WASTE MANAGEMENT PLAN

Prepared by:

GREENGATE DEVELOPMENT PTY LTD

INTEGRATED AGED CARE AND RETIREMENT DEVELOPMENT
VILLAGE GREEN PENRITH
PENRITH NSW 2750

DECEMBER 2018

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REVISIONS

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A	1	Dec-18	S MacDonald			
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Authorised By:
Date:

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EXECUTIVE SUMMARY

This waste management plan relates to the management of waste generated by the proposed integrated aged care development located at 220-230 Derby Street & 1-7 Reserve Street, Penrith.

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 where possible.

The purpose of the waste management plan is threefold:

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.

The proposal is considered a part commercial and part residential operation and therefore waste and recycling will be guided by the services and acceptance criteria of the Penrith City Council as well as independent waste and recycling service providers.

Training all staff to observe eco-efficient practices and procedures will offer opportunities to understand the various technologies, processes and procedures utilised in the management of the facility. Training enhances staff acceptance and encourages staff involvement and innovation.

The waste management strategy for the proposed is summarised on the following pages.

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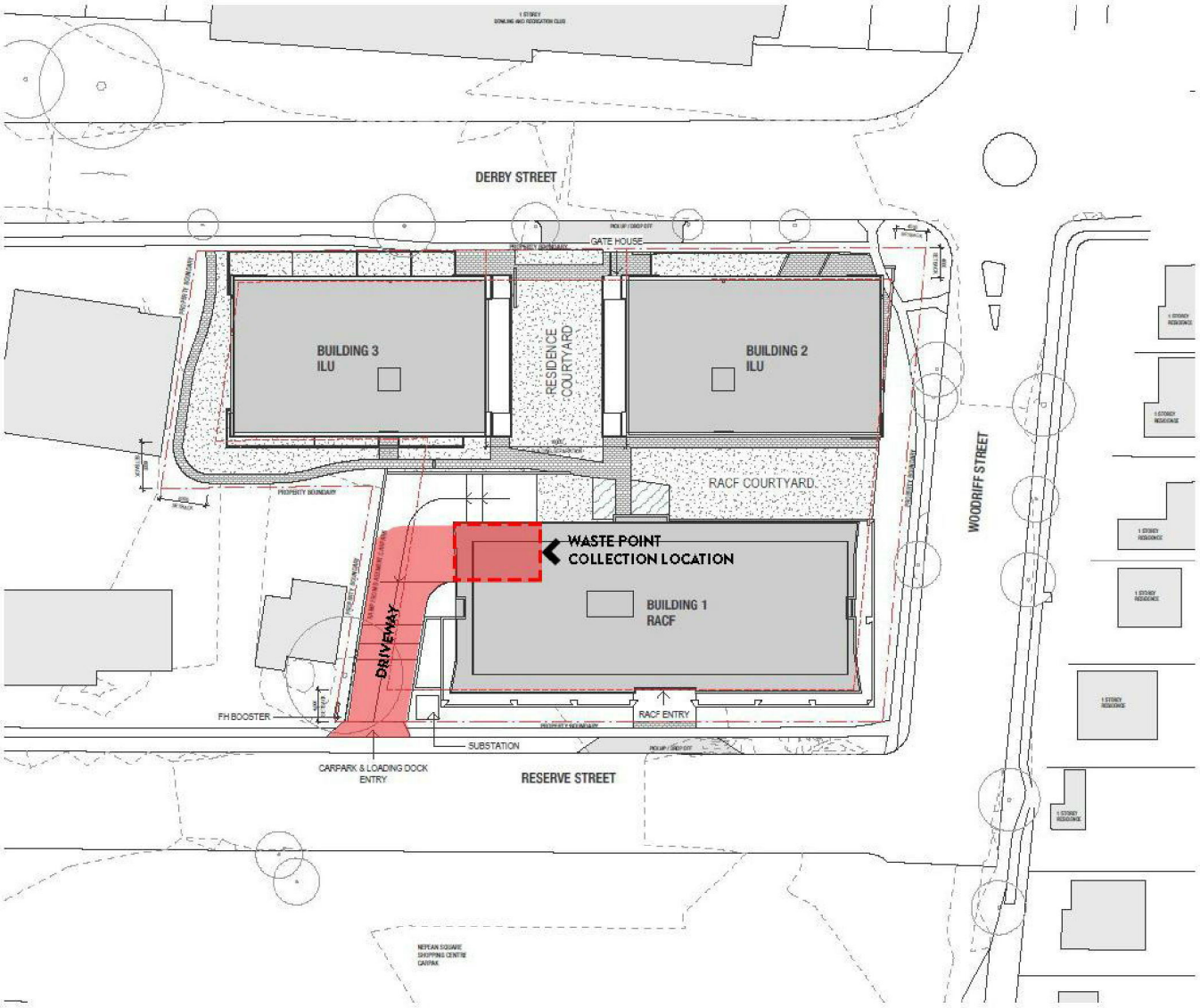
Current Masterplan (Appendix 5)



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Building 1 RACF Waste Strategy Summary

WASTE STRATEGY						
BUILDING 1 RACF (120 beds); Kitchen, Laundry, Office & Common Area	General Waste (Wet and Dry)	Comingled Recycling	Cardboard Box Recycling	Medical and Sanitary	Trade	Green
Waste Generation Rate	• 5 Litre per bed per day (including AHP) plus 200 Litres per day other areas e.g. kitchen	• 2 Litre per bed per day plus 150 Litres per day other areas e.g. kitchen	• Assume 4 x 50kg Hopper Bags	• Varies	*Refer to Kitchen Strategy*	• Minimal
Strategy	• Nursing staff collect and bag all general waste on all floors of Building 1 • Bagged waste disposed into eDiverter Chute (Waste and Recycling) located in secure BOH • Staff to select waste or recycling • eDiverter disposes to a secure waste room into 1100L bins • Full and empty 1100L bins are rotated from main waste room to loading dock by staff • AHP's are collected and bagged on each floor	• To eDiverter as per general waste but no bagging		• Specialist Contractor to pick up from dirty utility, clean utility and Female WC's as required • Sharps disposal located in clean utility disposed by Specialist Contractor		• 3 x 240L green bins located in main waste room near loading dock • Green waste combined with ILU's • Skips to be used as required
Equipment Required	• 5 x 1100L bins in eDiverter (secure) waste room includes allowances for AHP • 1 x 1100L spare clean bin in (secure) waste room • 240L on floor collection bins and trolleys as required	• 3 x 1100L bins in eDiverter (secure) waste room • 1 x 1100L spare clean bin in (secure) waste room • 240L on floor collection bins and trolleys as required	NOTE: No Baler	• Sharps container fixed to trolley • Sanitary bins in Female WC's		• 3 x 240L bins
Collection	• Once per week by specialist contractor	• Once per week by specialist contractor	• Fortnightly by specialist contractor	• Fortnightly by Specialist Contractor		

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Building 2 & 3 ILU Waste Strategy Summary

WASTE STRATEGY						
BUILDING 2 ILU BUILDING 3 ILU (76 Units)	General Waste	Comingled Recycling	Cardboard Box Recycling	Chemical	Trade	Green
Waste Generation Rate	• 10 Litre per unit per day	• 5 Litre per unit per day	• Varies	N/A	N/A	N/A
Strategy	• Bagged waste disposed into waste chute to basement resident waste room • Staff to manage rotation of 1100L bins	• All recycling to be taken by hand to basement resident waste room located adjacent to lifts	• Large boxes and items can be taken by hand to basement resident waste room • Items from bulk store transferred by ILU staff to main waste room for collection	• Remove by chemical supplier		
Equipment Required	• 5 x 1100L bins in eDiverter waste room • 1 x 1100L spare clean bin in (secure) waste room per building	• 3 x 1100L bins in waste room • 1 x 1100L spare clean bin in (secure) waste room per building				
Collection	• Assume bins are collected once per week • Combine with RACF waste pick up	• Assume bins are collected once per week	• 1 x 240L waste bin • 1 x 240L recycling bin			

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INTRODUCTION

The following waste management plan pertains to a new integrated aged care village being developed at 220-230 Derby Street & 1-7 Reserve Street, Penrith. Greengate will develop, own and operate the entire village which will be developed in a single stage over 1 level of basement.

The development will include all levels of basement including the loading dock area; Building 1 with up to 120 bed residential aged care facility (RACF); Building 2 with 35 independent living units and Building 3 with 41 independent living units.

This waste management plan is an operational waste management plan and will address the completed development only.

The plan outlines measures to achieve the following objectives:

- avoid the generation of unnecessary waste;
- minimise the quantities of wastes generated ending up as landfill;
- recover, reuse and recycle waste generated onsite where possible; and
- aim to achieve Federal and State Government waste minimisation targets in accordance with regional waste plans.

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

- Building 1 with 5 levels providing up to 120 bed Residential Aged Care Facility (RACF), fresh cook kitchen and commercial laundry in 6 storey building;
- Building 2 with 35 ILU in 6 storey building;
- Building 3 with 41 ILU in 6 storey building;
- 76 independent living units in total.

Each section of this development has been examined individually within this report, however; the waste management process must be effectively coordinated between all sections for the system to work.

All figures and calculations are based on area schedules as shown on architectural drawings.

All waste facilities and equipment will be developed to meet the principles outlined and to be in compliance with the Penrith City Council's *Waste and Resource Recovery Strategy (2017-2026)*, Department of Environment and Climate Change, Australian Standards and statutory requirements.

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GENERATED WASTE VOLUMES

This assessment of waste volumes is an estimate only and will be influenced by the proposed 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 management waste as part of the Development Application.

LOCATION, EQUIPMENT AND SYSTEMS USED FOR MANAGING WASTE

The waste management system is summarised as follows:

- ILU receptacles (under bench kitchen bins for garbage and recycling);
- Fresh Cook Kitchen receptacles (BOH, for work/amenity areas);
- Garbage chute with recycling eDiverter for building 1 (with individual level intakes and bin store discharge);
- ILU waste rooms (located in the basement floor);
- Offices and commercial laundry (BOH, for work/amenity areas);
- Bin stores (located at Main Waste room – basement adjacent to loading dock)
- All collection bins (stored within above bin areas)

EDIVERTER

The eDiverter refuse system will be installed in Building 1 and will service the ground level common areas and all RACF floors (including serveries and common areas).

The eDiverter system disposes of both general waste and comingled recycling into a central bin room located in basement. The bin room will contain 1100L bins which would be rotated and managed by village staff. All full bins will be moved to the main waste room for collection.

ILU WASTE RATES

Waste generation rates have been determined using Greengate's experience operating retirement villages (and using commercial development rates from Council Waste Management Guidelines). Where an exact use match is not available a 'best fit' approach has been used to inform the likely waste generation rates adopted for each of the various components of the development as follows:

Waste: 70-75 litres (L) per unit/week
Recycling: 25-30 litres (L) per unit/week
Mobile Garbage bin – MGB (*See Appendix 2)*

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WASTE PER WEEK

Building 1 – 0 units
Building 2 – 35 units @ 70L/unit = 2,800L requires 12 x 240L **OR** 2.5 x 1100L MGB
Building 3 – 41 units @ 70L/unit = 3,280L requires 14 x 240L **OR** 3 x 1100L MGB
+ Additional 1100L Spare Clean Bin for each building

RECYCLING PER WEEK

Building 1 – 0 units
Building 2 – 35 units @ 35L/unit = 1,225L requires 6 x 240L **OR** 1.1 x 1100L MGB
Building 3 – 41 units @ 35L/unit = 1,435L requires 6 x 240L **OR** 1.3 x 1100L MGB
+ Additional 1100L Spare Clean Bin for each building
Assumes co-mingled recycling.

ILU BIN SUMMARY

Total number of bins required for weekly collection:

Waste	8 x 1100L MGB
Recycling	5 x 1100L MGB (commingled)
Green	2 x 240L MGB

Bldg 2	Bldg 3
W 4 x 1100	W 4 x 1100
R 2 x 1100	R 3 x 1100
G 1 x 240	G 1 x 240

NOTE:
It is the responsibility of the waste caretaker/cleaner to monitor the number of bins required for the development. As waste volumes may change according to the development's management and occupants' attitude to waste disposal and recycling, bin numbers and sizes may require altering to suit the building operation. It is recommended that 240L MGB units are used over 1100L MGB where possible for ease of manual handling.

RACF WASTE RATES

Each level of the RACF will have access to the eDiverter bin chute system. All waste other than AHP's will be disposed of through chute system including recycling (co-mingled).

AHP

RACF's generate a significant amount waste of AHP (incontinence pads and disposable nappies.) Pads and soiled waste will be bagged and collected by staff on each floor before being transported in 240L bins via lift to the basement to be deposited in 1100L general waste bins.

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FRESH COOK KITCHEN

Within the kitchen, storage of garbage and recyclable bins is by placement within a bin store dedicated to the kitchen area. As the kitchen is located on the basement level, staff will transport waste and recycling directly to the bin rooms on this floor.

It is recommended the site investigate options for organic recycling. Options include establishing a composting system. Outdoor space is available for a worm farm or compost heap. Paper can be composted, along with fruit and vegetable scraps. This system will require dedicated management by appointed maintenance staff as meat and some other products are not compostable or suitable for worms.

Large cardboard packaging will be flattened and transported to the main waste room for baling by the maintenance provider.

Grease trap waste will be removed by appropriately licensed waste contractors and in accordance with the requirements of Penrith City Council and the Department of Environment, Climate Change and Water. The grease arrestor will be located in the loading dock area with direct access from Burt Street.

WASTE PER WEEK

RACF 120 beds @ 5L/bed/day (including service extras) = 5,600L = 5 x 1100L bins
Note: Bins may be collected daily to reduce bin quantities and odour. 240L MGB recommended for ease of manual handling.

RECYCLING PER WEEK

RACF 120 beds @ 2L/bed/day (including service extras) = 2730L = 3 x 1100L bins

It is recommended that:

- All kitchen waste should be bagged and waste bins should be plastic lined
- Bagging of recyclables is not permitted;
- All waste disposal during operations is via the eDiverter chute;
- Collection services will be contracted to Council or a private recycling and waste service providers and collected by arrangement;
- Arrangements must be made for storing used cooking oil in a bunded area and for its collection by a recycler;
- The kitchen operator will organise grease interceptor trap servicing;

OFFICES AND COMMERCIAL LAUNDRY

It is expected that the contract cleaners/maintenance staff will dispose of bagged waste and recycling in the eDiverter system. Bins will be moved to the main waste room as required.

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It is recommended that all office amenities and work stations should be furnished with suitable recycling and waste facilities. Recycling bins will be located appropriately with signage prominently displayed. Bins will be emptied into the eDiverter system as required.

Washroom facilities should be supplied with collection bins for paper towels.

Paper: Work stations and copy areas are allocated with dedicated paper and cardboard collection bins which can be emptied into the eDiverter.

Commingled (glass/plastic): Staff tea points will be supplied with dedicated comingled bins for the collection of all recyclable glass and plastic items. Maintenance staff will be responsible for sorting emptying bins into the eDiverter comingled recycling.

Other waste: Office facilities 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) etc shall be organised with the assistance of the maintenance staff or cleaners.

RACF BIN SUMMARY

AREA	GARBAGE	RECYCLING	GREEN
RACF	*6 x 1100L MGB	*4 x 1100L MGB	1 x 240L

**Includes provision for kitchen, laundry and office area, as well as additional spare clean bin*

OVERALL DEVELOPMENT BIN SUMMARY

Includes additional spare clean bins for each building and both ILU and RACF requirements.

Bldg 1	Bldg 2	Bldg 3	Totals
W 6 x 1100	W 4 x 1100	W 4 x 1100	14 x 1100
R 4 x 1100	R 2 x 1100	R 3 x 1100	9 x 1100
G 1 x 240	G 1 x 240	G 1 x 240	3 x 240
			23 x 1100L 3 x 240L

WASTE MANAGEMENT SYSTEM

Building 1
A waste chute with a diversion system for garbage and recycling is planned for the RACF in Building 1. Garbage and recycling will be collected in a central waste room to the lift core in basement. Bins will be transferred to the main waste room by the waste caretaker.
Large cardboard packaging will be flattened and collected in a nominated area where it will be transported to the main waste room for baling by the maintenance provider.

Building 1 will be supplied with a collection area (generally in the kitchen) to deposit waste and collect recyclable material suitable for one day's storage. Residents/staff should wrap or bag their waste. Recycling must not be bagged.

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Once putrescibles and recyclable waste streams are separated, the resident or nominated staff/cleaners will carry these items to the conveniently allocated waste compartment housing the chute door and deposit bagged waste and loose recyclables.

Staff will select a recycling or waste function button located on each chute door. Direction on using the diversion system will be prominently displayed on each chute door.

The selection button moves a mechanism that guides either the waste or recycling into the correct collection bin, located in the waste room/s below. If residents or staff on other levels select the same disposal function, they are able to deposit the same waste at the same time i.e. waste system – all doors will open.

If commingled recycling is chosen during a waste disposal operation, staff will be required to wait for the diverter to move from the waste bin to the recycling bin function. A wait time of three to ten seconds is the maximum time delay.

The eDiverter will divert and discharge waste into the 1100 MGB and recycling into the 1100 MGB beneath the bottom chute.

Note: if a power outage is experienced, the operation will default to the waste MGB.

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

There will be one waste chute servicing each level in Building 1 with waste and recycling discharging into collection bins located in the main waste room located on the Ground Floor.

Full waste and recycling bins will be transferred to the main bin store adjacent to the loading dock collection area on the same level.

The caretaker/cleaner will be required to check the 1100L MGB collecting waste and recycling from each chute and diverter, rotate full bins to the storage and collection area, and replace empty 1100L MGB under each operation.

The ground floor level of Building 1 will not have direct access to the eDiverter. Waste and recycling from this floor will disposed by hand to the main waste room by cleaning staff.

AHP waste will be bagged and collected by staff on each floor of Building 1 before being transported in 240L bins via lift to the basement to be deposited in 1100L general waste bins.

Building 2 & 3
ILU residents will also be supplied with a waste chute centrally located on each floor.

ILU residents will be supplied with a collection area (generally in the kitchen) to deposit waste and collect recyclable material suitable for one day's storage. Residents should wrap or bag

their waste. Recycling must not be bagged.

Residents will transfer comingled recyclables to the appropriate bins in the waste room located in the basement near the core of each building. Staff will transfer the bins to the loading dock area for collection as required. It is anticipated a tug will be used to reduce manual handling time.

EDIVERTER SYSTEM

The waste and recycling chutes 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.

Each chute is supplied with a vent exiting at the top of each chute, openings for placement of fire sprinklers on every second level and wash down system.

Council and supplier require that all chutes are installed without offsets wherever possible to achieve best operational outcome for both buildings.

The waste room in Building 1 will be supplied with an eDiverter (waste and recycling diversion system) with garbage and recycling product directed into the appropriate collection MGB.

The room should accommodate the eDiverter system. The typical room size required and advised for each waste room accommodating the chute and diverter system is L5400mm x W2400mm x H2800mm and the waste rooms should be designed to accommodate the waste chute and eDiverter plus operational bins for each shaft operation. Spare bins will be stored in the main bin collection room.

It is recommended that the walls of the shaft area surrounding the chutes and the chute hopper system construction be built to an Rw 50 construction. This is required to ensure acoustic compliance with typically recommended noise levels.

Please note that noise from garbage chutes is not regulated by the BCA. The following are acoustic criteria that are typically recommended as a satisfactory internal noise level in apartments during the use of chute systems:

Space Type	Allowable Maximum Level dB(A)L max
Bedrooms	30
Living Room	35

(Source: Acoustic Logic)

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OTHER WASTE CONSIDERATIONS

MEDICAL

Each of the RACF levels will have dedicated medical waste bins supplied as per the medical waste contractor's recommendations for the site. Waste from out-of-date and partly used medicines, infectious medical wastes, hazardous wastes and radioactive wastes must be disposed of according to specific industry-based regulations.

Medical waste bins will be collected by the appointed contactor on a wheel in/wheel out basis and replacement bins provided on a scheduled collection frequency.

Consideration should be given to a Return Unwanted Medicines campaign for your facility. This is a nationally funded program that encourages the return of unwanted and out-of-date medicines to community pharmacies. The RUM project collects medicines free of charge and sends them on to be incinerated. http://www.returnmed.com.au/

GREEN WASTE

There will be green waste generated by the village green and landscaped garden areas. Any green waste will be collected and removed from site by the maintenance contractor.

CARDBOARD

Cardboard waste will be stored in hopper bags in the waste room to be collected by specialist contractors as there is no baler on site.

COMPOSTING

Consideration should be made for providing space for composting and worm farming. *(see Appendix 2 & 3 – Waste Management Equipment)*

OTHER WASTE STREAMS

Disposal of bulky goods, hard, electronic, liquid waste and home detox (paint/chemicals) etc shall be organised with the assistance of the waste caretaker and its removal coordinated with Council services or via private waste services provider.

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WASTE ROOM AREAS

Each buildings waste room will need to hold all the bins generated weekly, and allow enough room to clean and manoeuvre bins.

The minimum area recommended for main bin store and building waste rooms is as follows:

Main Waste Room: **55m²** (approx. 7.7m width x 7m depth x 3m height) which must be capable of holding all required bins with room for manoeuvring and cleaning and room for the eDiverter. Bin lift room requirements are additional to the above areas depending on equipment specifications.

Building 1: main bin store and building waste room located under building 1 (see above)
Building 2: 4m width x 5m depth x 3m height (waste chute, 4 x 1100L waste, 2 x 1100L recycle)
Building 3: 4m width x 5m depth x 3m height (waste chute, 4 x 1100L waste, 3 x 1100L recycle)

WASTE ROOMS CONSTRUCTION REQUIREMENTS

The garbage room will be required to contain the following facilities to minimise odours, 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 floor surface is flat and even
- All corners coved and sealed 100 mm up, this is to eliminate build-up of dirt
- A hot and cold-water facility provided for washing the bins
- Tap height of 1.6m
- Drain to sewer
- 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
- Optional automatic odour and pest control system installed to eliminate all pest types. This process generally takes place at building handover – building management will contract their system and supplier. Please note that odour systems spraying product directly onto galvanised steel surfaces may cause corrosion.
- All personnel doors are hinged and self-closing
- Appropriate signage prominently displayed on walls and above all bins clearly stating what type of waste or recyclable is to be placed in the bin underneath
- Waste caretaker/cleaners are responsible for waste room signage and further education after building handover
- Waste collection area must hold all bins – bin movements should be with ease of access
- Following waste collection activities, bins shall be returned to the storeroom areas as quickly as practicable.

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- Design and construction of waste facilities will conform to the Building Code of Australia, Australian Standards and local laws
- Childproofing and public/operator safety shall be assessed and ensured
- Signage directing chute operations regarding waste and recycling will be posted on each chute door
- All waste bins hidden from external view and stored in the designated onsite areas
- 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.
- All chute doors on all levels will be labelled with signs encouraging occupants to recycle and minimise their waste.
- Separate signage instructing residents on how and where to place recycling will also be placed on each level by building management.
- The bin chutes will be fitted with safety lock out systems that operate when the collection area is being accessed to prevent injury. Final details of the system operations are to be provided at the design development phase and subject to the Safety in Design review.

PREVENTION OF STORMWATER POLLUTION AND 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:

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

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MAINTENANCE

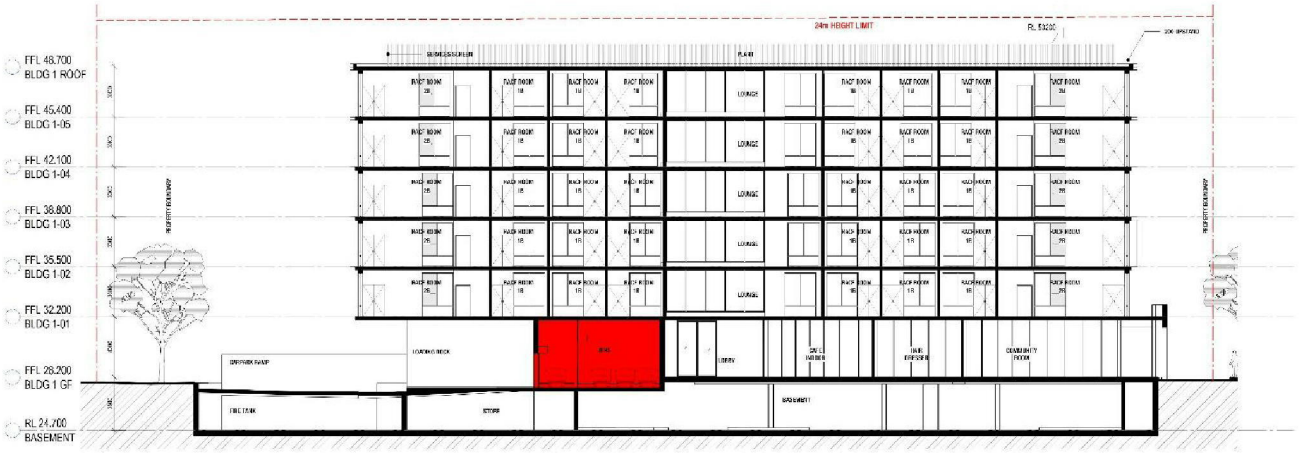
All equipment movements in the room are managed by the maintenance staff/nominated cleaners at all times. No residents or other staff will be allowed to transport waste or recyclables from the waste store room; residents will only transport their waste to the chute door or waste room allocated for their building.

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

- General maintenance and cleaning of the chute doors on each level of Building 1, 2 and 3 (Frequency will be dependent upon waste generation and will be determined based upon building operation)
- Organising, maintaining and cleaning the general and recycled waste holding areas (Frequency will be dependent upon waste generation and will be determined based upon building operation)
- Educating and updating all tenants on sorting methods for recycled waste into appropriate receptacles, ensuring all waste drop-off points safe and accessible to tenants at all times
- Organising both garbage and recycled waste collections as required
- Cleaning, maintenance and exchanging all bins

TRUCK ACCESS

It is assumed that Medium Rigid Vehicles (MRV) used by the private specialist contractors will require access to the site for waste collection. Waste will be collected from the main waste room which is directly accessible from the loading dock with the use of a bin lifter. This process is to be coordinated by the building manager/cleaner as outlined in duties above.



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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.
- Any required manual handling equipment should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply.
- 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.

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USEFUL CONTACTS

Penrith City Council
601 High Street
Penrith NSW 2750
Customer Service: 02 4732 7777
Email: council@penrith.city

Electrodrive (Bin tug/tow)
1/14 Holbeche Road
Arndell Park, NSW 2148
Free call: 1800 333 002
Fax: 1800 031 057
Email: nsw@electrodrive.com.au
Note: Elephants Foot Recycling Solutions does not warrant or make representation for goods or services provided by suppliers.

VEOLIA (Waste Service Provider)
NSW State Office
Cnr Unwin & Shirley Sts
Rosehill NSW 2142
Waste Services: 132 955

JJ Richards & Sons Pty Ltd (Waste Service Provider)
16 Childs Road
Chipping North NSW
Phone: 02 9832 4022
Email: operations.sydney@jjrichards.com.au

SITA (Waste Service Provider)
Customer Service: 13 13 15

Transpacific (Waste Services Provider)
8 – 10 Depot Road
Peakhurst NSW
Customer Service: 13 13 19

LO (MGB Supplier)
Customer Service: 1300 364 388

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

GLOSSARY

BALER - A device that compresses waste into a mould to form bales which may be self-supporting or retained in shape by wire ties and strapping.

CHUTE – A ventilated, essentially vertical pipe passing from floor to floor of a building with openings as required to connect with hoppers and normally terminating at its lower end at the roof of the central waste room.

COMPACTOR – A machine for compressing waste into disposable or reusable containers.

HOPPER – A fitting into which waste is placed and from which it passes into a chute or directly into a waste container. It consists of a fixed frame and hood unit (the frame) and a hinged or pivoted combined door and receiving unit.

MOBILE GARBAGE BIN (MGB) – A waste container generally constructed of plastic with wheels with a capacity in litres of 120, 240, 660, 1000 or 1100, 1500 or 1200.

EDIVERTER – System designed to fit under a waste chute in the garbage room eliminating the need to allocate an area on each building level to house recycling bins or a second chute.
Specification:

- Split system body 5mm plate with two bottom outlets
- Shut out door with manual override to close off chute fitted with fusible link
- Internal diverter plate 10mm activated by a cylinder
- All associated connections
- PLC control box in garbage room, programmed to operate diverter and lock out doors
- 2 x six-core 24-volt cables mounted to the external chute pipes
- All chute doors fitted with electronic lock out solenoid
- Above every door at each level – four button operating switchboard
- Electronic connections at each station

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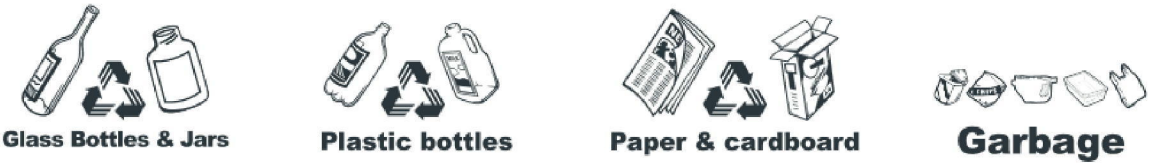
APPENDIX 1 – STANDARD SIGNAGE

WASTE SIGNAGE

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the DECC. Standard wall posters and bin lid stickers are available for download and printing from the Local Government section of the DECC website www.environment.nsw.gov.au, in black and white and appropriate coloured versions where applicable.

Example wall posters

Example bin lid stickers



SAFETY SIGNAGE

The design and use of safety signs for waste rooms and enclosures should comply with AS 1319 Safety signs for the occupational environment. Safety signs should be used to regulate and control safety related to 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 services provided.

Examples of Australian Standards:

Australian Standards are available from the SAI Global Limited website (www.saiglobal.com).

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APPENDIX 2 – WASTE MANAGEMENT EQUIPMENT

Please note Brisbane City Council's preferred containers for general waste in multi-unit residential buildings are 240L MGBs. Dimensions are as per below table.

Garbage

Recycling

Green Waste

BIN DIMENSIONS

Bin Dimensions	240L MGB	1100L MGB
Height	1080mm	1470mm
Depth	735mm	1245mm
Width	580mm	1370mm

GARBAGE ITEMS

All domestic wastes (except recyclables and green waste)

RECYCLING ITEMS

Glass bottles and jars - PET, HDPE and PVC plastics;
Aluminium, aerosol, and steel cans;
Milk and juice cartons, soft drink, milk, and shampoo containers;
Cardboard, junk mail, newspapers and magazines.

GREEN BIN ITEMS

Flowers;
Lawn clippings;
Leaves;
Twigs, pruning's and weeds.

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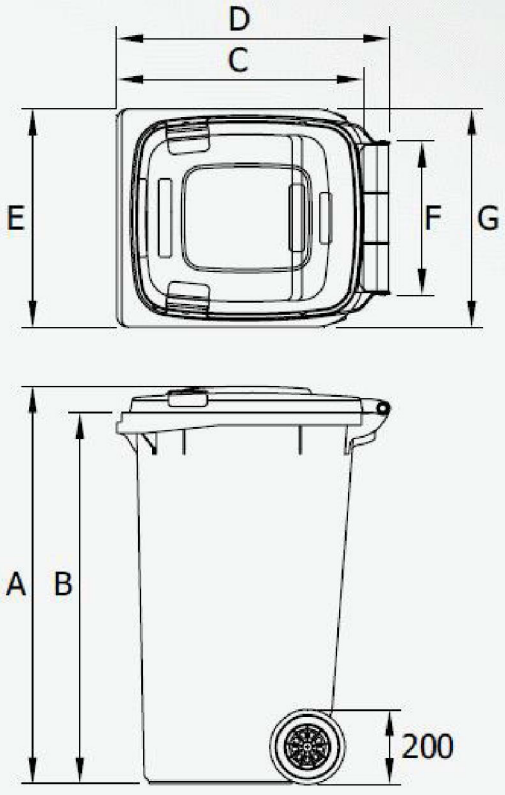
SULO MGB DIMENSIONS

Dimensions - Weights - Standards

- Nominal volume: 240 litres
- Net weight: approx 13 kg
- Max load: 96 kg
- Permitted total weight: 110 kg

A	1060 mm	D	730 mm	G	550 mm
B	990mm	E	585 mm		
C	660 mm	F	400 mm		

Measurements to be used as a guide only – variations will occur



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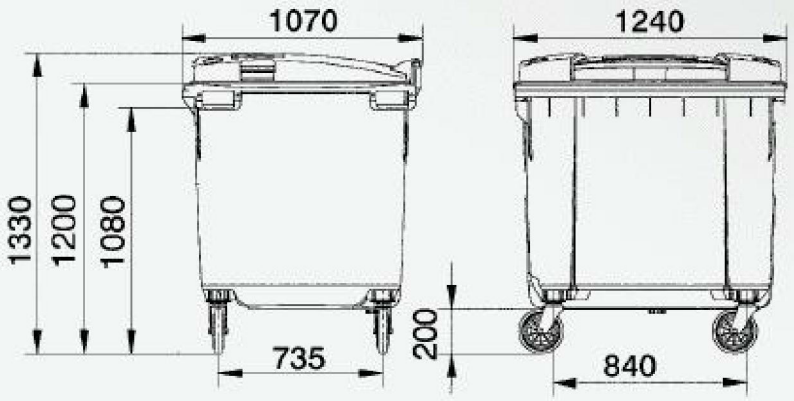
Dimensions - Weights - Standards

Nominal volume:	1100 litres
Net weight:	approx. 65 kg
Max. load:	440 kg
Permitted total weight:	510 kg

Measurements to be used as a guide only -variations will occur



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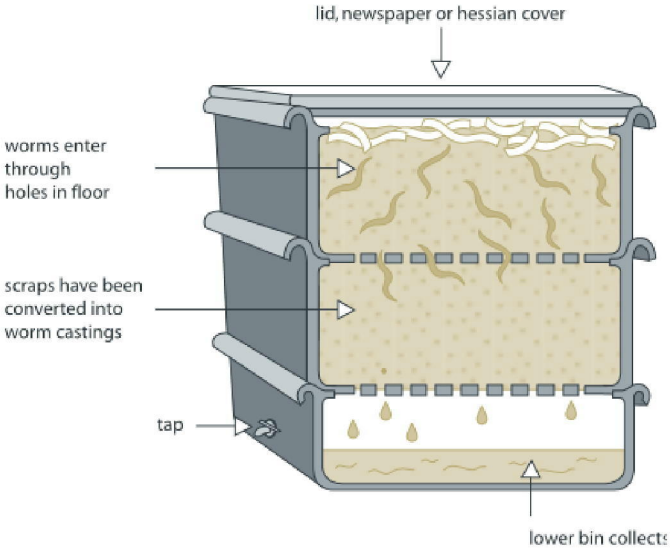
APPENDIX 3 – WORM FARMS

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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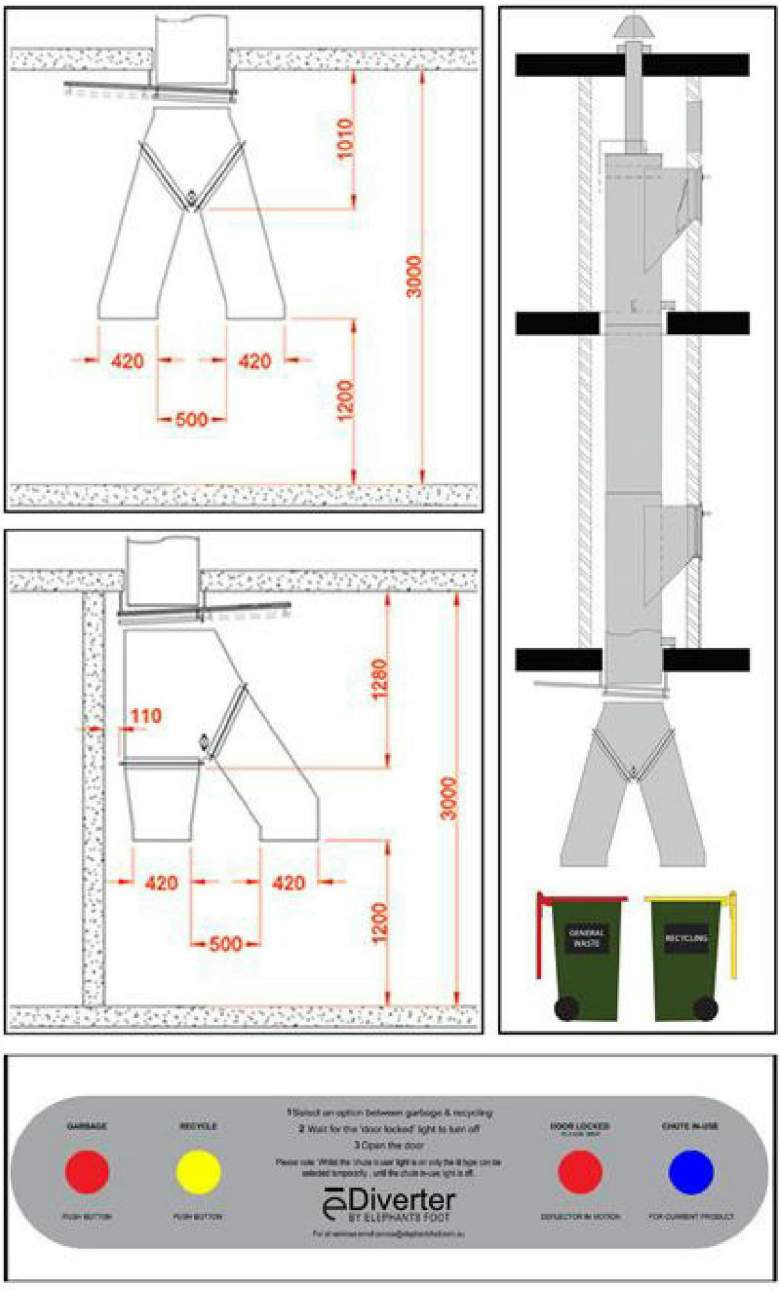
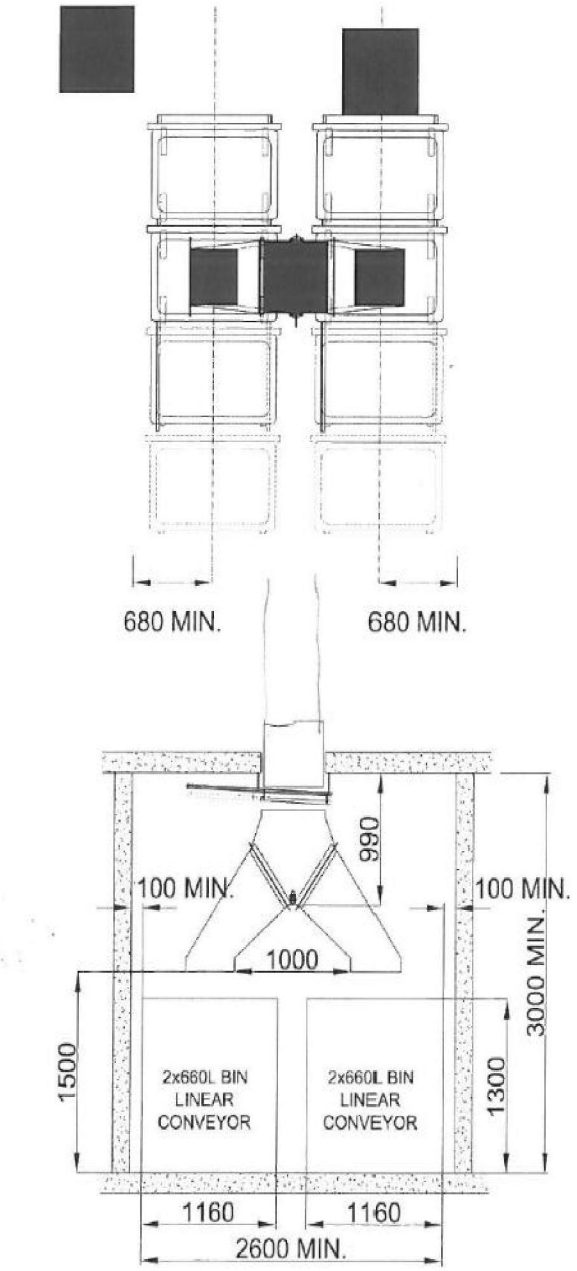
APPENDIX 4 – EDIVERTER





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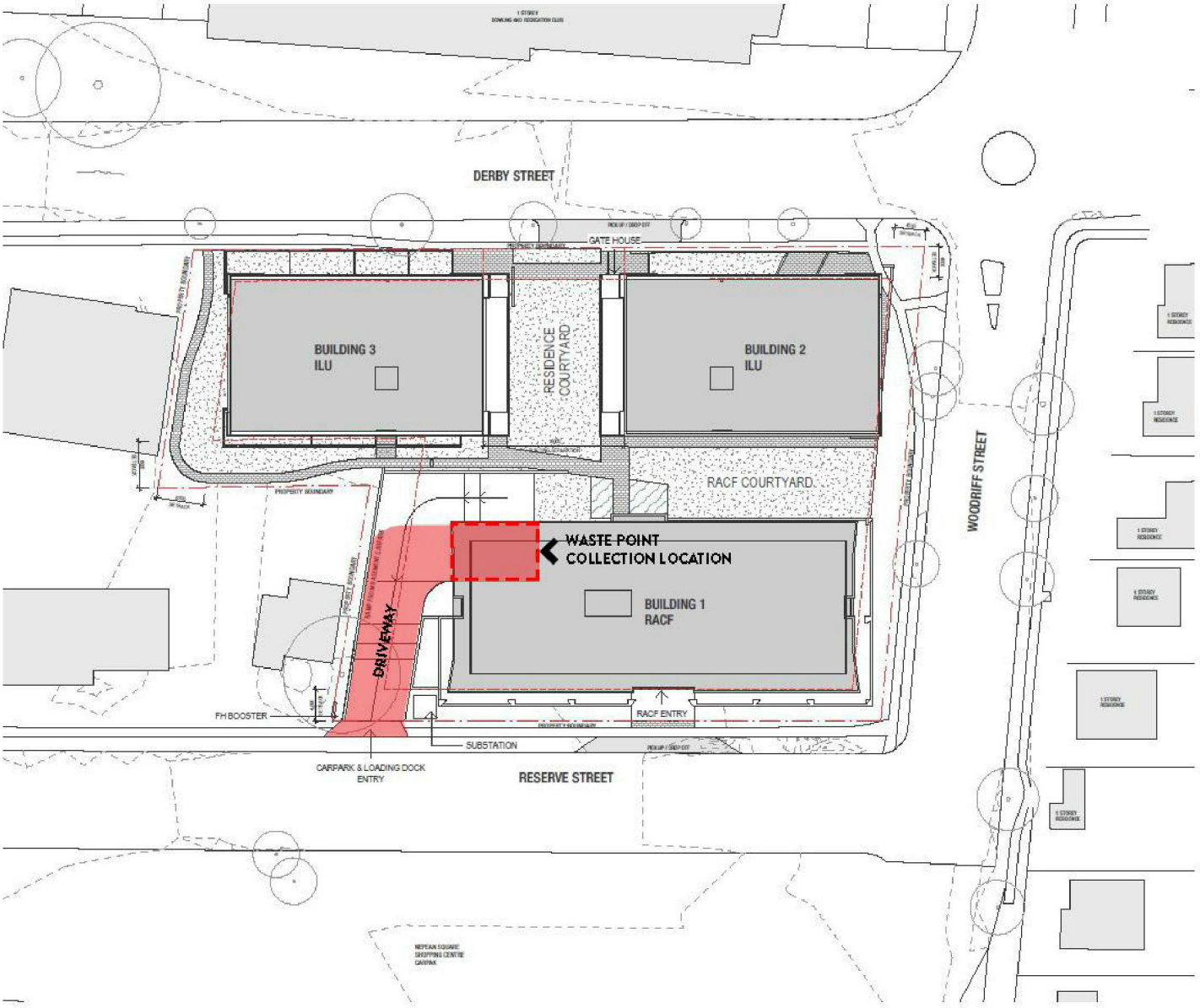
APPENDIX 5 – CURRENT MASTERPLAN



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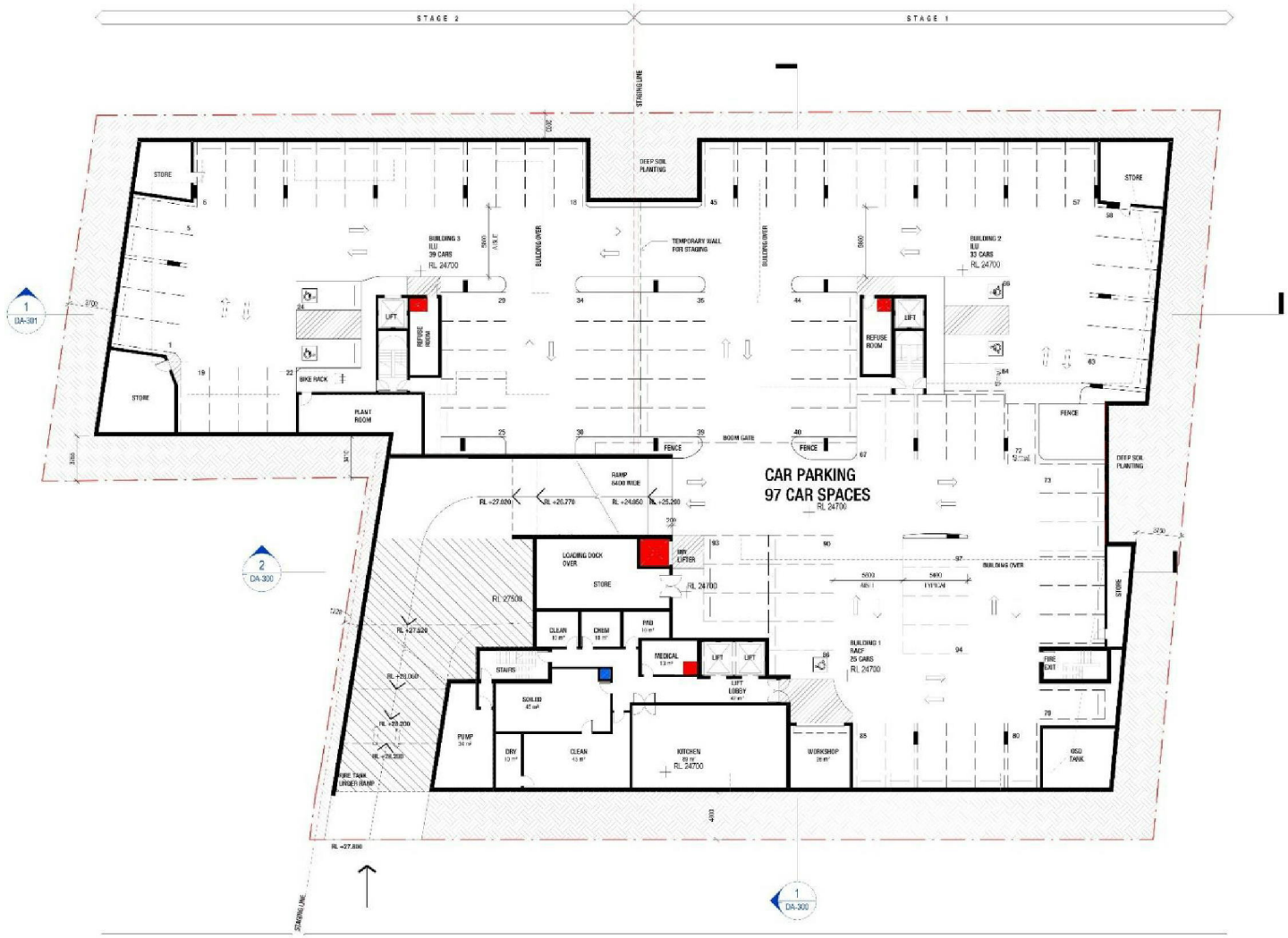
APPENDIX 6 – WASTE LOCATION DRAWINGS

BASEMENT



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GROUND FLOOR

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APPENDIX 7 – MOVEXX

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