

Urbii



Reduce. Reuse. Recycle

882 Canning Hwy, Applecross

Proposed Commercial Development

Waste Management Plan



Prepared for:
Carcione Nominees Pty Ltd

September 2025

882 Canning Hwy, Applecross

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1 Introduction

This Waste Management Plan has been prepared by **Urbii** on behalf of **Carcione Nominees Pty Ltd** with regards to the proposed commercial development, located at 882 Canning Hwy, Applecross.

The subject site is situated at the north-west corner of Canning Highway and Sleet Road, as shown in Figure 1. A commercial development is proposed at the site, which will deliver 509m² of specialty retail and F&B tenancies on the ground level, with 12,944m² of office NLA on upper levels.

The key issues that will be addressed in this WMP include calculation of the waste generation of the site, assessment of waste storage provisions and documentation of the waste collection arrangements.



Figure 1: Subject site



2 Objectives

The objectives of this WMP are adapted from WALGA:

- Ensure that the long-term waste management needs for the development are met in an efficient and sustainable manner.
- Minimise the impact of waste services and facilities on the streetscape and surrounds, in relation to both the footpath/public realm and the frontage of the development.
- Reduce the impact of waste collection services and facilities on the amenity of the locality particularly in terms of noise and odour.
- Maximise safety for both waste collection staff and the public.
- Minimise traffic and footpath obstruction.

This WMP implements the WALGA 'Better Practice' principles. The better practice approach promotes appropriate behaviour in relation to waste management, increases the amenity and practicality of waste systems, enhances environmental performance and the reputation of developments with well-managed waste facilities.

3 Referenced documents

The documents referenced in preparing this WMP may include, but are not limited to:

- *City of Vincent Waste Guidelines for New Developments 2020;*
- *City of Melbourne Guidelines for Waste Management Plans 2021;*
- *City of Perth Waste Guidelines for all Developments 2019;*
- *WALGA Multiple Dwelling Waste Management Plan Guidelines;*
- *WALGA Subdivision Waste Management Plan Guidelines;* and,
- *Waste Authority WA Waste Avoidance and Resource Recovery Strategy for 2030.*



4 Guiding concepts

Urbii adopts the guiding concepts of the State's Waste Strategy and encourages these concepts to be considered in all developments to the furthest extent feasible.

4.1 Waste hierarchy

The *Waste Avoidance and Resource Recovery Strategy 2030* applies the waste hierarchy (Figure 2), which is a widely accepted decision-making tool. The waste hierarchy ranks waste management options in order of their general environmental desirability. Waste avoidance is the most preferred option in the hierarchy.

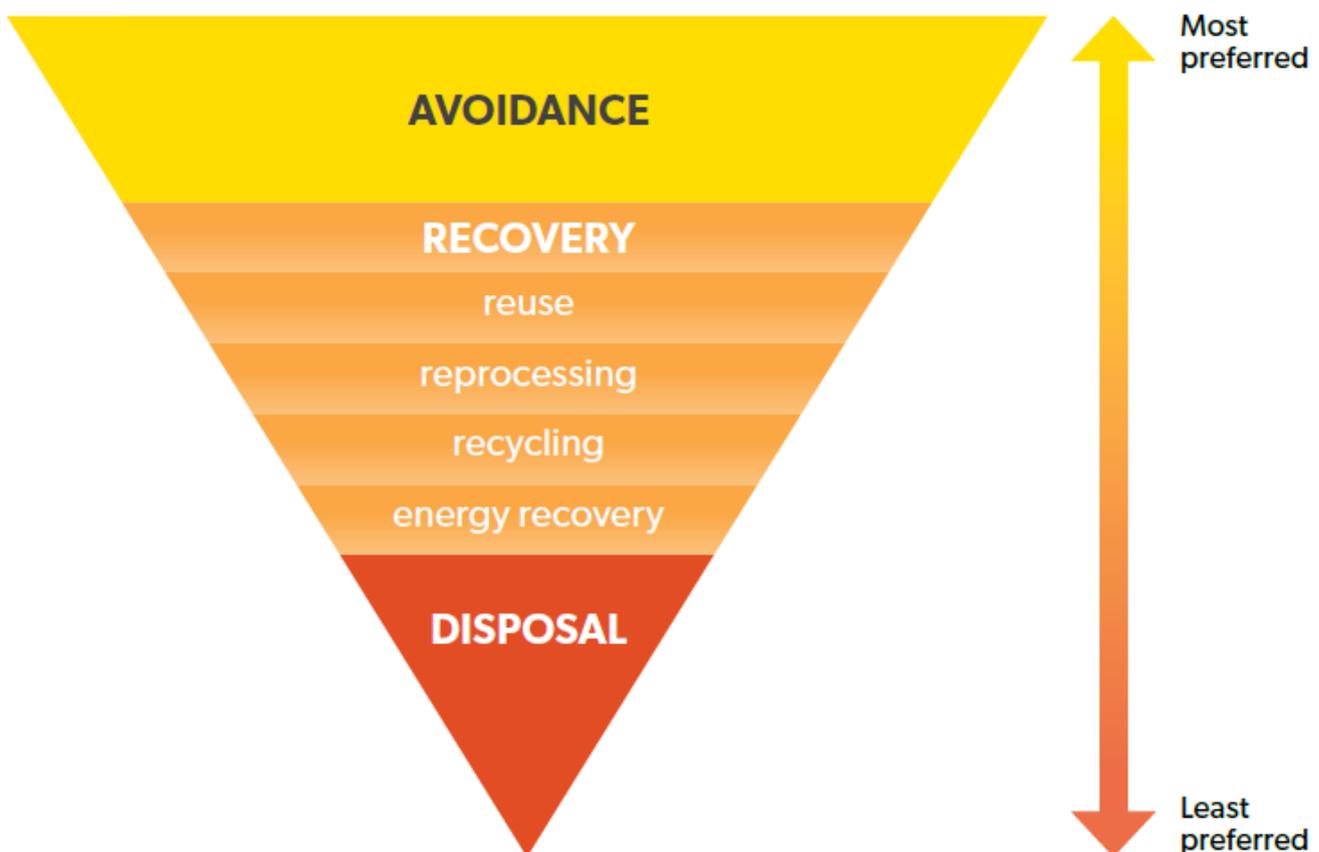


Figure 2: Waste hierarchy

Source: Waste Authority WA *Waste Avoidance and Resource Recovery Strategy for 2030*.

Resource recovery options recover value from materials, thereby offsetting the environmental impacts of extracting and processing raw materials. Energy recovery is the least preferred recovery option. Disposal is the least preferred option. Disposal generally recovers the least value from materials and delivers the least environmental benefit.

4.2 Circular economy

A circular economy (Figure 3) makes use of established sustainability concepts, including life cycle thinking and resource efficiency. A circular economy should consider the flow of both materials and energy. It moves away from the linear 'take, make, use and dispose' model, to one which keeps materials and energy circulating in the economy for as long as possible.

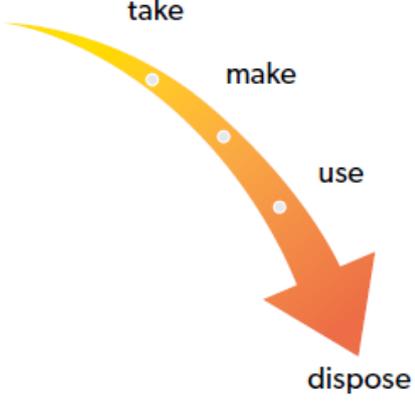
Current approach	Circular economy
	
Linear flow of materials – 'take, make, use and dispose' model.	Circular flow of materials – materials sorted and retained in the economy for as long as possible.
Limited use of renewable materials and energy.	Preference for renewable materials and energy.
Significant volumes of materials disposed of and lost to the economy. Loss of embodied materials, energy and water.	Materials recovered as high up the waste hierarchy as possible. Embodied materials, energy and water retained in the economy. Organic materials re-enter and regenerate the environment safely (for example, as compost).
Materials managed locally and globally.	Preference to manage materials locally to reduce the costs and impacts of transport, and to provide local employment and investment opportunities.
Economic value of materials, employment and investment not fully accounted for.	Economic value of materials, employment and investment accounted for.
Limited focus on life cycle thinking.	Products designed and manufactured to minimise environmental impact through whole of life.

Figure 3: Transitioning to a circular economy



5 Proposed development

A commercial development is proposed for the subject site, which will combine the complementary uses of F&B, specialty retail and office. The floor areas for different tenancies are detailed in Table 1.

Table 1: Proposed uses

Land use	Description	Floor area (m2)
F&B	Café	84.6
Shop	Shops < 100m2 floor area	193.5
Shop	Shops > 100m2 floor area	231.6
Office	Office	12944

The proposed development plans are included for reference in Appendix A.

6 Waste generation

6.1 Waste generation rates

The commercial waste generation rates adopted for the proposed tenancies are presented in Table 2.

Table 2: Commercial waste generation rates

Land use	Description	General waste generation rate	Recyclables generation rate
F&B	Café	300L/100m ² floor area/day	200L/100m ² floor area/day
Shop	Shops < 100m ² floor area	50L/100m ² floor area/day	25L/100m ² floor area/day
Shop	Shops > 100m ² floor area	50L/100m ² floor area/day	50L/100m ² floor area/day
Office	Office	10L/100m ² floor area/day	10L/100m ² floor area/day

6.2 Waste generation calculations

The waste generation calculations are detailed in Appendix D. The estimated waste generation for the development is:

- General Waste: around 9,736L per week.
- Recyclables: around 8,806L per week.



7 Waste systems

7.1 Internal waste storage

Designers should aim to incorporate sufficient space within each tenancy for the temporary storage of accumulated waste and recycling. Space should be sufficient to allow for the separate storage of recyclables and general waste accumulated for one day of trading.

Cleaning staff will empty waste from bins in commercial tenancies and transport the waste to the centralised bin store provided onsite.

7.2 External bin storage areas

The proposed development provides one shared loading bay for deliveries, large service vehicles and onsite waste collection.

7.2.1 Bin size, quantity and colour

It is proposed to provide the following bins in a centralised bin store:

- 5 x 1,100L General waste (red lid bin).
- 5 x 1,100L Commingled recycling (yellow lid bin).

The number of bins required for the development is detailed in Appendix D.

7.2.2 Bin storage area size

The bin storage area is approximately 54m² in size and is sufficient to accommodate the proposed quantity and size of bins. There is surplus area in the bin store to facilitate the comfortable washing of bins and/or temporary storage of bulky waste items. The architectural plans demonstrate sufficient bin store space to accommodate up to 16 x 1,100L bins. This provides excess capacity to facilitate flexible use of ground floor tenancies.

Urbii has checked the proposed bin storage location and confirmed that required internal manoeuvring clearances are provided. A bin storage plan is included in Appendix B.

7.2.3 Bin storage area design

The bin store includes the following design features:

- **Size:** The size of the area set aside for the management of waste is sufficient to accommodate the number of bins required (based on the compaction ratio and the collection regime provided).
- **Ventilation and odour:** The design of the bin stores will provide for adequate natural ventilation through ventilated doors which will be permanent, unobstructed natural ventilation openings direct to the external air, not less than one-twentieth i.e. 5% of the floor area.
- **Lighting:** Artificial light controlled by switches will be located both outside and inside the room.
- **Noise:** Waste and recyclables will be collected from the loading bay on the ground level.
- **Signage:** Clear and easy to read “NO STANDING” signs and “DANGER” warning signs for children will be fixed to the external face of the bin stores and signage designating the storage of RECYCLABLES will be fixed to the internal wall(s).
- **Aesthetics:** The bin store has been designed to be consistent with the overall aesthetics. The waste collection point is located away from the front or main entrances to the building and avoids setting bins out along the external walls of the building.
- **Protection from Fire, theft and vandalism:** The bin store is located on the ground level and access will be restricted to only authorised staff and tenants.
- **Vermin:** Self-closing doors will be installed to prevent vermin access.
- **Washing bins and waste storage area:** The bin store will have bin-washing facilities including an adequate supply of hot and cold water mixed through a centralised mixing valve with hose cock and have floor drainage installed. The site supervisor will be responsible for arranging bin washing (or contracting the waste and recycling service provider to wash bins) and for maintenance of the bin stores.
- **Distance from service area & truck access:** Reasonably level ground, with flat trafficable (bin width) access paths from the bin store to the onsite loading bay.

7.3 Access to bins

At the end of each trading day, cleaners will collect waste from the commercial tenancies and transfer it to the centralised bin storage area.

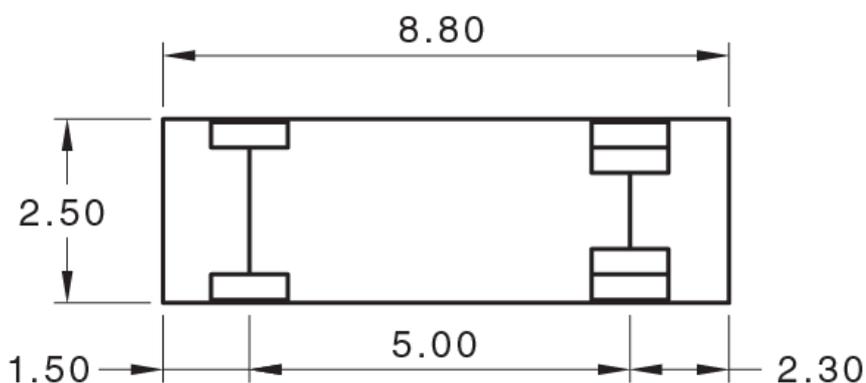


8 Waste collection

8.1 Waste vehicle types

Waste collection will be serviced through a private contractor. A rear loader waste truck will be used to empty the 1,100L bins.

Swept path analysis was prepared for an 8.8m Medium Rigid Vehicle (MRV), as detailed in Figure 4. Swept path analysis confirms satisfactory service vehicle movements and is presented in Appendix C. Service vehicles are able to enter and exit the site in forward gear.



(b) Medium rigid vehicle
Clearance height 4.50
Design turning radius 10.0

Figure 4: Adopted checking vehicle for swept path analysis

Source: AS2890.2 *Off-street commercial vehicle facilities*

8.2 Waste collection frequency

General waste and recycling will be collected two times per week.

8.3 Waste collection method and presentation points

Waste trucks will enter the site in forward gear and reverse into the services area for waste collection. Bins will be wheeled directly from the bin storage area to the rear of the truck for emptying. The waste truck will enter and exit the site in forward gear.

9 Additional waste requirements

9.1 Bulk waste

There is sufficient capacity in the service area for the temporary storage of bulk waste.

9.2 E-Waste

E-waste (including batteries and lamps) will be stored separately and collected by a licensed e-waste recycler or delivered to an approved drop-off program. Batteries must not be placed in general or recycling bins.

9.3 Garden organics

The site caretaker will manage garden organic waste associated with landscape maintenance. Garden waste can be placed in bins if there is space or can be removed by trailer to be disposed of offsite in a suitable location.

9.4 Liquid waste and grease

Some internal areas may need grease arrestors to control grease and fat content in wastewater. These requirements are governed by the Water Corporation which provides the following general advice:

“Under the Water Services Act 2012, all businesses involved in the retail food industry must obtain written permission before discharging any waste into our wastewater system. During the trade waste application assessment process our trade waste officers assess if a grease arrestor is required based on the type of activities being undertaken. In general, retail food businesses that prepare and cook on site require a grease arrestor.”

A qualified FOGMan (fats, oils and grease management) contractor should be engaged to remove cooking oils, fats and grease from relevant areas. Supporting infrastructure for these areas should be considered at detailed design and internal fit-out stages



10 Waste management

The building caretakers or contracted staff will be responsible for:

- Arranging pick-up times for the bins by the private contractor;
- Arranging for the bins to be cleaned and sanitised;
- Coordinating the cleaning of the bins and bin storage areas every two (2) to three (3) weeks;
- Dealing promptly with any issues or complaints relating to hygiene, noise, odour or other inconvenience; and,
- Providing adequate training for relevant staff regarding waste management.

Tenants should comply with the Contractor's waste sorting requirements and only place permitted waste in each respective bin type. Waste that does not belong in any bin should be disposed of through on-demand services or another appropriate method.

A copy of the Waste Management Plan will be maintained within the premises and strata plan for reference and records.

11 Signage and education

Ongoing education, to support the waste management service, is one of the most important factors in encouraging tenants to continue to utilise services and systems as originally intended. The following recommendations have been adapted from the WALGA Guidelines.

- Clearly identify what items are and are not accepted in the general waste and recycling systems. If signage within the bin store is not possible due to space or other restrictions, bin stickers may be appropriate.
- Outline appropriate waste management behaviour i.e. placing refuse/recyclables inside as opposed to adjacent to bins, placing mixed recyclables into the bin loose (not in a plastic bag), closing bin lids etc.
- Where the strata body/building management holds tenants' induction schemes, these should include the use of waste and recycling facilities. The strata body/building management, in conjunction with the Local Government, should issue a leaflet on the correct use of the waste and recycling facilities and the materials recycled. Tenants' handbooks should include a section on the correct use of general waste and recycling facilities.
- Ensuring education is 'ongoing' is beneficial because it tackles the transient nature of tenants and differences between different Local Government services. All waste and recycling bins or receptacles should be clearly and correctly labelled and signage should be erected in bin storage areas to instruct tenants as to the correct separation of recyclables from general waste (refer to Figure 5).
- Any hazards or potential dangers associated with the waste facilities, including those from the use of any waste handling equipment, should also be clearly identified. It is recommended that building managers post information in communal areas which clearly identify the relevant points of contact regarding recycling and/or other services within the development. As part of the ongoing education program, welcome packs should be produced and provided to all new tenants. These packs should contain information outlining the developments waste management system, required actions and appropriate waste management behaviours.
- Signage should be provided to demonstrate to users how to use the waste system and to identify any hazards or potential dangers within Bin Storage Areas, including those from the use of waste handling equipment. Signage should conform to the relevant Australian Standard (AS4123) bins, (AS4123.7) bin colours and (AS1319) safety signs.
- Consistent and clear signage is a key element of effective source separation and minimising incorrect disposal and it is important that signage is consistent throughout the whole of the development.
- In addition, there is benefit in using visual aids and colour consistency to re-enforce messaging. Below gives examples of bin stores where bins for various waste streams are stored against colour coded walls. This enables easy identification of what materials should be placed in each bin and to ensure bins are always returned to the same position to maintain consistency.





Figure 5: Example bin store signage

12 Conclusion

As demonstrated within this Waste Management Plan, the proposed commercial development provides sufficient bin storage and adequate bins to service the site.

Furthermore, the servicing of the bins by private collection can be adequately achieved without having an adverse impact on the site and the local street network.



Appendices

Appendix A: Proposed development plans

NO.	REVISION	DATE	BY



GROSS FLOOR AREA

LEVEL	AREA (m ²)
BASEMENT	180m ²
GROUND LEVEL	2143m ²
<i>(OF WHICH THE LOUIS (2000m²)</i>	
LEVEL 02	1500m ²
LEVEL 03	870m ²
LEVEL 04	1010m ²
LEVEL 05 (TYPICAL)	2270m ²
TOTAL	2270m²

NET LETTABLE AREA

LEVEL	AREA (m ²)
GROUND LEVEL	500m ²
LEVEL 03	720m ²
LEVEL 04	1010m ²
LEVEL 05 (TYPICAL)	1345m ²
TOTAL	1345m²

PARKING

CAR PARKING	AREA (m ²)
BASEMENT	46
LEVEL 02	6
TANDEM	6
GROUND FLOOR	5
SERVICE	1
UNIVERSAL	2
LEVEL 1	36
CARPARK	4
TANDEM	6
LEVEL 2	46
CARPARK	4
TANDEM	4
TOTAL CAR PARKING	100

MOTORCYCLE PARKING

BASEMENT	15
GROUND FLOOR	0
LEVEL 1	10
LEVEL 2	17
TOTAL MC PARKING	47

BICYCLE PARKING

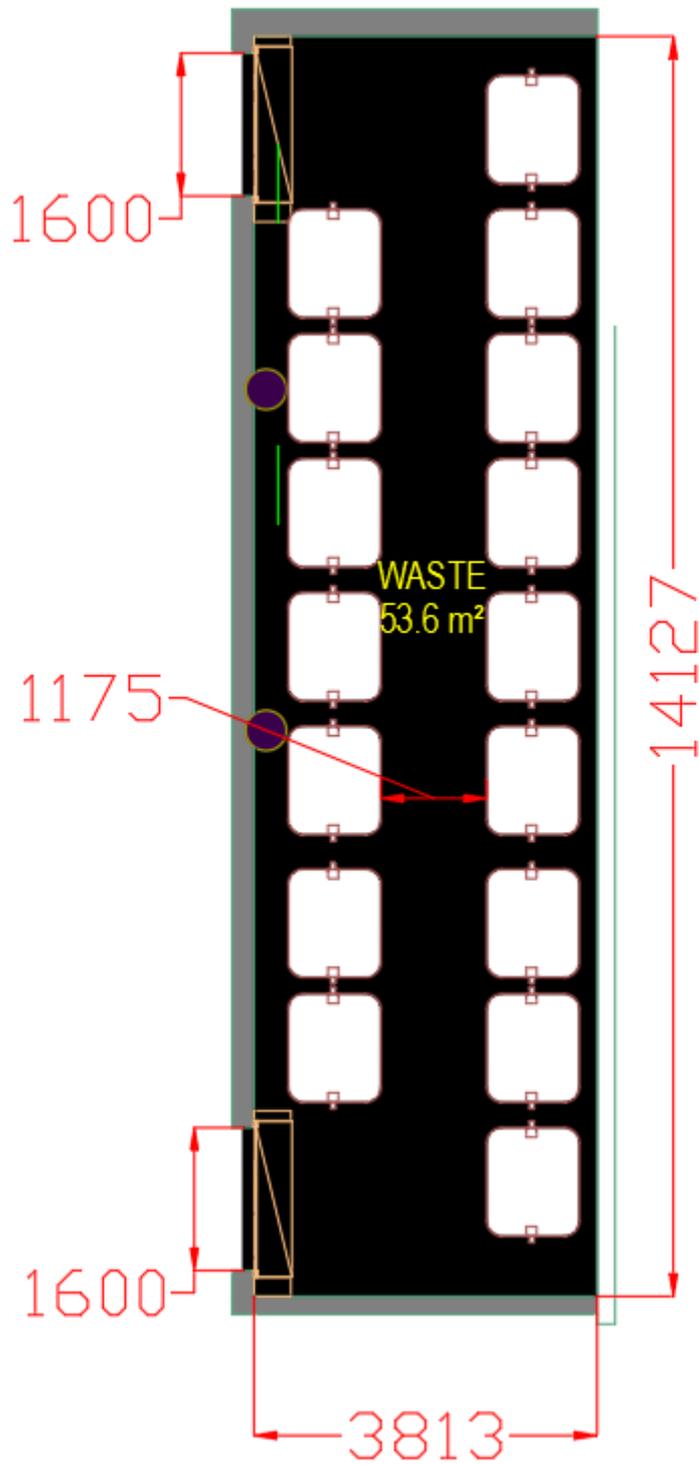
SECURED	130
UNSECURED	4
TOTAL	134

NO.	REVISION	DATE	BY

GROSS FLOOR AREA	
LEVEL	m ²
BASEMENT	180m ²
GROUND LEVEL	2143m ²
(OF WHICH THE LOUIS 1028m ²)	
LEVEL 02	190m ²
LEVEL 03	87m ²
LEVEL 04	177m ²
LEVEL 05 (TYPICAL)	1270m ²
TOTAL	2776m²
NET LETTABLE AREA	
LEVEL	m ²
GROUND LEVEL	50m ²
LEVEL 03	728m ²
LEVEL 04	1038m ²
LEVEL 05 (TYPICAL)	1345m ²
TOTAL	1345m²



Appendix B: Bin storage plans



Appendix C: Swept path diagrams

Swept path diagrams are included in this section of the report. Different coloured lines are employed to represent the various envelopes of the vehicle swept path, as described below:

Cyan represents the wheel path of the vehicle

Green represents the vehicle body envelope

Blue represents a buffer 300mm/500mm line, offset from the vehicle swept path

The swept path diagrams are also provided separately in high-quality, A3 PDF format.

Appendix D: Waste calculations

Table 3: Weekly waste generation and collection – Commercial

Land use	Description	Floor area (m2)	General waste generation rate	Recyclables generation rate	Days in operation (per week)	Weekly general waste	Weekly recyclables
F&B	Café	84.6	300L/100m ² floor area/day	200L/100m ² floor area/day	7	1776.6	1184.4
Shop	Shops < 100m2 floor area	193.5	50L/100m ² floor area/day	25L/100m ² floor area/day	7	677.25	338.625
Shop	Shops > 100m2 floor area	231.6	50L/100m ² floor area/day	50L/100m ² floor area/day	7	810.6	810.6
Office	Office	12944	10L/100m ² floor area/day	10L/100m ² floor area/day	5	6472	6472
Total						9736.45	8805.625

Waste type	Weekly waste generation (L)	Weekly collection frequency
General waste	9736.45	2
Recyclables	8805.625	2

General Waste
Bins

Bin Size (L)	Number of bins	Weekly capacity
1100	5	11000
Total weekly capacity (L)		11000

Recycle Waste Bins

Bin Size (L)	Number of bins	Weekly capacity
1100	5	11000
Total weekly capacity (L)		11000

