams also include household chemicals, paint and hazardous materials. Again, residents should contact council for further information:
http://www.liverpool.nsw.gov.au/services/waste-and-recycling/household-chemical-collection

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COMMERCIAL

The *Better Practice Guide for Waste Management and Recycling in Multi-unit Dwellings* has been referenced to calculate the total number of bins required for the commercial areas. Please note that calculations are based on generic figures; waste generation rates may differ according to office practice. A five day operating week has been assumed.

Table 2: *Calculated Waste Generation – Commercial*

Type	Total NLA (m^2)	Waste Calculation ($L/100m^2/day$)	Generated Waste (L/week)	Recycling Calculation ($L/100m^2/day$)	Generated Recycling (L/week)
Office (two tenancies)	636.69	10	318.345	10	318.345

BIN SUMMARY

Table 3: *Bin Summary – Commercial*

	Garbage			Recycling		
Building/Waste Rooms	**Bin Capacity** (L)	**Quantity**	**Collection Rate** (times/week)	**Bin Capacity** (L)	**Quantity**	**Collection Rate** (times/week)
Commercial Waste and Recycling Storage Room	240	2	1	240	2	1

NOTE: Subject to the stakeholders preference/capability (and as built constraints), bin sizes and quantities may be changed. As waste volumes may change according to the development's type, bin numbers and collection frequencies may be altered to suit the building operation.

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WASTE MANAGEMENT

Typically, one or more bins for paper or waste are positioned next to each workers desk or work station. 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 waste and/or recycling are placed in a central location by the cleaners and transported to the collection bins in general bin collection room in building B. (See Appendix 5) Please note that residential and commercial bins should be kept separate. Collections by the contracted private waste services providers from each commercial tenancy should be considered.

Secure document destruction services may be arranged by the tenant if required. These services are conducted on a wheel in/wheel out basis from the office location.

COMINGLE RECYCLING

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.

WASHROOMS

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.

Please note that all collection receptacles and bins should be branded with the appropriate stickers and the use of the Mobius loop or similar identifying recycling equipment.

OTHER RETAIL/COMMERCIAL WASTE

Tenants usually make their own arrangements for the disposal and recycling of toner cartridges and batteries. Disposal of hard, electronic, liquid waste and any detox (paint/chemicals) shall be organised with the assistance of the building management/cleaners.

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WASTE ROOM AREAS

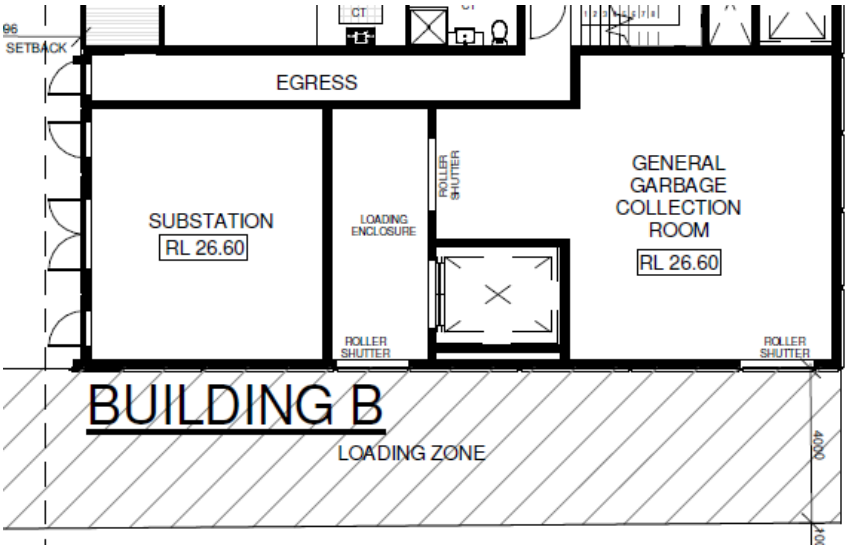
Each garbage room will need to hold all the bins generated weekly, and allow enough room to clean and safely manoeuvre bins. The minimum recommended space for each garbage room is as per the below table.

***Table 4** – Storage Areas (sqm), based on once weekly collection*

Building	Area required
"B" collection room	60m2

COLLECTION OF WASTE

As per drawings, there is a waste collection room under building "B" where all bins will be taken to for council collection, it will be the caretakers duty to ensure all bins are placed correctly for council service providers to access them easily for quick turn over.



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WASTE CHUTES

The waste and recycling chute for the residential areas are supplied in either 510mm galvanised steel or 510mm recycled LLDPE polyethylene plastic with 2-hour fire rated doors.

Galvanised steel chutes 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 the chute installation.

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

The chute system will be fitted with a carousel track to rotate full bins and place an empty bin under the chute outlet. A compacting device will also be attached to reduce waste volume and bin numbers.

EQUIPMENT SUMMARY

Chutes: three required in galvanised steel or LDPE plastic.

Equipment: three x 5-bin carousel compactor suitable for 240L MGBs.

Optional: bin tug and/or bin lifting equipment

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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. 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. All chute doors on all levels will be labelled with a sign stating '*GARBAGE 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 either;

- Mechanically - exhausting at a rate of 5L/m² 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.

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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.

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USEFUL CONTACTS

Liverpool City Council
Locked Bag 7064
Liverpool BC NSW 1871
Customer Service: 1300 362 170
Interstate: 02 9821 9222
Email: lcc@liverpool.nsw.gov.au

DWA DESIGN WORKSHOP AUSTRALIA	Wollongong 81a Princes Highway, Fairy Meadow Tel: (02) 4227 1661 Email: info@designworkshop.com.au Web: http://www.designworkshop.com.au	Sydney Level 2, 77 King Street, Sydney Tel: 0406 432 560 Email: info@designworkshop.com.au Web: http://www.designworkshop.com.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

BottleCycler Glass Management (Glass crusher and glass recycling service)
Phone:1300 306 039
Email info@bottlecycler.com

Closed Loop (organic dehydrator)
Phone: 02 9339 9801

REMONDIS (Private Waste Services Provider)
Phone: 13 73 73

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)
Natalie Beattie
Free call: 1800 025 073
Email: natalie@elephantsfoot.com.au

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

APPENDIX 1 – WASTE MANAGEMENT EQUIPMENT

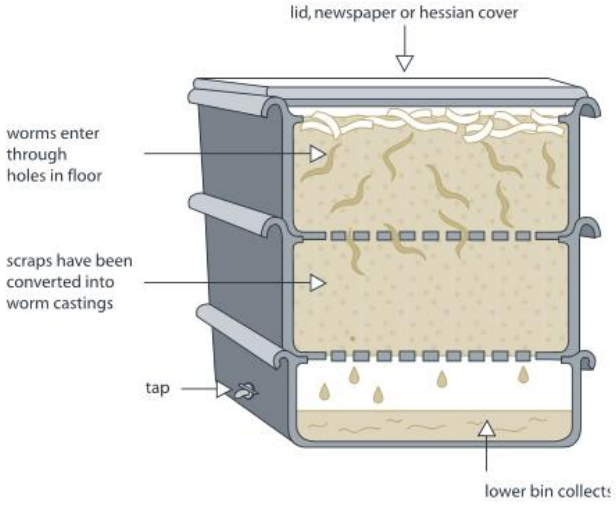
MOBILE GARBAGE BINS (MGBs)

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	Height	Depth	Width
140L	1065mm	540mm	500mm
240L	1080mm	735mm	580mm

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*

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Offices in Victoria & Queensland - Toll Free 1800 025 073

APPENDIX 2 –SIGNAGE FOR WASTE AND RECYCLING BINS

DO NOT place the following items into your red-lid garbage waste bin:

- Garden waste
- Gas bottles
- Car batteries
- Paint and chemicals
- Building materials
- Syringes and medical waste
- Motor oils and fuels
- Recyclable materials

On average every household produces approximately one tonne of waste per year. Your waste is collected from the kerbside and taken to SITA's Advanced Waste Treatment facility at Kemps Creek. Here, the waste will be further sorted to recover any other materials such as food to be diverted from landfill.

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Don't forget! You can also dispose of the following into your yellow-lid bin:

- ✓ Empty aerosol cans (remove lid and spray button)
- ✓ Telephone directories
- ✓ Cereal and food boxes (must be free from food residue)
- ✓ Office paper
- ✓ Envelopes with plastic windows
- ✓ Junk mail
- ✓ Egg cartons (cardboard only)
- ✓ Books
- ✓ Postcards and greeting cards
- ✓ Shoe boxes
- ✓ Fabric softener, detergent, shampoo and conditioner bottles

DO NOT place the following items into your yellow-lid recycling bin:

- ✘ Garden waste
- ✘ Nappies
- ✘ Household rubbish
- ✘ Light bulbs and broken glass
- ✘ Foam including meat trays
- ✘ Plastic bags and wrapping
- ✘ Paint and Chemicals
- ✘ Crockery and ceramics
- ✘ Syringes and medical waste

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DO NOT place the following items into your green-lid garden waste bin:

- Food scraps
- Soil and dirt
- Paint and Chemicals
- Crockery and ceramics
- Plastic bags and wrapping
- Recyclable materials
- Household rubbish
- Nappies

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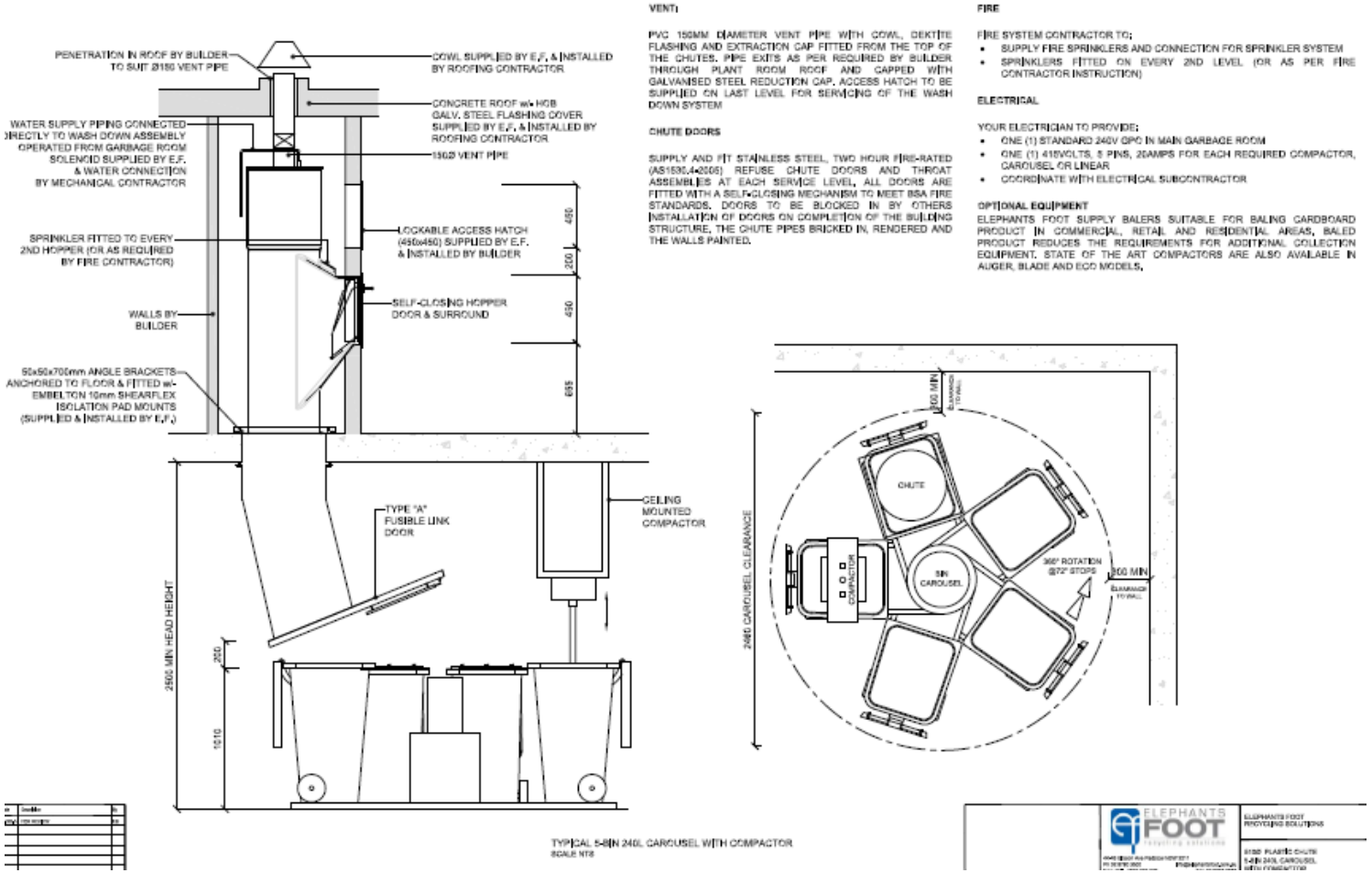
APPENDIX 3 – TYPICAL CAROUSEL COMPACTOR



VENT:

PVC 150MM DIAMETER VENT PIPE WITH COWL, DEKTITE FLASHING AND EXTRACTION CAP FITTED FROM THE TOP OF THE CHUTES. PIPE EXITS AS PER REQUIRED BY BUILDER THROUGH PLANT ROOM ROOF AND CAPPED WITH GALVANISED STEEL REDUCTION CAP. ACCESS HATCH TO BE SUPPLIED ON LAST LEVEL FOR SERVICING OF THE WASH DOWN SYSTEM

CHUTE DOORS

SUPPLY AND FIT STAINLESS STEEL, TWO HOUR FIRE-RATED (AS1530.4-2006) REFUSE CHUTE DOORS AND THROAT ASSEMBLIES AT EACH SERVICE LEVEL, ALL DOORS ARE FITTED WITH A SELF-CLOSING MECHANISM TO MEET BSA FIRE STANDARDS. DOORS TO BE BLOCKED IN BY OTHERS INSTALLATION OF DOORS ON COMPLETION OF THE BUILDING STRUCTURE, THE CHUTE PIPES BRICKED IN, RENDERED AND THE WALLS PAINTED.

FIRE

FIRE SYSTEM CONTRACTOR TO;

- SUPPLY FIRE SPRINKLERS AND CONNECTION FOR SPRINKLER SYSTEM
- SPRINKLERS FITTED ON EVERY 2ND LEVEL (OR AS PER FIRE CONTRACTOR INSTRUCTION)

ELECTRICAL

YOUR ELECTRICIAN TO PROVIDE;

- ONE (1) STANDARD 240V GPO IN MAIN GARBAGE ROOM
- ONE (1) 415VOLTS, 5 PINS, 20AMPS FOR EACH REQUIRED COMPACTOR, CAROUSEL OR LINEAR
- COORDINATE WITH ELECTRICAL SUBCONTRACTOR

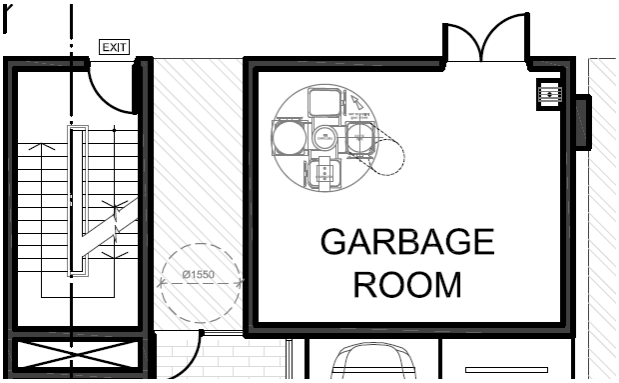
OPTIONAL EQUIPMENT

ELEPHANTS FOOT SUPPLY BALERS SUITABLE FOR BALING CARDBOARD PRODUCT IN COMMERCIAL, RETAIL AND RESIDENTIAL AREAS, BALED PRODUCT REDUCES THE REQUIREMENTS FOR ADDITIONAL COLLECTION EQUIPMENT. STATE OF THE ART COMPACTORS ARE ALSO AVAILABLE IN AUGER, BLADE AND ECO MODELS.

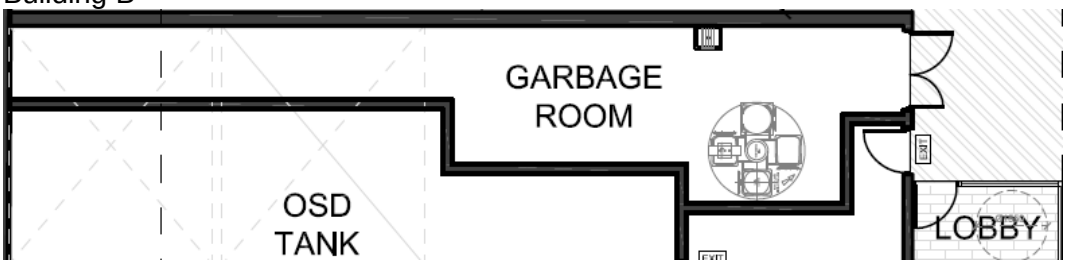
TYPICAL 5-BIN 240L CAROUSEL WITH COMPACTOR
SCALE NTS

APPENDIX 4- WASTE ROOMS

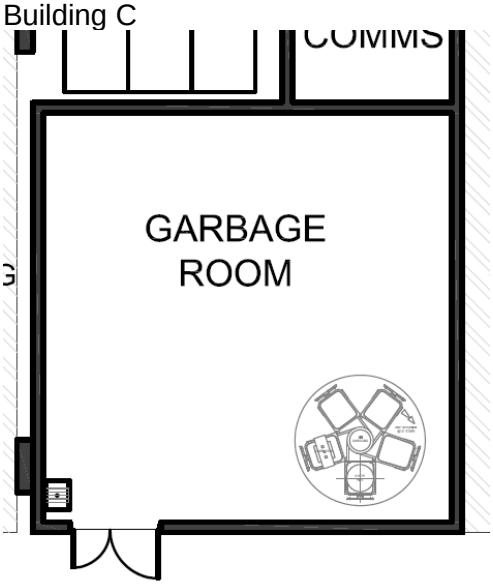
Building A



Building B



Building C



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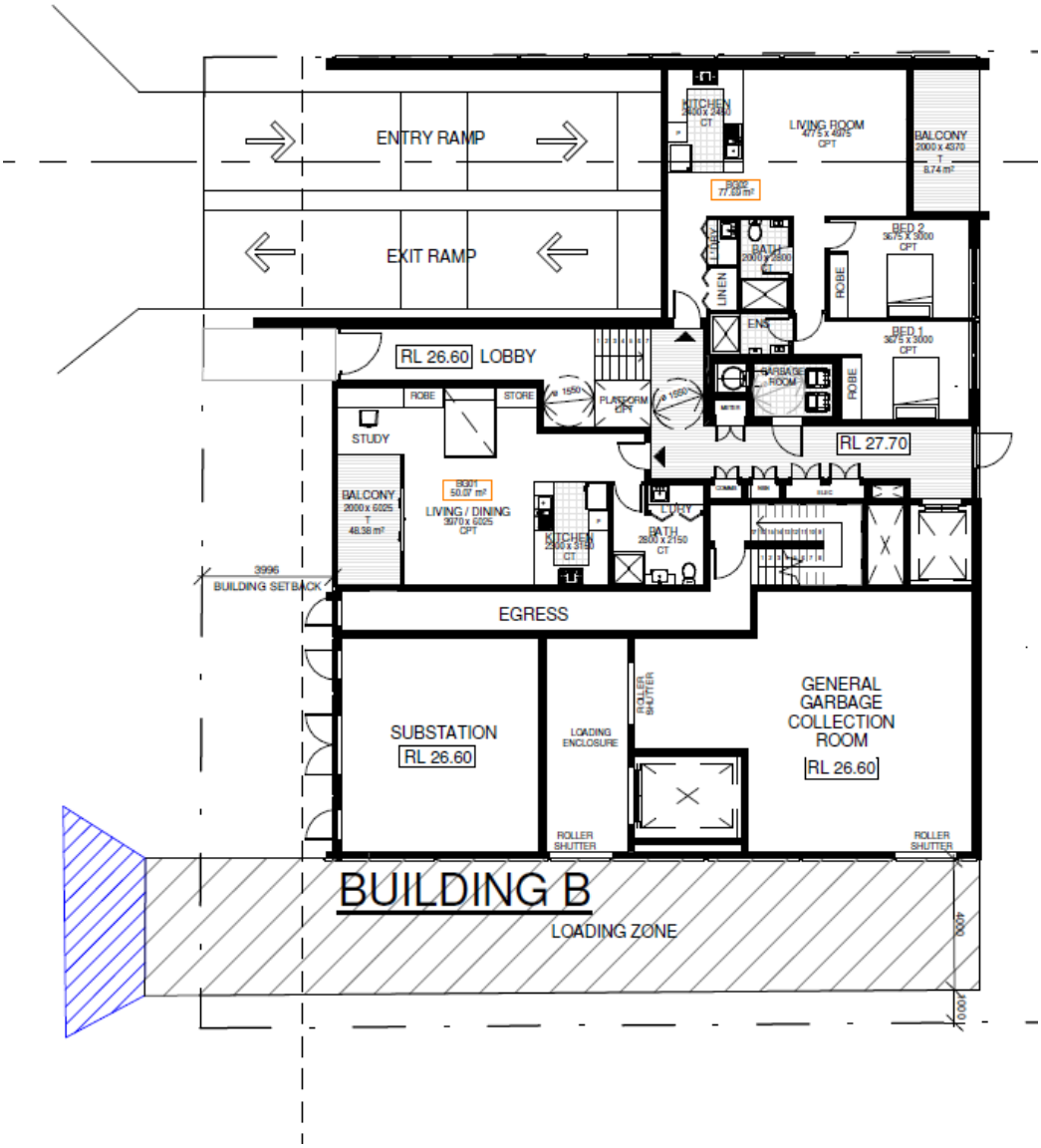
APPENDIX 5 – GARBAGE COLLECTION AREA BUILDING B



Excerpt: DWA Drawing No 08 Rev I – Ground Floor Plan

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