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213-215 Spencer Street, Albany WA 6330

OPERATIONAL WASTE MANAGEMENT PLAN

Proposed Mixed-Use Development

Commercial & Residential

Client - H+H Architects

Revision - 1B

Prepared for - City of Albany - April 2023

CONTENTS

INTRODUCTION	4
BACKGROUND & EXISTING CONDITIONS	5
PROPOSED DEVELOPMENT	7
ANTICIPATED WASTE GENERATION, STORAGE & COLLECTION	7
WASTE GENERATION.....	7
TABLE 1: TYPICAL GARBAGE, RECYCLING & ORGANIC GENERATION RATES FOR MIXED-USE DEVELOPMENTS..	7
WASTE WITHIN OVERALL DEVELOPMENT	8
WASTE STORAGE AND HANDLING OF WASTE STREAMS	8
TABLE 2: TYPICAL MEASUREMENTS FOR WALGA (MOBILE GARBAGE BINS) MGB'S.....	9
WASTE COLLECTION (COUNCIL KERBSIDE COLLECTION)	16
WASTE COLLECTION (PRIVATE ON-SITE COLLECTION)	17
AMENITY	18
NOISE	18
VENTILATION	18
SECURITY & COMMUNICATION STRATEGY.....	18
WASTE STORAGE ENCLOSURES & CLEANING FACILITIES.....	18
PREVENTION OF VERMIN	18
MISCELLANEOUS	19
COMMUNAL COMPOSTING FACILITY.....	19
INTERNAL (RESIDENTIAL) WASTE STORAGE.....	19
ORGANIC (FOOD/GREEN) WASTE.....	19
BULKY WASTE	19
E-WASTE	19
APPENDIX A – SITE PLANS	20

FIGURES

FIGURE 1: LOCATION OF THE SUBJECT SITE	6
FIGURE 2: AERIAL VIEW OF THE SUBJECT SITE	6
FIGURE 3: GUIDELINES FOR MGB KERBSIDE PLACEMENT	10
FIGURE 4: GUIDELINES FOR RESIDENTIAL WASTE PLACEMENT WITHIN THE RECYCLING & FOGO MGB'S.....	11
FIGURE 5: GUIDELINES FOR RESIDENTIAL WASTE PLACEMENT WITHIN THE GENERAL MGB'S & VERGE WASTE..	12
FIGURE 6: GUIDELINES FOR WASTE PLACEMENT WITHIN THE COMMERCIAL MGB'S	13
FIGURE 7: SCALED DIAGRAM OF THE WASTE STORAGE ROOM	15
FIGURE 8: DIAGRAM OF A TYPICAL HRV WASTE COLLECTION VEHICLE	16
FIGURE 9: DIAGRAM OF A TYPICAL SRV WASTE COLLECTION VEHICLE	17

INTRODUCTION

Archer Consultants Pty Ltd was engaged by H+H Architects to prepare a Waste Management Plan (WMP) for approval of a proposed commercial development at 176-238 Marine Terrace, South Fremantle WA.

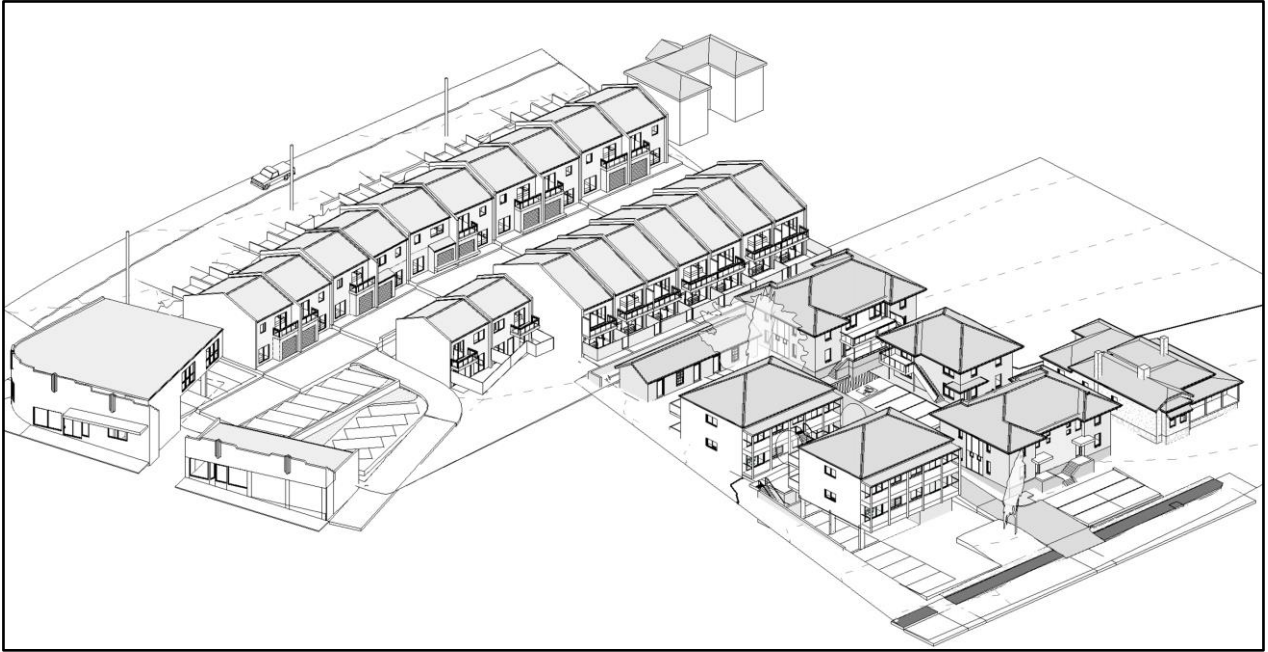
The proposed development consists of;

DEVELOPMENT DETAILS
Commercial Alterations & Additions to Existing Commercial Buildings (Zone A) Commercial Building 1 (GFL Total Area: 240m ² - Tenancy 1 = 185m ²) (FFL Total Area: 314m ² - Tenancy 1 = 71m ² & Tenancy 2 = 187m ²) Commercial Building 2 GFL area: 136m ²
19 x 2-Storey Units Including: 10 x 3-Bed Units And 9 x 2-Bed Units (Zone B)
6 x Affordable Housing Units (Zone C) 4 x 2-Bed Units in Affordable Housing Building 1 2 x 2-Bed Units in Affordable Housing Building 2

In the course of preparing this WMP, the subject site and its environs have been inspected, plans of the development examined, and all relevant council requirements and documentation collected and analysed.

This WMP has been prepared based on the following information:

- Architectural Plans provided by H+H Architects.
- City of Albany Waste Guidelines, WALGA Commercial and Industrial Waste Management Plan Guidelines & EPA Better Practice Guide for Resource Recovery in Residential Developments (2012-2019 Editions).



BACKGROUND & EXISTING CONDITIONS

The subject site is located at 213-215 Spencer Street, Albany WA, on the east side of Spencer Street and south side of Frederick Street corner through to Stirling Terrace to the south, with the nearby land uses are mostly commercial with residential properties to the north.

Figure 1 provides an overview of the area, and its surrounding land uses whilst **Figure 2** provides an aerial view of the immediate area surround the subject site.

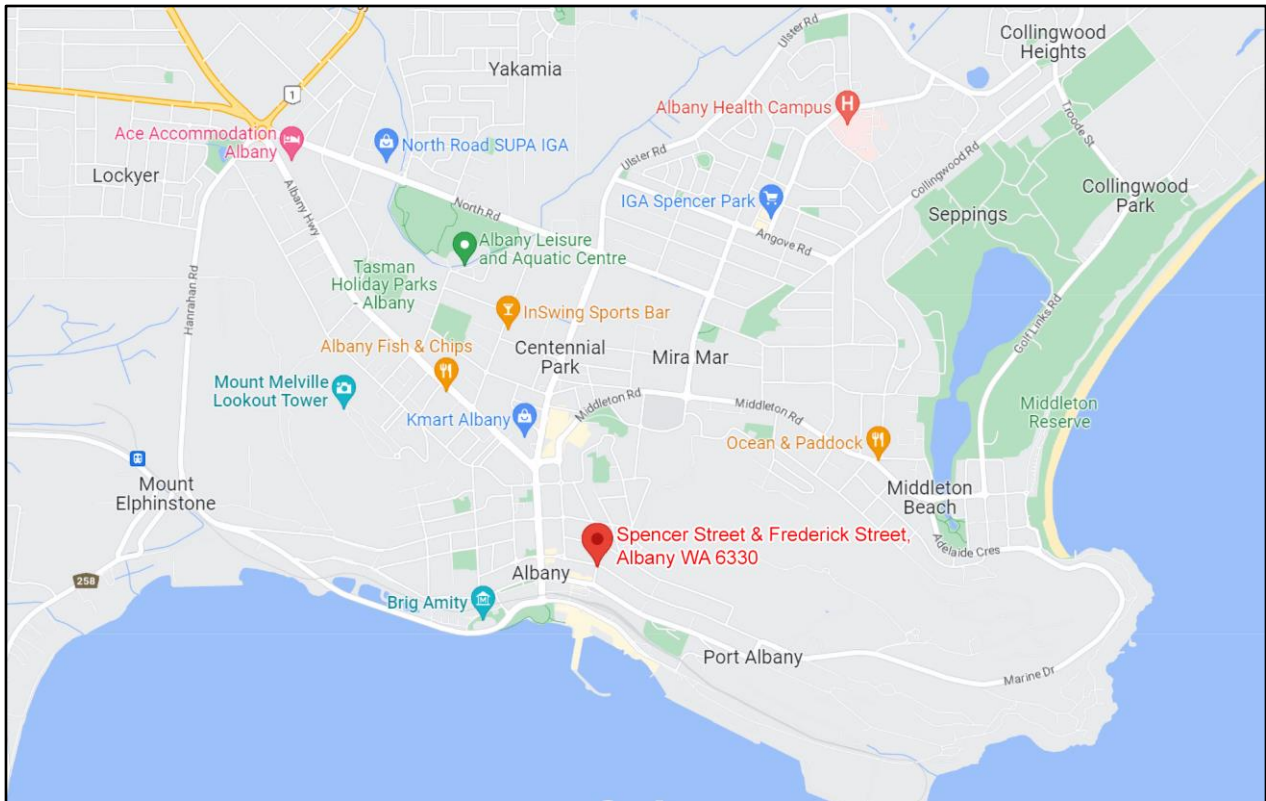


Figure 1: Location of the Subject Site



Figure 2: Aerial View of the Subject Site

PROPOSED DEVELOPMENT

The proposed development consists of mixed-use development. Access to the proposed front entrance of the commercial area and 2-bedroom units will be provided via Spencer Street with the 3-bedroom residential units off Frederick Street, whilst affordable housing is off Stirling Terrace. The Mobile Garbage bins (MGB's) will be stored on the ground level storage areas (**Refer Appendix A**).

ANTICIPATED WASTE GENERATION, STORAGE & COLLECTION

Residential waste collection for Stirling Terrace kerbside collection should be provided by council waste services, whilst the communal residential waste area and commercial waste areas should be collected on-site, by Albany's private waste service providers.

Waste Generation

As per the City of Albany Waste Guidelines, WALGA Commercial and Industrial Waste Management Plan Guidelines & EPA Better Practice Guide for Resource Recovery in Residential Developments (2012-2019 Editions).

The waste entitlement for the development consists of: (a) Residential 140L/per/fortnight of general waste, 240L/per/fortnight of recycling waste and 240L/per/fortnight of organic waste. (b) Retail (Under 100m²) is 50L/100m² of floor area per day general waste and 25L/100m² of floor area per day recycling waste. (c) Retail (Over 100m²) is 50L/100m² of floor area per day general waste and, 50L/100m² of floor area per day recycling waste (Inclusive of paper & cardboard waste).

The following table illustrates the typical garbage, recycling & organic generation rates.

Table 1: Typical Garbage, Recycling & Organic Generation Rates for Mixed-Use Developments

Type of Premises	General Landfill Waste	Commingled Recycling Waste	Organic FOGO Waste
Residential Dwellings	140L/per/fortnight	240L/per/fortnight	240L/per/fortnight
Retail (Under 100m ²)	50L/100m ² floor area/day	25L/100m ² floor area/day	N/A
Retail (Over 100m ²)	50L/100m ² floor area/day	50L/100m ² floor area/day	N/A

NOTE: Generation rates are based on generation rates within the City of Albany Waste Guidelines, WALGA Commercial and Industrial Waste Management Plan Guidelines & EPA Better Practice Guide for Resource Recovery in Residential Developments (2012-2019 Editions). Actual usage can vary and may be generated at a reduced rate. Management will monitor all waste requirements and handling due to the on-going operations of commercial business. Accessing any needs for waste management plan revisions.

Waste within Overall Development

Using the garbage and recycling generation rates above, the following can be calculated;

Retail (Under 100m²): (71m²) (7 days a week)

- 50L/100m² of floor area per day general waste = 248.5L per week (uncompacted)
- 25L/100m² of floor area per day recycling waste = 124.25L per week (uncompacted)

Retail (Over 100m²): (185m²) (187m²) (136m²) (7 days a week)

- 50L/100m² of floor area per day general waste = 1,778L per week (uncompacted)
- 50L/100m² of floor area per day recycling waste = 1,778L per week (uncompacted)

Total Commercial Waste = General Waste 2,026.5L & Recycling Waste 1,902.25L

Residential Dwellings (25)

- 140L/per/fortnight of general waste = 3,500L per fortnight (uncompacted)
- 240L/per/fortnight of FOGO waste = 6,000L per fortnight (uncompacted)
- 240L/per/fortnight of recycling waste = 6,000L per fortnight (uncompacted)

Waste Storage and Handling of Waste Streams

Based on the total waste generated by the development, the following Mobile Garbage Bins (MGB's) should be provided:

Residential Units (19) (Private Collection On-Site Communal Storage/Collection Area)

- 10 x 140L General Waste MGB – collected and emptied once a week.
- 10 x 240L FOGO Waste MGB – collected and emptied once a week.
- 10 x 240L Recycling Waste MGB – collected and emptied once a week.

Residential Affordable Housing (6) (Council Collection Sterling Terrace Kerbside)

Recycling is collected on the alternating weeks to General & FOGO Waste.

- 6 x 140L General Waste MGB – collected and emptied once a fortnight.
- 6 x 240L FOGO Waste MGB – collected and emptied once a fortnight.
- 6 x 240L Recycling Waste MGB – collected and emptied once a fortnight.

Commercial Tenancies (Private Collection On-Site Storage/Collection Area)

- 1 x 1,100L General Waste MGB – collected and emptied twice a week.
- 1 x 1,100L Recycling Waste MGB – collected and emptied twice a week.

NOTE: Bottles are not permitted to be emptied into garbage bins after 10.00pm on any night or before 7.00am on any day. **E-Waste** is expected to be minimal therefore, all waste will be placed in a small impermeable surface container and management/residents will organise for the E-Waste to be taken to a registered E-Waste Re-Processor as required.

The following table illustrates the typical dimensions of the MGB's mentioned above.

Table 2: Typical Measurements for WALGA (Mobile Garbage Bins) MGB's.

Size (L)	Height (mm)	Width (mm)	Depth (mm)	Footprint (m²)
140L	1,065	500	540	0.27
240L	1,080	580	735	0.43
1100L	1,470	1,370	1,245	1.7

Let's sort what goes where

This is your guide to the City of Albany's waste services for households.

You'll find information here on what goes in each bin, verge collections, and what you can drop off at Fossicker's Tip Shop.

Households in the urban area receive a kerbside waste collection, while residents in rural areas have access to Rural Transfer Stations.

We can all help look after our beautiful Albany community by reducing the waste we generate and sorting our waste correctly. Together, we can achieve our goal of diverting 60% of our waste from landfill by 2030.



Putting your bins out for collection

If you need assistance in taking your bins to and from the kerbside, please contact us about our Assisted Kerbside Bin Service.



Figure 3: Guidelines for MGB Kerbside Placement

What can go into your recycling bin?

The items in your recycling bin are sorted, baled and sold to be turned into new products.

THREE EASY RECYCLING RULES

- Rinsed
- Loose in bin
- Lids off

IMPORTANT INFORMATION

- No soft plastics
- No batteries or hazardous waste
- No clothing or rope
- No dirty containers

Excess household recycling can be dropped off for free at Fossicker's Tip Shop at the Hanrahan Road Waste Facility - or you can contact the City of Albany for information on options for an extra bin collection.

RECYCLE THESE 5
plastic bottles & containers, glass bottles & jars, cans, paper and cardboard





PAPER
Newspaper, office paper, magazines

GLASS BOTTLES AND JARS
Rinsed and lids removed

CARDBOARD
Flattened

PLASTIC BOTTLES AND CONTAINERS
Rinsed and lids removed

CANS
Aluminum and steel

Collected fortnightly

What can go into your FOGO bin?

The food organics and garden organics that go in your FOGO bin are Earth-cycled into good quality compost.

IMPORTANT INFORMATION

No plastic bags, food packaging or stickers. These items contaminate the compost.

Excess garden waste can be taken to Soil Solutions on John Street, Milpara. Fees apply, or you can use your ratepayer Green Waste Pass.

COMPOSTABLE LINERS ONLY
Look for this symbol:



E





USED PAPER PRODUCTS
Including paper towel, tissues, shredded paper and cardboard (such as pizza boxes)

PET POO

GARDEN WASTE
Including small branches

ALL FOOD WASTE
Including meat and bones

Collected fortnightly
with additional weekly collection between mid-December and mid-February

Recycling & FOGO bins

Figure 4: Guidelines for Residential Waste Placement within the Recycling & FOGO MGB's

What can go into your general waste bin?

The things in your general waste bin are sent to landfill.

IMPORTANT INFORMATION

Do not place batteries, electronic waste, lightglobes, chemicals, paint and flammable items in your bin.

These items are dangerous and can be dropped at Fossicker's Tip Shop instead.

Excess general waste that doesn't fit in your kerbside bin can be taken to Hanrahan Road Waste Facility. Fees apply or you can use your ratepayer Waste Pass.

Contact the City of Albany for information on options for an extra bin collection.



Collected fortnightly

Verge collections

The City of Albany offers verge collections for bigger household items and larger garden waste.

Bulk waste service

Bulk Hard Waste Collections are held every two years. Residents with a regular kerbside bin service can place up to two 6x4 trailer loads (or two cubic metres) of hard waste on the verge on the advertised collection dates.

Bulk garden organics service

Bulk Green Waste Collections are held every year. Residents with a regular kerbside bin collection can place up to two 6x4 trailer loads (or two cubic metres) of green waste on the verge on the advertised collection dates.

Don't want to wait?

See the Drop off page for more information on where to take your waste.



Figure 5: Guidelines for Residential Waste Placement within the General MGB's & Verge Waste

Recycling

- ✓ All recycling.
- ✓ Steel, tin, aluminium cans, empty aerosols.
- ✓ Clear, brown, green glass bottles / jars (rinsed, no lids).
- ✓ Plastic bottles, soft drink bottles, containers (rinsed, no lids).
- ✓ Carboard boxes, milk, juice cartons.
- ✓ Newspapers, magazines, office paper, junk mail, window envelopes.
- ✓ Council provided compostable caddy liner.

- ✗ Plastic bags, light bulbs, mirrors, drinking glasses, general and food, waste, ceramics, crockery, foam, ovenware, polystyrene, waxed cardboard boxes.

Garbage

- ✓ General waste.
- ✓ Plastic bags.
- ✓ Packets, wrappers, cling wrap, bubble wrap.
- ✓ Nappies, sanitary waste, (wrapped tightly and stored in a well-sealed bag).
- ✓ Animal faeces, bedding, and kitty litter.
- ✓ Foam, polystyrene, and polystyrene.
- ✓ Light bulbs, mirrors, ceramics, cookware, and drinking glasses.
- ✓ Contents of your vacuum cleaner, cotton wool, buds and cigarette ends.

- ✗ Building materials, syringes, oil or paint, gas bottles, hazardous or chemical waste.
- ✗ Medical waste: (speak to your doctor / pharmacy).

Figure 6: Guidelines for Waste Placement within the Commercial MGB's

Please Note: The National Retail Association is assisting the State Government to help businesses transition for the single-use plastics ban which commenced in July 2022.

From 1 January 2022, the [stage one](#) ban includes the following items to reduce plastic pollution:

- Plastic bags with handles
- Plastic laminated paper bags
- Disposable plastic straws and stirrers
- Disposable plastic cutlery, plates and bowls
- Disposable plastic food containers without lids
- Polystyrene food containers and trays
- Balloon releases.

[Stage 2](#) has commenced, with the second set of items being phased out between 1 September 2023 and 1 July 2025. These items include:

- loose and moulded expanded polystyrene packaging
- degradable plastics (plastics designed to break up more rapidly into fragments under certain conditions).
- produce bags
- expanded polystyrene cups and food trays for raw meat and seafood
- coffee cups and lids
- lids for cups, bowls, trays, plates and takeaway food containers
- trays for takeaway food not covered in the Stage 1 ban
- cotton buds with a plastic stem
- microbeads.

For more information visit the [Plastic Ban WA](#).

[WA Plastic Free](#) is a free service to help businesses navigate single-use plastic bans. They provide great support and resources for City businesses.

WASTE COLLECTION (Council Kerbside Collection)

Residential waste collection for Stirling Terrace kerbside collection should be provided by council waste services.

Kerbside Collection: To help ensure bin collection runs smoothly and enables drivers to pick up, empty and replace the bins safely, it's important to:

- Residents will place their bins out on the kerbside (500mm apart) for collection on the day of collection by council on the night before or by 630am.
- Ensure the bins are not overfilled with the lids are shut to avoid spills and to protect it from bugs and animals.
- Leave bins at least one metre between any obstructions (such as trees, cars or poles)

The waste collection vehicle will pull up on Stirling Terrace and wheel the MGB's to/from the kerbside, emptying the MGB's. Once all the MGB's have been emptied and returned to the kerbside, the vehicle will leave in a forward motion. **NOTE:** Tenants will immediately return their waste bins to the waste storage area.

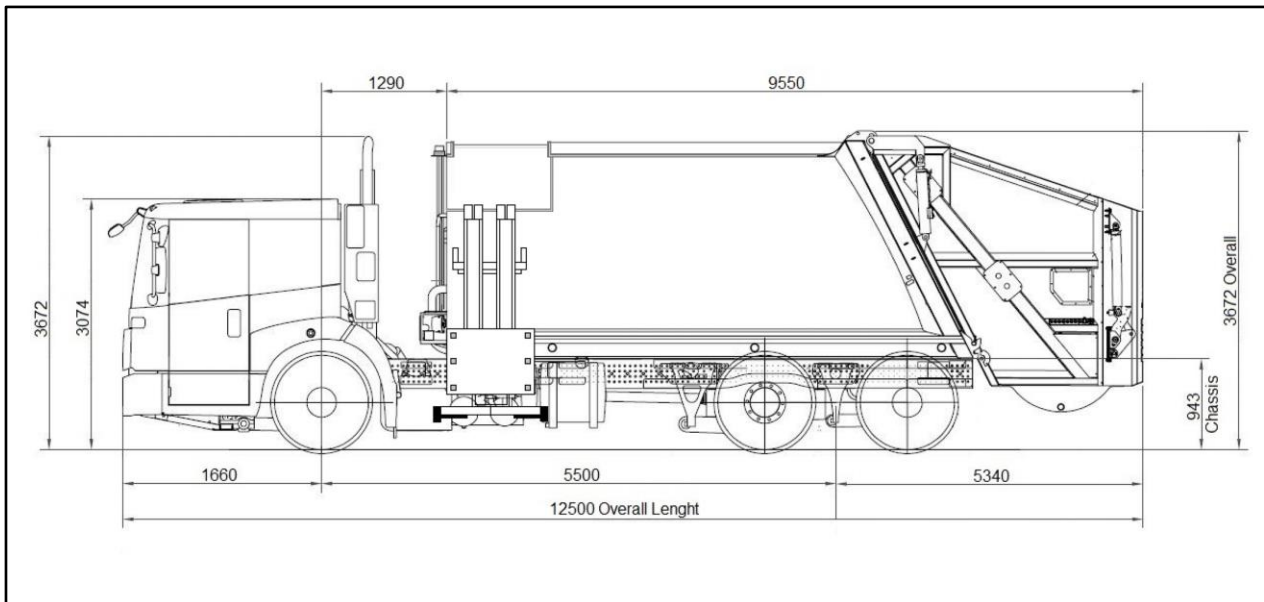


Figure 8: Diagram of a Typical HRV Waste Collection Vehicle

WASTE COLLECTION (Private On-Site Collection)

The communal residential waste area and commercial waste areas should be collected on-site, by Albany's private waste service providers.

On-Site Collection: To help ensure bin collection runs smoothly and enables drivers to pick up, empty and replace the bins safely, it's important to:

- Ensure the bin are not overfilled with the lids are shut to avoid spills and to protect it from bugs and animals.

The waste collection vehicle will enter the property off Spencer Street pulling up next to waste storage area and wheel the MGB's to/from the waste storage area to the waste vehicle, emptying the MGB's. Once all the MGB's have been emptied and returned to the waste storage area, the vehicle will leave in a forward motion exiting onto Spencer Street.

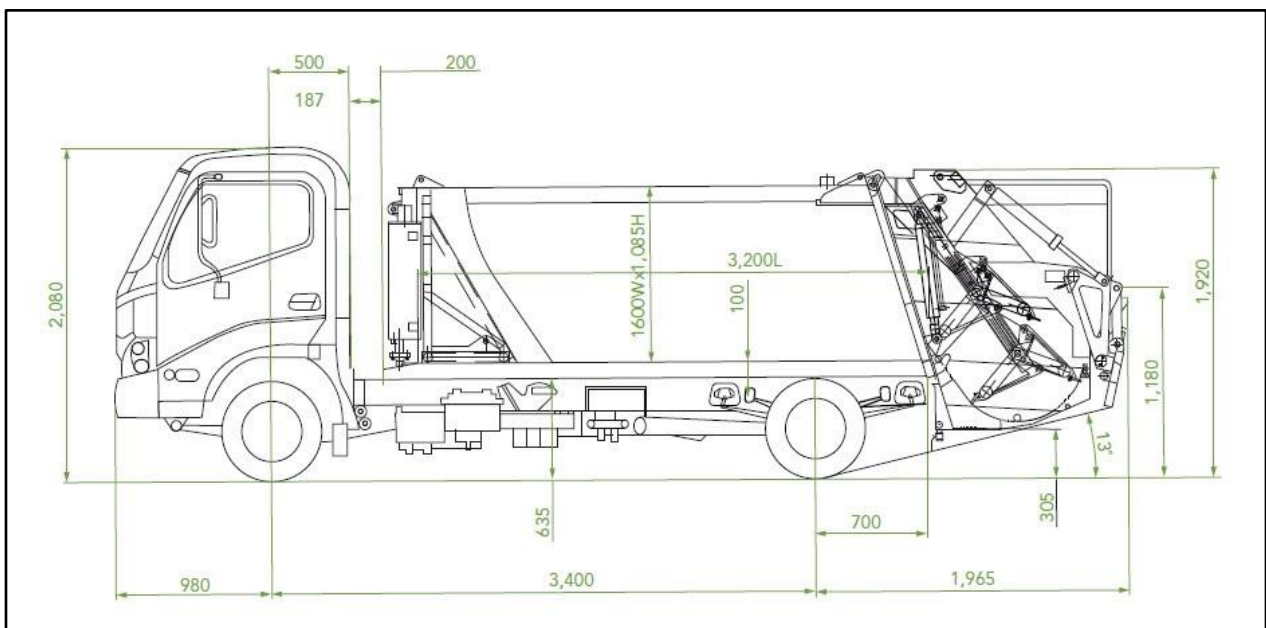


Figure 9: Diagram of a Typical SRV Waste Collection Vehicle

AMENITY

Noise

The only noise generated from the waste management at the property will be that of the MGB's being wheeled to / from the waste vehicle emptying the MGB's. Any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste bin areas will have ample natural ventilation.

Security & Communication Strategy

All MGB's will be secured within the waste storage area.

Residents, Management and Staff will receive detailed documentation detailing all necessary requirements for safe waste management and handling including all relevant contact information.

NOTE: All bin enclosures should have appropriate signage showing acceptable and non-acceptable items for each bin.

Waste Storage Enclosures & Cleaning Facilities

The Body Corp will be responsible for assigning a site manager to keep the MGB's clean within the on-site collection areas whilst council collected bins will be kept clean by the residents.

NOTE: It is recommended that the on-site waste areas be enclosed and consist of; **(1)** Smooth impervious coated/treated ground surface, ensuring the ground is graded to the sewer (100 mm diameter) floor drain outlet. **(2)** Tap and hose (hose cock must be protected from the waste containers) for use of cleaning the MGBs and waste area. **(3)** Waste educational signage with building management contact details.

Prevention of Vermin

The occupants will be advised to not overfill the bins so that the lids are closed at all times. It is suggested to place rat traps in the corners of the waste storage areas.

MISCELLANEOUS

Communal Composting Facility

NOTE: Organic waste is a problem in landfill as it produces methane, a harmful greenhouse gas that is 25 times more potent than carbon dioxide. Turning it into compost reduces the impact on the environment and allows waste to become a usable product. Existing landfill sites are also nearing capacity and the creation of new sites can cause significant detrimental effects through land clearing, loss of habitat for local wildlife, and potential groundwater and soil contamination from the leaching of heavy metals and chemicals. As a commitment to improving waste management methods in support of social and environmental commitments at the local level. 240L Organic Waste MGB's will be available for residents.

Bokashi Anaerobic Composting bins are also available that can be stored indoors. It's a great way to turn your kitchen scraps into rich liquid and semi-solid fertiliser.

Internal (Residential) Waste Storage

It is suggested that sufficient space, should be provided for interim storage of smaller bins for garbage and recyclables. Space should allow for separate storage of recyclables from the garbage streams and segregation of organics waste placed in a kitchen caddy for placement within the organic waste bin.

Organic (Food/Green) Waste

Residential food waste can be placed in the FOGO waste bins. *Please refer to Communal Composting Facility above.* Green waste for common areas will be handled by the gardening contractor.

Bulky Waste

The City of Albany provides verge collections for bigger household items and larger volumes of garden waste. **Bulk Green Waste Collections** are held every year. Residents with a regular kerbside bin service (excluding Cheynes Beach) can place up to two 6x4 trailer loads (or two cubic metres) of green waste on the verge on the advertised collection dates. The next Bulk Green Waste Collection will be held from late May - end June 2023. Details on the collection dates for your area will be delivered to your mailbox soon. **Bulk Hard Waste Collections** are held every two years. Residents with a regular kerbside bin service (excluding Cheynes Beach) can place up to two 6x4 trailer loads (or two cubic metres) or hard waste on the verge on the advertised collection dates. The next Bulk Hard Waste Collection will be held from late May - end June 2023. Details on the collection dates for your area will be delivered to your mailbox soon. Please note waste placed on the verge more than 7 days prior to your scheduled start date or after the truck has passed may result in a litter infringement notice. **NOTE:** Commercial & Residential on-site occupants will call a private contractor.

E-Waste

Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors. E-Waste is expected to be minimal therefore, all waste will be placed in a small impermeable surface container and management will organise for the E-Waste to be taken to a registered E-Waste Re-Processor as required.

APPENDIX A – SITE PLANS

