1 Walkerville Terrace, Gilberton

Waste Management Plan

Date: 26 August 2024

Prepared for:

Citify

Colby Phillips Advisory Pty Ltd

Suite 117, Pirie Street

Adelaide, SA 5000

info@colbyphillips.com.au

Rev.	*Date*	*Description*	*Doc No./Name*	*Originator*	*Approved*
0	15Jun23	For lodgement	WMP	JPH	KC
1	22Jun23	Update tenancy mix	WMP	JPH	KC
2	30Aug23	Council corres added	WMP	JPH	KC
3	14Dec23	Revised townhouses	WMP	JPH	KC
4	26Aug24	New site layout	WMP	JPH	

Distribution List

Joel Wilkinson	Citify
Kent Cook	Citify
Jacqui Stacey	SMF Architects
Chelsea Jurek	URPS

Contents

1 INTRODUCTION

This document presents a waste management plan (WMP) for the 1 Walkerville Terrace Mixed Use Development (the "Development"). The Development is a combination of Commercial and Residential. The Project Proponent is Citify, the Architect is Stallard Meek Flightpath Architects (SMFA), and the Traffic Engineer is Cirqa.

The WMP explains how the Development can manage waste effectively to achieve regulatory requirements and desired design and operating objectives, including those recommended by the South Australian Better Practice Guide (State Guideline) (Zero Waste SA, 2014), the Planning & Design Code (PlanSA, 2024) and Council expectations for waste management in this type of development. The WMP should be read in conjunction with other planning approval documentation for the Development.

2 WASTE SERVICES SUMMARY

The following provides a summary of the waste services proposed at the site:

	Disposal	**Collection by**	**Collection frequency (per week)**				
			General Waste	Recycling	Cardboard	Food Waste	Other
2-storey apartments	Central ground floor bin room 3-bin system	Private Contractor From Loading dock	2	2	-	1	-
Tower apartments	3 x waste chutes at each level General Waste, Mixed Recycling, Food Waste Bulky waste at each level	Private Contractor From Loading dock	2	2	-	2	-
Serviced apartments	2 x waste chutes General Waste & Mixed Recycling Food Waste disposed to ground. level bin room by service staff where applicable. Cardboard disposal (e.g. cartons) to ground level bin room.	Private Contractor From Loading dock	3	2	3	3	2
Restaurants and cafes	Staff dispose waste to bin room. Systems for separation of Food Waste, Cardboard, Mixed Recycling, Landfill waste	Private Contractor From Loading dock					

3 DEVELOPMENT DESCRIPTION

The Development is at 1 Walkerville Terrace, Gilberton in the Town of Walkerville (Council) – see Figure 3-1 below which shows an overview of the site. Per plans provided (Drawings-B1.00 to B4.10 Rev 4, dated 22 Aug 2024), the Development is a mixed use, multi-storey building with frontage to Walkerville Terrace and Northcote Terrace.

3.1 Development metrics

Table 3-1 gives the proposed Development Metrics. In summary, the Development would comprise:

- *Residential 2-storey Apartments*
  - *1 x 1-bedroom apartment*
  - *12 x 2-bedroom apartments*
  - *1 x 3-bedroom apartments*
- *Tower Apartments (Levels 3 – 9)*
  - *34 x 1-bedroom apartments*
  - *38 x 2-bedroom apartments*
  - *33 x 3-bedroom apartments*
  - *11 x 4-bedroom apartments*
- *Commercial Serviced Apartments (Level 1 - 2)*
  - *57 x 1-bedroom serviced apartments*
- *Flexible commercial tenancies (Located at Ground Level)*
  - *1 x Restaurant incorporating the existing Buckingham Arms building (203 m^2)*
  - *1 x Restaurant (262 m^2)*
  - *1 x Café (109 m^2)*
  - *1 x Restaurant (132 m^2)*
  - *1 x Restaurant (288 m^2) / Bar (121 m^2)*
- *Commercial Function Area (Located at Level 1)*
  - *1 x Function Room incorporating the existing Buckingham Arms building (157 m^2)*

The above retail and commercial tenancy profile is based on the Proponent's commercial expectations. The final mix of commercial and retail tenancies would be decided when the building is complete and becomes operational.

Table 3-1 below includes the recommended Waste Resource Generation Rate (WRGR) classification (for each land use) based on the State Guideline (Zero Waste SA, 2014), which are used for estimation of waste and recycling volumes to assess waste storage required for the site.

Table 3-1: Summary of land uses for the Development, their WRGR Description(s) and relevant Development Metric(s). Retail and Commercial tenancies are preliminary assumed uses

Land Use	Description	Site Location	Land Use Type+	Dev. Metric(s)	
Residential	Apartments		High Density Residential Dwelling	14	Dwellings
				28	bedrooms
	Tower Apartments	Level 3 - 9	High Density Residential Dwelling	116	Dwellings
				253	bedrooms
Commercial	Bar/ Restaurant (Buckingham Arms)	Level G	Restaurant / Café	201	m2 GFA
	Serviced Apartments	Level 1 - 2	Hotel or Motel Accommodation	57	bedrooms
	Function Rooms (Buckingham Arms)	Level 1	Showroom	157	m2 GFA
	Restaurant	Level G	Restaurant / Café	242	m2 GFA
	Café	Level G	Light Café	147	m2 GFA
	Restaurant	Level G	Restaurant / Café	110	m2 GFA
	Restaurant	Level G	Restaurant / Café	276	m2 GFA
	Bar	Level G	Bar	121	m2 GFA

+ Land Use Type is based on waste classifications in State Guideline

* Derated Café WRGRs from State Guideline: General waste = -50%, Recycling = -50%, Food Waste = - 50%, 75% activated area

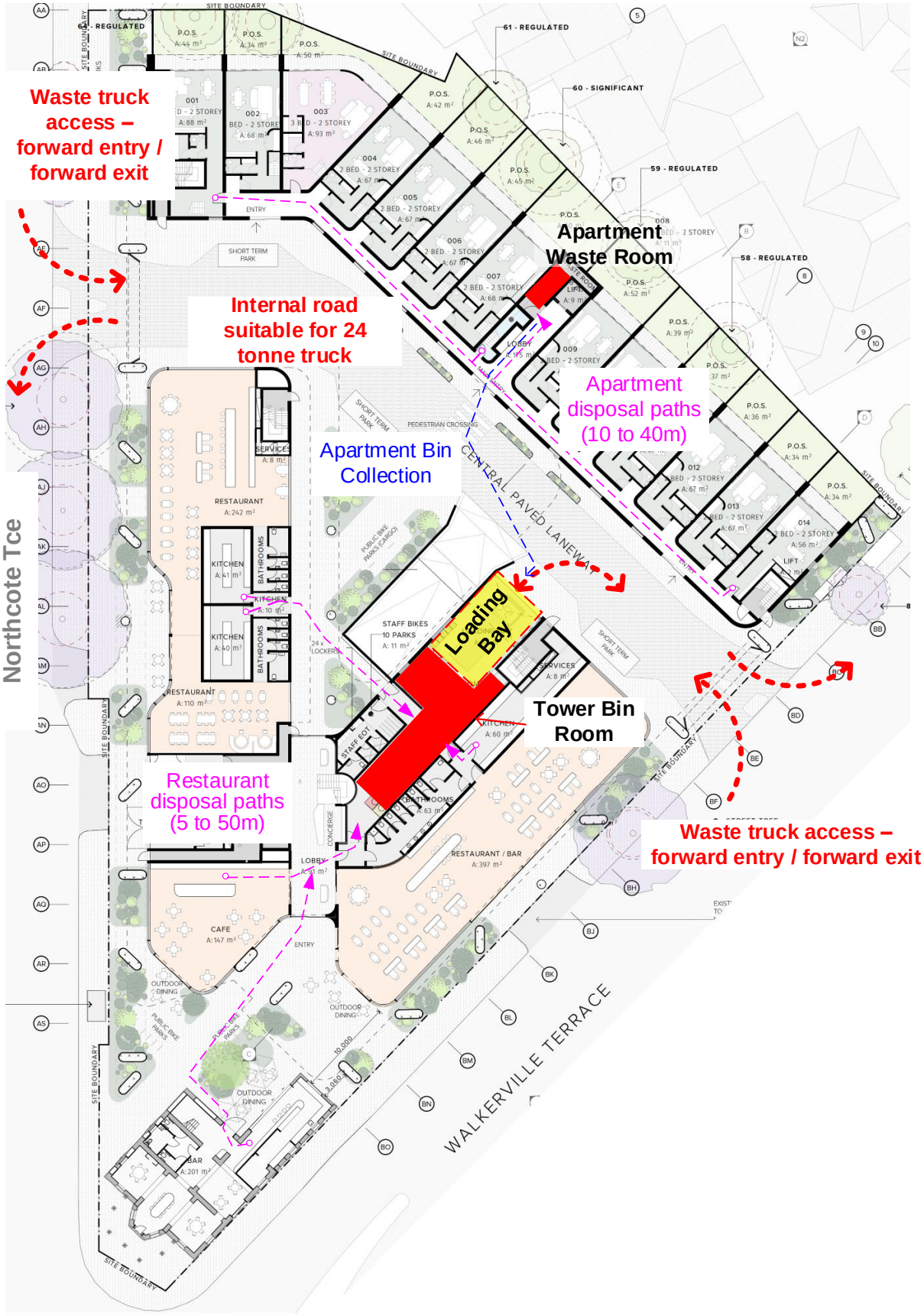


Figure 3-1: Site Overview

4 DESIGN ASSUMPTIONS

4.1 Waste & Recycling Service Provision

Table 4-1 outlines the recommended waste services by land use per Table 3-1. The different waste service classifications listed in Table 4-1 are explained below.

- ***Routine Services –*** These require on-site waste storage and routine and regular collections, and would include services for general waste, dry (comingled) recyclables and food waste.
- ***At-call services –*** These involve non-frequent collections, such as Hard waste and are organised and provided on an as-needed basis.
- ***Maintenance services –*** Some waste items (e.g. lighting in common areas or commercial tenancies, sanitary waste in public/common toilets) would be removed and disposed of (off-site) by the contractor providing the related maintenance service (and hence on-site waste storage is not usually needed or provided).
- ***External Services –*** These are where waste items (e.g. printer cartridges, batteries, lighting) that can be dropped off by tenants/residents at external locations (e.g. Officeworks, waste depot) (and thus, separate on-site waste storage is not usually needed or provided).

All waste collection services for the site (including the residential apartments in the tower) are to be provided by a Private Contractor engaged by the Body Corporate.

4.2 Waste & Recycling Volumes

Table 4-2 estimates expected waste and recycling volumes for the Development (in Litres/week).

- Waste Resource Generation Rates (WRGRs - in the State Guideline) do not exist for sanitary, lighting, printer cartridge or battery waste.
    - Volumes of these waste items, however, are relatively small, and thus, have not been estimated.
- The Light Café tenancy WRGRs are derated Café / Restaurant WRGRs (to reflect the fact a Café is not a full-service restaurant, which the WRGRs in the State Guidelines are based on – refer to Table note).

Table 4-1 Expected or recommended waste & recycling services for the Development

Service Type	Residential		Commercial							
	Apartments	**Tower Apartments**	**Restaurant**	**Bar/ Restaurant (Buckingham Arms)**	**Serviced Apartments**	**Function Rooms (Buckingham Arms)**	**Café**	**Restaurant**	**Restaurant**	**Bar**
Routine (regularly scheduled)	General Waste Recycling Food Organics	General Waste Recycling Food Organics	General Waste Recycling Cardboard Food Organics Recycled deposit containers (OPTION) Cooking Oil (OPTION)	General Waste Recycling Cardboard Food Organics Recycled deposit containers (OPTION) Cooking Oil (OPTION)	General Waste Recycling Minor Food Organics Confidential Paper	General Waste Recycling	General Waste Recycling Cardboard Food Organics Recycled deposit containers (OPTION)	General Waste Recycling Cardboard Food Organics Recycled deposit containers (OPTION) Cooking Oil (OPTION)	General Waste Recycling Cardboard Food Organics Recycled deposit containers (OPTION) Cooking Oil (OPTION)	General Waste Recycling Cardboard Food Organics Recycled deposit containers (OPTION)
At-call (as needed)	Hard/E-waste Printer Cartridges Batteries									
Maintenance (waste removed by contractor)	Sanitary (in-room or public toilets) Lighting (where applicable)									
External (by tenant off-site)	Not applicable									

Table 4-2 Estimated waste & recycling volumes (Litres/week) for Development.

Waste/Recycling Service	Residential		Commercial							
	Apartments	*Tower Apartments*	*Restaurant*	*Bar/ Restaurant (Buckingham Arms)*	*Serviced Apartments*	*Function Rooms (Buckingham Arms)*	*Café*	*Restaurant*	*Restaurant*	*Bar*
	L/week	*L/week*	*L/week*	*L/week*	*L/week*	*L/week*	*L/week*	*L/week*	*L/week*	*L/week*
General Waste	840	7,600	2,500	2,060	2,000	470	1,200	1,130	2,800	320
Dry Comingled Recycling	700	6,325	410	340	1,000	110	190	190	470	60
Cardboard			990	820			460	450	1,130	130
Recycled Deposit Container			250	210			120	110	280	130
Confidential Paper					100					
Food Organics	280	2,500	2,500	2,110	200		770	1,160	2,900	20
TOTAL	1,820	16,425	6,6650	5,540	3,300	580	2,740	3,040	7,580	660

Modified Restaurant WRGR to reflect tenancy capacity: General waste WRGR derated by 35%, recycling/cardboard by 35%, and food waste by 50%.

Modified Café WRGR to reflect Light Café tenant: General waste WRGR derated by 50%, recycling/cardboard by 50%, and food waste by 75%.

5 WASTE MANAGEMENT SYSTEM

5.1 Waste Storage Area(s)

Various waste storage areas are provided throughout the development. These divide into 3 categories:

- In-tenancy bins, which are accessed by occupants of the tenancy on a frequent basis (multiple times per day).
- Tower Waste Disposal Room
    - All commercial waste from the tower and Buckingham Arms building is to be disposed to skip bins in this room. Disposal will be by tenants or commercial cleaners.
    - All residential waste from the tower apartments and serviced apartments is to be disposed via waste chutes accessed at each level. The chutes will discharge into separate skip bin systems in the Waste Disposal Room. A bin conveyor may be installed to change over full to empty bins for tower apartment waste.
- The apartments will have storage space for a set of shared ship bins in a designated waste room. Each apartment resident will be responsible disposing of waste into these bins.

The various bin storage areas are as described further below. Table **5-1** (page 11) gives a schedule of recommended bin storages in each of these waste storage areas for routine Services (based on estimated waste volumes in Table 4-2 on page 9) and includes for each land use and service:

- *Number and type of bins;*
- *Collection frequency (expected or proposed); and*
- *Service provider.*

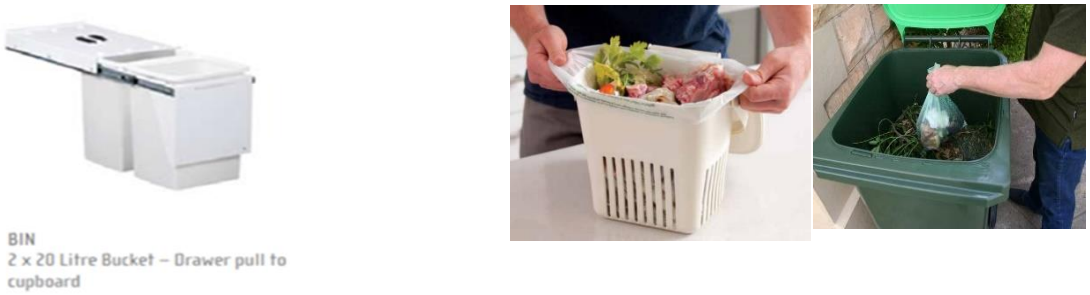
Table 5-1 Waste storage and bin schedule for Routine Services, including collection frequency and collection service provider. *The type and size of bins for some commercial services may be refined in consultation with the commercial waste contractor when the building becomes operational*

Use	Local Disposal Location	Routine Service	Estimated Waste/Recycling Volumes (L/wk)	Collection Frequency (Events/wk)	Provider	Max. Bins/Items Stored & Collected (per Event)		
						No.	*Size (L)*	*Type*
Apartments	Apartment waste room	General Waste	840	2	Private Rear-Lift	1	660	Skip
		Dry Comingled Recycling	700	2		1	660	Skip
		Food Organics	280	1		1	660	Skip
Tower Apartments	Chute Room at each Level	General Waste	7,600	2	Private Rear-Lift	4	1,100	Skip
		Dry Comingled Recycling	6,325	2		4	1,100	Skip
		Food Organics	2,500	2		3	660	Skip
Serviced Accom and F&B (Tower)	Chute Room at each level & Ground Level Tower Waste Room	General Waste	12,480	3	Private Rear-Lift	4	1,100	Skip
		Dry Comingled Recycling	2,770	2		2	1,100	Skip
		Cardboard	3,980	3		2	1,100	Skip
		Food Organics	9,660	3		6	660	Skip
		Confidential Paper	100	1		1	240	MGB
		Container Deposits	1,100	1		4	240	MGB

5.2 Residential waste (Apartments)

Residents would be provided with suitable kitchen bins with handles to enable easy carriage from their dwellings to the Apartment Waste Room, e.g. Figure 5-1.

a) *General waste bin – at least 20L in size (bag lined)*
b) *Co-mingled recycling waste bin - at least 20L in size*
c) *Food organics bin (compostable bag lined)*



(a) *(b)*

Figure 5-1 Examples of suitable waste and recycling kitchen bins: *(a) General waste & recycling - 2×20L Buckets with carry-handles in pull-out drawer; and (b): Bench-top food waste kitchen*

It is proposed that apartments will access a shared set of skip bins, stored in the apartment waste room (see Figure 5-2). Disposal distance from the apartments to the bin room is between 10 – 40m, with only 2 apartments slightly exceeding the recommended distance of 30m in the South Australian Better Practice Guide.

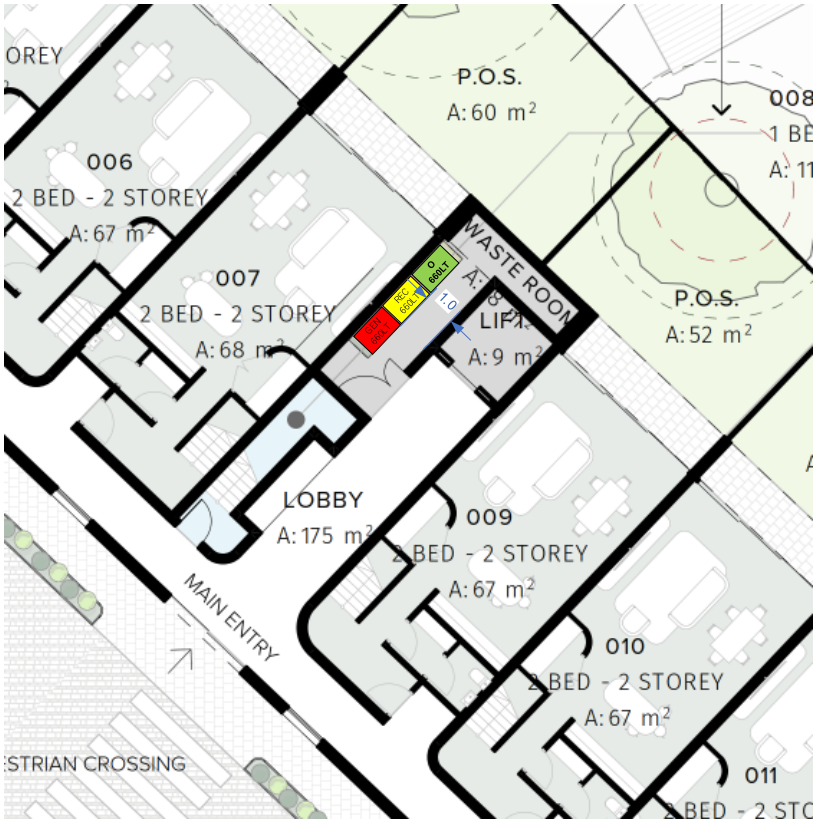


Figure 5-2 Apartments bin storage, Red = General Waste, Yellow = Mixed Recycling & Green = Organics

All waste would be collected by a private contractor using rear-lift trucks. It is expected the volumes of waste produced by apartment residents would necessitate the following collection frequencies:

- 2 per week for General Waste
- 2 per week for Recycling
- 2 per week for Organics

Waste collection trucks would access the site in a forward direction from Northcote Terrace or Walkerville Terrace and stop in the loading bay from the internal road.

The Contractor would collect the bins from the waste room for emptying and return them once collection is completed. After collection, the truck can then exit in a reverse direction back onto the internal road and exit in a forward direction to Northcote Terrace or Walkerville Terrace (see Figure 3-1).

Turning paths have been assessed by the Traffic Engineer (Cirqa) and shown to be acceptable. Refer to Traffic Engineer's report.

5.3 Tower (consisting of apartments and restaurant/commercial)

5.3.1 Waste storage

All waste storage for the tower is combined in an enclosed room on the Ground Floor. The room can be accessed by commercial tenants and cleaners via two access doors. Bins are to be collected by a private contractor using Rear-Lift waste collection trucks parked in a loading dock adjacent the bin storage room.

The waste storage and collection are shown in Figure 3-1 (page 5).

Storage space is provided for Commercial Bins as quantified in Table **5-1** (page 11).

5.3.2 Residential waste (Apartments)

Residents would be provided with suitable kitchen bins with handles to enable easy carriage from their dwellings to the chute disposal room on each level (see Figure 5-5, page 16).

a) *General waste bin – at least 20L in size (bag lined)*
b) *Co-mingled recycling waste bin - at least 20L in size*
c) *Food organics bin (compostable bag lined)*

- General Waste (landfill), Mixed Recycling, and Food Waste will be disposed by residents through a central waste chute system located adjacent to lifts.
- Disposal distance for apartment residents is between 5 and 50m. The chute system is located centrally to the site, and within 10m of the elevators.
- A dedicated chute is to be provided for each of the three waste streams.
- Space is also provided at each level for a bulky waste bin to reduce risk of blockages within the chutes (for example, large cardboard boxes, pizza boxes, etc). This waste would be cleared regularly by the building manager / cleaners and carried to the ground floor bin room.
- Space in the Ground Level Waste Room is provided for:
  - 5 x 1,100L General Waste Skip Bin
  - 5 x 1,100L Recycling Skip Bin
  - 5 x 660L Organics Skip Bin
  - Including bins located under each chute

Once the bins under chutes are full, building management will change out these bins with empty bins. This bin swap will be needed daily for General Waste and Recycling, every 2 to 3 days for food waste.

If preferred by the site operator, space is available to install a bin conveyor system that will automatically replace a full bin with an empty bin. Refer to Figure 5-3 below for a detailed view of the Tower bin room.

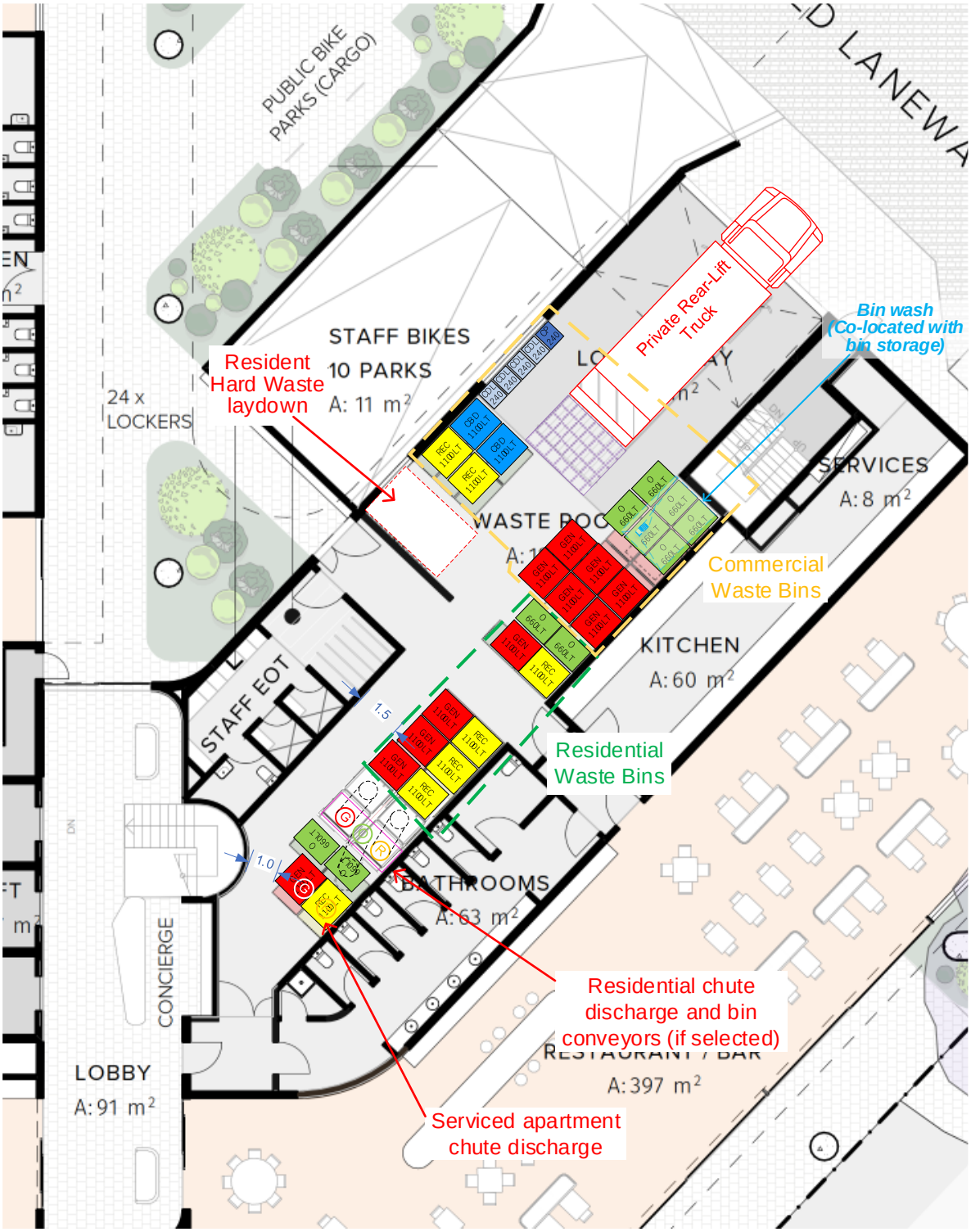


Figure 5-3 Waste storage and collection for tower tenancies and apartments

5.3.2.1 Waste Chute Design

Installation of a waste chute in the Tower Building will conform to Building Code of Australia (BCA) requirements, including consideration for acoustic insulation to minimise noise impacts during operation, and provide for access by water and electrical services required for operation and maintenance (including cleaning) of the chute.

The waste chute should include an extraction fan, so the system can operate under negative pressure. It should also include an in-situ cleaning system to keep tube surfaces clean. Additional ventilation is likely to be required for the ground level bin room.

Design should consider including level monitoring / alarms for bins in service.

Easy access should be provided to chute lockout mechanisms.

Angles of deflection should be selected to minimise risk of blockages and minimise noise from waste hitting the chute deflection.

The chute discharge area (at Ground Level) will require suitable hard surfaces and installation of drains (to sewer) and grading of floors to capture wash water at the chute discharge points (from periodic chute cleaning). Floor treatments should wrap up the walls so liquid spills can be contained and easily cleaned.

The waste chute should be subject to a regular inspection and maintenance schedule to ensure reliable operation.

Figure 5-4 and Figure 5-5 provide examples of chute disposal access points and the layout of bin chute rooms.

Figure 5-4 Example chute disposal access points

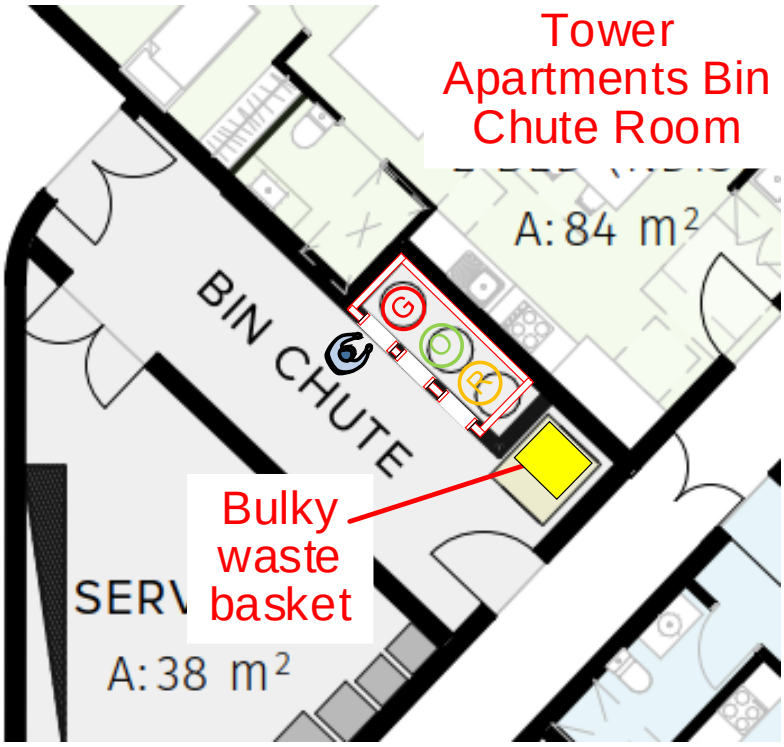


Figure 5-5 Example of Chute Bin Room for Tower Apartments

5.3.3 Commercial Tenancies

The commercial tenancies consist of:

- Serviced apartments
- Food and Beverage tenancy/tenancies

5.3.3.1 Serviced Apartments

Guests and cleaning staff for the serviced apartments would locally dispose of waste via a 2-chute (general waste and recycling) system. The volume of food waste generated by the serviced apartments would be minor and transferred by cleaners from the apartments to the Ground Floor bin room.

The chute system is positioned centrally across levels 1 and 2 and located adjacent to the lifts. The chute system would operate in the same manner as the chute system for the Tower Apartments with general waste and recycling skip bins collecting the waste in the Ground Floor bin room (see Figure 5-6).

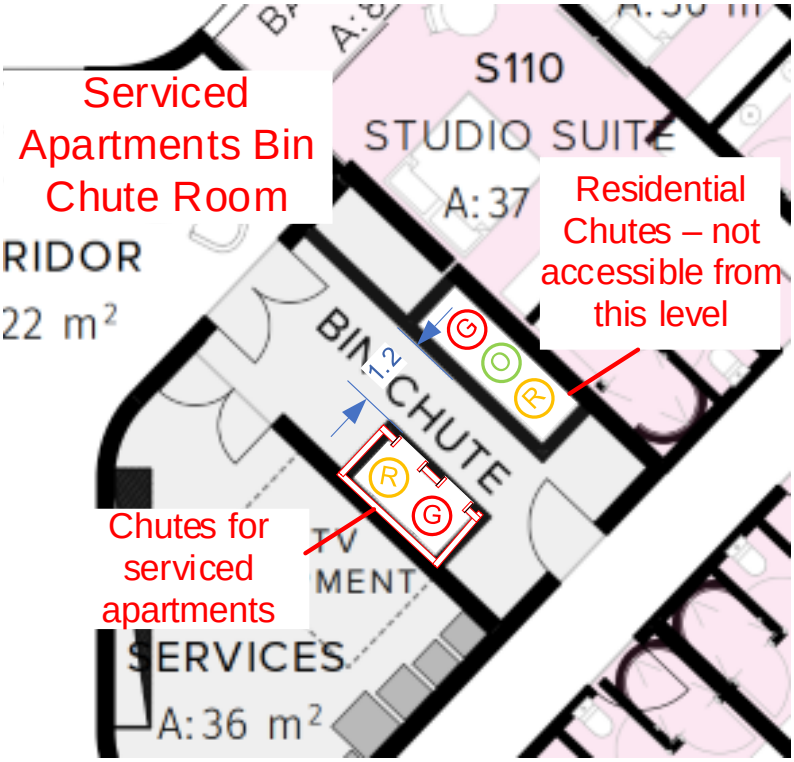


Figure 5-6 Example of Chute Bin Room for Serviced Apartments

5.3.3.2 Food and Beverage tenancies

Tenancies would have bins located in-tenancy for disposal of their waste and recycling.

The types and sizes of the bins would be decided during tenancy fit-out as they depend on type of commercial activity and services elected by the tenants.

Waste disposal transfer paths for each tenancy are shown in Figure 3-1 (page 5). Paths are between 20m and 60m distance. Access to the Bin Storage and Presentation Area would be with key or fob or secure access code.

Building management would be responsible for managing full and empty bins to ensure bin space is available for tenant disposal

5.3.4 Public / Communal space

Public space bins will be placed in two to three locations in the ground floor. Bins will also be placed adjacent the lifts at each basement level. Bins will be serviced (emptied) by building maintenance staff.

5.3.5 Collection

- All waste from the Tower waste room is to be collected by a private contractor using rear-lift trucks.
- Collections would be:
  - 3 per week for General Waste
  - 2 per week for Recycling
  - 3 per week for Cardboard
  - 3 per week for Organics
  - Weekly for Confidential Paper
  - Weekly for CDL / 10c Container Deposits

- The trucks would drive into the site in a forward direction from Northcote Terrace or Walkerville Terrace. Then reverse into the loading bay from the internal road.
- After collection, the truck can then exit in a forward direction back onto the internal road, then exit in a forward direction to Northcote Terrace or Walkerville Terrace (see Figure 3-1 (page 5).
- Turning paths have been assessed by the Traffic Engineer (Cirqa) and shown to be acceptable. Refer to Traffic Engineer's report.

5.3.6 Hard/E-waste

- Building management will facilitate private hard waste collection services for residents.
- This would involve at-call hard waste collection by a private contractor.
- Where appropriate and arranged by management, the hard waste could be stored in the Bin Storage and Presentation Area at ground level, as shown in Figure 5-3 on page 14.
- The waste contractor would park in the loading bay to deliver the hard waste collection services.
- The Building User Manual(s) for residents at the Development would advise on availability and/or organizing the Hard /E-waste collection services.

5.4 Maintenance Services

Waste would be generated by some maintenance services or activities in the building and commercial tenancies at the site (e.g. lighting, repair work, cleaning of commercial toilets, etc.). These maintenance-generated waste materials would be handled and disposed of by the contractor undertaking these services. Dedicated on-site storage for these waste materials is therefore not needed.

5.5 External

Residents and commercial tenants would be able to dispose of smaller waste items, such as printer cartridges, batteries and lighting, to publicly available external drop off points (e.g. supermarkets, Office works, telco retail stores, etc.), which accept these materials.

The Building User Manual(s) for residents and commercial tenants at the Development will include advice on external drop-off points for these waste items, which may include reference to Council advice available at their Web site.

5.6 Bin cleaning (& On-site Bin Wash Area)

A dedicated on-site bin cleaning area would be provided inside the Bin Storage and Presentation Area– see Figure 5-3 (page 13).

- This bin wash area would require grading to a sewer drain with basket screen to remove gross solids, tiles or epoxy coating to water-proof adjacent walls and flooring, standard cold-water supply faucet (from cleaners sink) and commercial-grade electrical power supply (if pressure washer system is to be used), plus bunds and screens for use during bin wash events.
- Bin washing activity would be managed by the Building/Facilities Manager.
- Bin washing would be timed to occur immediately after bins are emptied.

- Bin washing could be facilitated with a mechanical lifting device such as that shown in Figure 5-7

Figure 5-7 Mechanical bin washer Source: https://emoveit.com.au/product/bin-blaster-mobile-wheelie-bin-washer

Alternatively, bin cleaning at the Development could be outsourced to an external contractor (e.g. http://binforce.com.au/).

- These external contractors generally have self-contained bin washing systems on back of ute or truck that enable them to clean bins on site – e.g. Figure 5-8 below.
- Some service providers will remove bins from site, replacing them with an empty spare, clean the bins, then return them to site.

Figure 5-8 On-site bin wash system for rear-lift trucks on back of ute. *Source: http://binforce.com.au/*

5.7 Transfer pathways

There are range of transfer pathways for the waste systems at the Development, which were described earlier in Section 5. The following is provided as a guide for sizing and designing these transfer pathways.

- *Transfer pathways –*
  - *User disposal – prefer less than 50m each way and free of steps, no grades greater than 1:15, and cater for mobility impaired users.*
  - *Local disposal points to central storage – enough width to accommodate relevant bins or waste loads being transferred, free of steps, no grades greater than 1:12*
  - *Collection – less than 30m with no steps or grades greater than 1:10*
- *Corridor widths –*
  - *240L MGBs or smaller bins / loads – min. 1,000 mm (1,200mm preferred)*
  - *660L skip bins – min. 1,200mm (1,400mm preferred)*
  - *1,100L skip skips and/or other waste loads – min. 1,500mm (1,600mm preferred)*
- *Doors –*
  - *Local disposal access – 800mm*
  - *Transfer pathways– Appropriate to the size of bin to be transported, e.g.*
    - *240L MGB (or smaller) – min. 800mm*
    - *660L skip – min. 900mm, prefer 1,200mm*
    - *1,100L skip – min 1,400mm, prefer 1,600mm*
- *Floors – Hard surfaces where bins and skips are to be carted*

Based on current plans, these requirements for transfer pathways in the Development appear to be generally satisfied. All relevant transfer pathways should be reviewed and confirmed at detailed design stage to ensure they are appropriate.

5.8 Collection & Traffic

The waste collection point for the Development introduced above is reiterated below.

- All collections are made from the loading bay adjacent the Tower bin room, per Figure 3-1 (page 5).
- Overhead clearance of minimum 3.8m (from floor to ceiling) is required for rear lift trucks for access and operation of the bin lifting equipment.
- Collection should be completed within 15 minutes per service.
- The collections should be scheduled to minimise impacts on traffic accessing the building.

Access to the Loading Bay is from Northcote Terrace or Walkerville Terrace with trucks entering and exiting the site in a forward direction. Swept path analysis has been carried out by the traffic engineer to ensure safe reversing access into the loading bay.

Refer to the Traffic Report by Traffic Engineer for additional discussion of collection truck access to the Development.

5.9 Management & Communication

5.9.1 Responsibilities

Table 5-2 summarises the responsibilities of different parties / stakeholders for proposed waste management and operational activities at the Development. In summary:

- ***Residents*** – The Building / Facilities Manager would be responsible for managing the waste system, but residents would play an important role in managing their local disposal activities and accessing the Council hard waste service, and Council (at its discretion) may support the Building / Facilities Manager with resident engagement and education to help drive good waste management outcomes.

- ***Commercial tenancies*** – The Building / Facilities Manager would manage the waste system, including ensuring that good waste management outcomes by tenants were achieved.

Table 5-2 Management & operational responsibilities for the waste systems at the Development

Waste System	Activity	Responsible party
Residential (Apartments and Tower Apartments)	*Local Disposal*	Residents
	Waste Storage Areas, Hygiene, Odour Management & Cleaning	Building Manager
	Collection services – Standard Waste & Recycling	Commercial / Private Contractor(s)
	Collection services – Hard Waste	Council or Commercial / Private Contractor(s)
	Management	Building Manager
	Education, Training & Engagement	Building Manager with support from Council
Commercial (Serviced Apartments & F&B tenancies)	*Local Disposal, Hard Waste & External Disposal*	Guests (local disposal only), Tenants
	Waste Storage Areas, Hygiene, Odour Management & Cleaning	Tenants, Building Manager
	Collection services – Standard Waste & Recycling	Commercial / Private Contractor(s)
	Management	Building Manager
	Education, Training & Engagement (tenants)	Building Manager

5.9.2 Implementation & Communication

5.9.2.1 Residential

To successfully implement this WMP, the following should be put in place.

- ***Mandated responsibilities for all apartment residents –*** Obligations for residents to properly access, operate and use the waste systems provided should be written into any tenancy residency agreement and/or incorporated into the Community/Strata plan lodged with the Lands Titles Office.
- ***Resident Induction –*** Should include first-day guidance on how to correctly use the waste systems.
- ***Building User Manual*** – Advice and instructions on waste management and using the waste systems should be included in the Building User Manual(s) developed for residents, including contact information for further information, questions and issues.
    - *This may include advice to residents on how to properly dispose of other waste / recycling items including lighting, batteries and hazardous household waste*
- ***Emergency Response &/or Property Management Plan(s) –*** Should include response measures (or contingencies) for:
    - *Collection services suspended or not available;*
    - *Incorrect use by residents of the waste systems; and*
    - *Illegal dumping on-site.*

5.9.2.2 Commercial/Retail tenants

Like the residential system above, the following should be put in place for the commercial system:

- ***Community/Strata title arrangements for commercial property owners –*** Obligations for the commercial tenants and/or property owners to properly access, operate and use the waste systems would be written into any tenancy agreement and the Community/Strata plan lodged with the Lands Titles Office.
- ***Site Management System / Manual*** – Advice and instructions on waste management and using the waste systems should be provided for tenants, including contact information for further information, questions and issues.
- ***Tenant Induction –*** Should include guidance on how to correctly use waste /recycling bins as well as the site approach to waste and recycling.
- ***Emergency Response or Site Management Plan(s) –*** Should include response measures (or contingencies) for:
    - *Waste collection services suspended or not available;*
    - *Incorrect use by tenants of the waste systems;*
    - *Illegal dumping on-site; and*
    - *Poor waste management outcomes (including cleanliness, odour and/or low diversion).*

5.10 Other Waste System Design or Management Issues

The following would be considered and/or implemented for waste systems at the Development. More details for some of these items can be resolved at detailed design stage with the waste contractor and/or Council.

1) **Bins** – These would comply with Australian Standard for Mobile Waste Containers (AS 4213). Residential bins would be supplied by Council.
2) **Signage** –
    - Appropriate signage in all Local Disposal and Waste Storage Areas should be used to ensure correct disposal of waste and recycling.
    - This signage should conform to the signage requirements of Council and/or the State Guideline (Zero Waste SA, 2014).
    - Consider signs with pictorial diagrams and/or multiple languages
3) **Vermin, hygiene & odour management (inc. ventilation)**
    - ***Inspection & Cleaning*** –
        - An inspection and cleaning regime would be developed and implemented by the Building / Facilities Manager for waste systems at the Development, including ensuring that surfaces and floors around disposal areas, transfer pathways and waste storage areas are kept clean and hygienic and free of loose waste and recycling materials.
            - *Where putrescible general waste or food waste is being stored, Local Disposal and Waste Storage areas should be graded to a sewer drain with tiling or epoxy coating to floors and adjacent walls to waterproof the area and for cleaning.*
    - ***Odour Control*** –
        - All Waste Storage Areas –
            - *Where putrescible general waste or food waste is being stored, these areas would be mechanically ventilated for control of odours.*

- *The ventilation would extract to atmosphere, to prevent odour build up.*
- *The extraction vent discharge location would be selected to avoid impact on residents, tenants and/or neighbours.*
- *It should be a requirement for food waste bins in Waste Storage areas that lids are closed after use.*

4) **Access & security** –
   - All Waste Storage Areas (residential and commercial) in the Building should be secure and only accessible by key or fob or access code.
     - *This key or fob or access codes would be provided to residents, tenants, property management staff and/or waste contractor(s) collecting from these areas.*
     - *CCTV is recommended to monitor waste disposal practices in all Waste Storage Areas.*

6 PLANNING & DESIGN CODE OBJECTIVES

The applicable policies relating to Waste are provided in the following table. The third column states how these policies have been addressed in the proposed design.

Design in Urban Areas		
All Development		
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.	DTS/DPF 1.5 None are applicable	Response: The bin room is fully contained and enclosed within the building envelope.
Site Facilities / Waste Storage (excluding low rise residential development)		
PO 11.1 Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities for the ongoing maintenance of bins that is adequate in size considering the number and nature of the activities they will serve and the frequency of collection.	DTS/DPF 11.1 None are applicable	Response: Collection systems are provided for source-separated landfill, recycling, food waste, and cardboard. A bin wash area/system is to be included in the Ground Floor bin room.
PO 11.2 Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space, and dwellings	DTS/DPF 11.2 None are applicable	Response: Bins are to be stored in an enclosed ventilated room at Ground Level. Residential tenants and Guests will dispose waste into the Apartment Bin room or chutes, with a 3-chute system (2-chute system for Serviced Apartments) provided at each residential level for separate disposal of General Waste, Recycling, and Organics/Food Waste
PO 11.3 Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.	DTS/DPF 11.3 None are applicable	Response: Bins are to be stored in an enclosed ventilated room at Ground Level.
PO 11.4 Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.	DTS/DPF 11.4 None are applicable	Response: Waste Trucks will enter the site from Northcote Terrace or Walkerville Terrace and reverse into the Loading Dock adjacent the bin room. Trucks will forward-exit out of the Loading Dock and into Northcote Terrace or Walkerville Terrace. Refer to Traffic Engineer's report for discussion of truck movements.
PO 11.5 For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate	DTS/DPF 11.5 None are applicable	Response: Space is allowed for sorting and collection of a variety of wastes. Bins are to be provided for separation of food waste for collection and composting off-site

All non-residential development		
PO 43.1 Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, plant or equipment are: a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off b) paved with an impervious material to facilitate wastewater collection c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area d) are designed to drain wastewater to either: i. a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or ii. Community Wastewater Management Scheme or a holding tank and its subsequent removal off-site on a regular basis.	DTS/DPF 43.1 None are applicable	Response: A Loading Dock and Bin Room are provided within the property boundary at Ground Level. A bin wash is to be provided in the bin room, with connection to the sewer via a maintainable basket screen with 3mm holes. The room is fully contained to prevent stormwater from entering the sewer.