

Urbii



Reduce. Reuse. Recycle

37 Amalfi Avenue, Mindarie

Proposed Commercial Development

Waste Management Plan



Prepared for:
Relink Management WA Pty Ltd

May 2026

37 Amalfi Avenue, Mindarie

Prepared for: Relink Management WA Pty Ltd
Prepared by: Paul Ghanous
Date: 15 May 2026
Project number: U25.123

Version control

Version No.	Date	Prepared by	Revision description	Issued to
U25.123.r02	09/12/25	Paul Ghanous	DRAFT	T&Z Architects
U25.123.r02a	12/12/25	Paul Ghanous	FINAL	T&Z Architects
U25.123.r02b	11/05/26	Paul Ghanous	REVISED DRAFT	T&Z Architects
U25.123.r02c	15/05/26	Paul Ghanous	REVISED FINAL	T&Z Architects



Urbii Consulting Pty Ltd
ABN 34 630 529 476
PO BOX 4315
BALDIVIS WA 6171
T: + 61 433 858 164
E: customer@urbii.com.au
W: www.urbii.com.au

Contents

1	INTRODUCTION	1
2	OBJECTIVES	2
3	REFERENCED DOCUMENTS	3
4	GUIDING CONCEPTS	4
4.1	Waste hierarchy	4
4.2	Circular economy	5
5	PROPOSED DEVELOPMENT	6
6	WASTE STREAM COMPOSITION AND GENERATION	7
6.1	Waste composition	7
6.2	Waste generation rates	10
6.3	Waste generation calculations	10
7	DESIGN CONSIDERATIONS	11
7.1	Noise	11
7.2	Odour	11
7.3	Hygiene and vermin	12
7.4	Security	12
8	WASTE STORAGE	13
8.1	Bin storage area design summary	13
8.2	Internal bin storage	13
8.3	External bin storage areas	14
9	WASTE COLLECTION	18
9.1	Waste vehicle types	18
9.2	Waste collection frequency	18
9.3	Waste collection method and presentation points	19
9.4	Vehicle access and maneuvering	19
10	ADDITIONAL WASTE REQUIREMENTS	20
10.1	Bulk waste	20
10.2	E-waste	20
10.3	Garden organics	20
11	WASTE MANAGEMENT	21
12	SIGNAGE AND EDUCATION	22
13	CONCLUSION	23
	APPENDICES	24

Figures

Figure 1: Subject site	1
Figure 2: Waste hierarchy	4
Figure 3: Transitioning to a circular economy	5

Tables

Table 1: Types of waste generated by commercial and industrial operations	8
Table 2: Types of waste generated by residential developments.....	9
Table 3: Commercial waste generation rates – high waste tenancy mix.....	10
Table 4: Mobile Garbage Bin (MGB) dimensions	15
Table 5: Commercial weekly waste generation and collection	34

Appendices

Appendix A: Proposed development plans	24
Appendix B: Bin storage and presentation plans	27
Appendix C: Swept path diagrams	30
Appendix D: Waste calculations.....	33

1 Introduction

This Waste Management Plan has been prepared by **Urbii** on behalf of **Relink Management WA Pty Ltd** with regards to the proposed mixed-use development, located at 37 Amalfi Avenue, Mindarie.

The subject site is bound by Portofino Promenade to the north, Napoli Park to the west, Genoa Lane and a residential lot to the east and Amalfi Avenue to the south, as shown in Figure 1.

The site is presently vacant and is surrounded by residential and community land uses. The area is under development, with a mix of constructed dwellings and vacant residential lots. It is proposed to develop the site into a mixed-use development, delivering six dwellings and a total of 590 m² of commercial GFA.

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.

3 Referenced documents

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

- *WALGA Commercial and Industrial Waste Management Plan Guidelines;*
- *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.

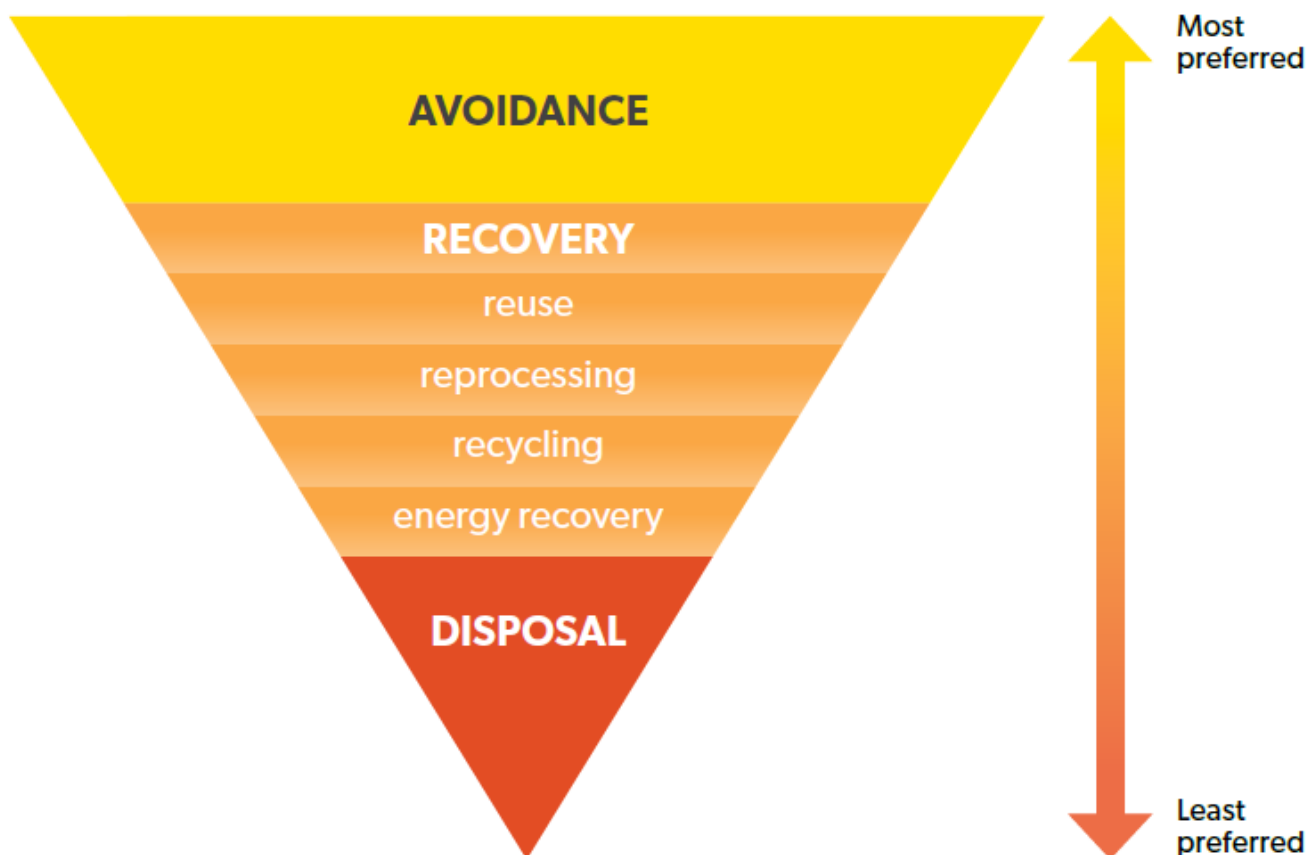


Figure 2: Waste hierarchy

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.

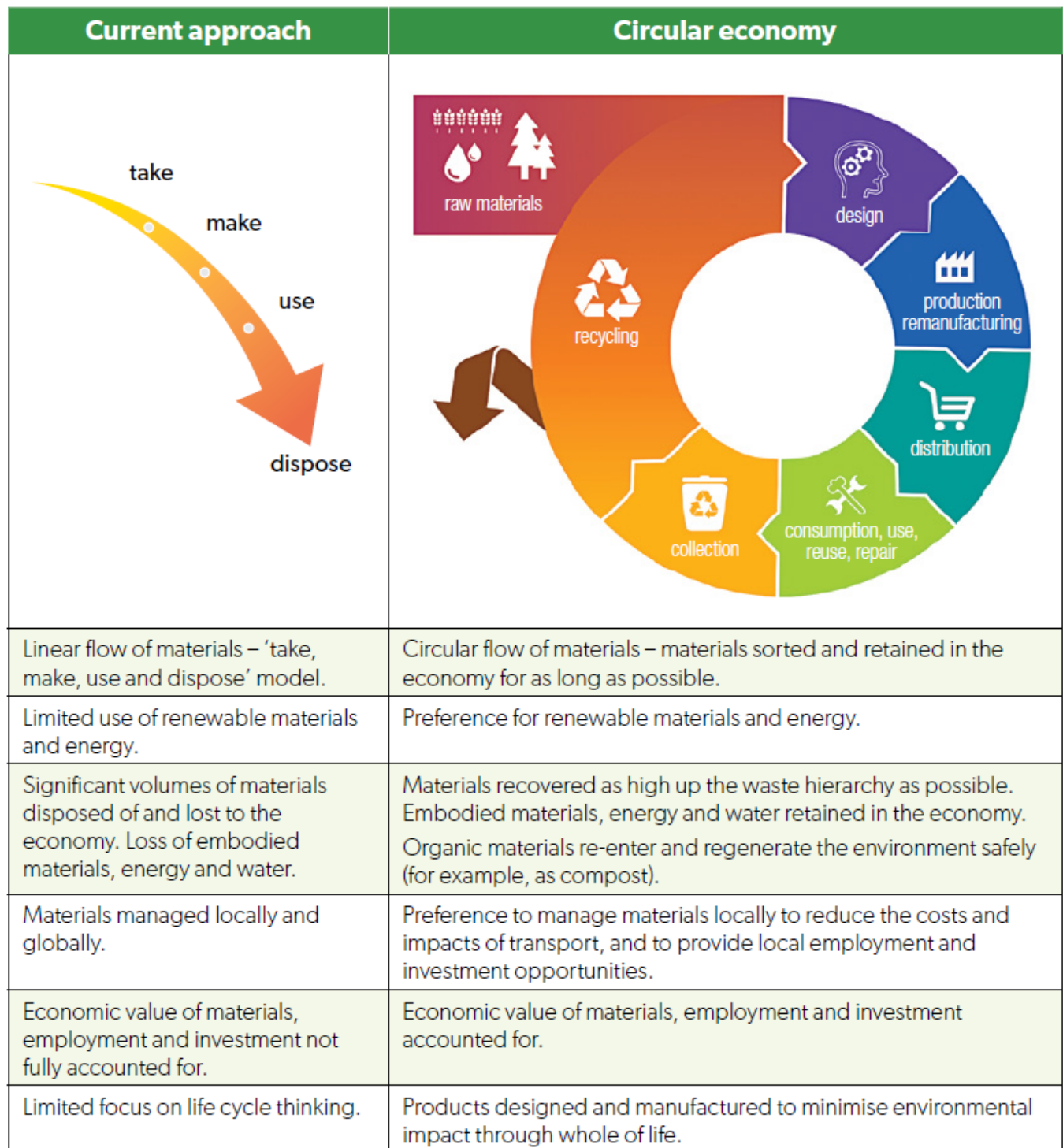


Figure 3: Transitioning to a circular economy



5 Proposed development

The proposal for the subject site is for local centre / commercial development comprising:

- Six residential dwellings;
- A commercial component delivering a total 590m² of GFA, including:
 - Tenancy 1: F&B 205m²
 - Tenancy 2: Commercial/shop 70m²
 - Tenancy 3: Commercial/shop 70m²
 - Tenancy 4: Commercial/shop 70m²
 - Tenancy 5: Commercial/shop 70m²
 - Tenancy 6: Commercial/shop 105m²
- A total of 15 car parking bays for the shared use of commercial staff, customers and residential visitors, including 2 x ACROD bays;
- 11 residential car parking bays, provided within secured parking garages;
- 1 x delivery/service bay, which can accommodate 6.4m Small Rigid Vehicles (SRVs);
- Paved walking link to Napoli Park on the western boundary of the site, with integrated alfresco seating;
- 6 bicycle parking spaces for staff and visitors provided onsite;
- 12 bicycle parking spaces provided in the public reserve on the western and northern boundaries of the site;
- End of trip facilities including separate male and female shower and change room, with lockers; and
- Centralised commercial bin store.

Vehicle access to the site is proposed via one crossover on Amalfi Avenue. People walking and cycling will access the development from the external path network abutting the site.

The development incorporates separate residential and commercial waste management systems to reflect the differing operational requirements of each land use.

Commercial waste collection is proposed to be undertaken via Genoa Lane, with the commercial bin collection zone provided within the site boundary, adjacent to the laneway. Residential bins will be collected via a bin presentation hardstand on Amalfi Avenue, with bins presented on the verge on collection day.

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

6 Waste stream composition and generation

6.1 Waste composition

6.1.1 Commercial waste composition

The composition and amount of waste generated by commercial developments vary in line with individual operations and management.

Examples of typical waste streams generated by commercial operations, and how these individual waste streams are managed are outlined in Table 1.

Commercial waste for this development is planned to be sorted into two streams, general waste and recycling.



Table 1: Types of waste generated by commercial and industrial operations

Waste Stream	Comment
General Waste	The quantity and composition of general waste generated by a commercial or industrial operation can vary significantly. General waste includes non-recyclable plastics, food waste, recyclable packaging which is contaminated with food waste and other non-recyclable materials, as well as recyclables which have not been placed in the correct bin.
Recyclables	Workers frequently consume beverages packaged in recyclable containers, such as aluminium cans and polyethylene terephthalate (PET) bottles and milk is often provided by organisations in liquid paperboard or high density polyethylene (HDPE) containers. These materials can form a significant proportion of the waste stream in commercial and industrial buildings. Occasional company events can also generate irregular but significant quantities of glass and other containers.
Glass	Glass bottles are a primary component of the waste streams generated within licensed venues such as pubs and clubs, as well as food retailers such as cafes and some take-away shops. Glass is very dense which makes it difficult to store and move efficiently.
Office Paper	Waste audits have shown that by quantity, paper is by far the largest waste stream generated from offices. Office paper is generally white, A4-size and 80 grams per square metre (gsm, g/m ²), although many other combinations of colour, size and grade are also generated. Office paper is a higher grade paper and as it is usually generated in large quantities it is generally collected separately and recycled.
Cardboard and Bulk Packaging	Most waste generated from non-food retail facilities is bulk packaging material that protects goods delivered to the facility for sale or distribution.
Plastic Film	Plastic film, such as shrink pallet wrap, is another major component of non-food retail building waste. This material is very bulky, but very light weight and compacts well.
Food Waste	Most commercial and industrial developments generate some quantities of food waste. The volumes of food waste generated within a development can vary significantly depending on the type and scale of the business; ranging from uneaten employee/staff meals within office buildings through to food outlets, which can produce large quantities of food waste on a daily basis.
Cooking Oil & Grease	Used cooking oil is produced in large volumes by food retailers such as fish and chips shops and fried chicken stores. Waste oil can cause significant issues if improperly disposed of to the sewage system.
Controlled Waste	The Environmental Protection (Controlled Waste) Regulations 2004 apply to a controlled waste that is produced by, or as a result of: • An industrial or commercial activity • A medical, nursing, dental, veterinary, pharmaceutical or other related activity • Activities carried out on or at a laboratory • An apparatus for the treatment of sewage. An apparatus for the treatment of sewage. Controlled Waste is defined as all liquid waste, and any waste that cannot be disposed at a Class I, II or III landfill site.
Other wastes	These can include printers, copies, and toner cartridges, IT equipment, batteries, mobile phones, furniture, florescent lights, paint, pallets and mattresses, timber, ferrous and non-ferrous metal.

6.1.2 Residential waste composition

Residential developments typically generate several distinct waste streams that require separate collection and management systems. Understanding the expected composition of these waste streams is essential for determining appropriate storage volumes, collection frequencies, and servicing arrangements.

Table 2 summarises the common waste streams associated with medium- and high-density residential developments and provides indicative commentary on their characteristics and management considerations.

Table 2: Types of waste generated by residential developments

Waste Stream	Comment
General Waste	General waste usually includes non-recyclable materials, such as non-recyclable plastic packaging, paper packaging contaminated with food waste and organic materials, such as garden trimmings and food waste. Batteries, hazardous waste (chemicals, paints, cleaning products, medicines or flammable liquids) should not be included in the general waste stream.
Comingled recyclables	Comingled recyclables consist of the assortment of recyclable materials generated in households. Materials collected for recycling may vary between Local Governments, but generally include plastic and glass containers, paper, cardboard and steel and aluminium cans.
Organic waste	Organic waste, includes garden waste, food scraps, compostable paper (tissues, serviettes, soiled paper, paper plates, etc.) and can make up a significant percentage of the general waste stream.
Household Hazardous Waste	Household hazardous waste (HHW) is broadly defined as leftover household products that are corrosive, toxic, flammable or reactive. If improperly used or disposed of, HHW can be harmful to human health and the environment. HHW includes chemical waste and other hazardous materials, such as batteries, fluorescent lamps, and gas cylinders.
Bulky Waste	Bulky waste can include old and broken furniture and electronic items/white goods and materials generated. Bulky waste can be a significant issue within developments with a high residential turnover, such as rental unit complexes, where tenants are required to dispose of various unwanted household items.



6.2 Waste generation rates

6.2.1 Commercial waste generation rates

The commercial waste generation rates for general waste and recyclables are sourced from the WALGA Guidelines. The commercial waste generation rates are presented in Table 3.

Table 3: Commercial waste generation rates – high waste tenancy mix

Land use	Description	General waste generation rate	Recyclables generation rate
T1	Restaurant	660L/100m ² floor area/day	130L/100m ² floor area/day
T2-5	Takeaway	150L/100m ² floor area/day	150L/100m ² floor area/day
T6	Shops > 100m ² floor area	50L/100m ² floor area/day	50L/100m ² floor area/day

For the purpose of estimating waste generation, Tenancy 1 (tavern) has been assessed using full-week operation reflective of typical food and beverage trading.

The smaller specialty/commercial tenancies (T2–T6) have been based on standard local centre operating patterns (generally 6 days per week depending on use).

These assumptions are conservative and align with WALGA generation-rate guidance for mixed-use centres, noting that actual waste volumes and collection frequencies can be refined following tenancy fit-out and operator confirmation.

6.2.2 Residential waste generation rates

The proposed development is designed to accommodate an individual set of three bins for each dwelling, comprising general waste, FOGO and commingled recycling. No **residential** communal bin storage area is proposed as part of the development.

On this basis, the residential waste management arrangement is based on individual kerbside bin provision rather than a shared storage and collection system, and detailed waste generation calculations for residential communal bin infrastructure is therefore not required in this Waste Management Plan.

6.3 Waste generation calculations

The estimated commercial waste generation for the development is:

- General Waste: 12,500 L per week
- Comingled recyclables: 4,900 L per week.

Detailed waste generation calculations are provided in Appendix D.

7 Design considerations

7.1 Noise

The **applicable** better practice principles which have been adopted for this development to reduce noise include:

☒	Locating bin storage areas and collection points away from neighbours, tenants and public areas to reduce the impact of noise during bin use and collection
☐	Eliminating the need for collection vehicles to reverse (Commercial waste collection is undertaken with minimal and low-speed reversing movements confined to the immediate collection area in Genoa Lane, occurring infrequently and outside peak periods to minimise any amenity or safety impact.)
☒	Using road, driveway and pathway surfacing materials that minimise noise
☒	Considering how materials will be transferred into bins or static compactors at storage points
☒	Proposing collection times which ensure the least amount of disturbance to neighbours, tenants and those using public areas, particularly in mixed-use developments

7.2 Odour

Green waste or food waste (organic waste) are the most likely part of the waste stream to cause odour. Where large amounts of organic waste are generated, having separate and more frequent collections will help to reduce the problem. Alternatively, dedicated freezers can be used to store wrapped food waste until collection. In enclosed storage and service areas, the air flowing from interim storage areas and central waste storage areas should not exit near public areas. Ventilation openings should be located as close to the ceiling and floor as possible and designed to protect against flies and vermin.

The proposed odour control for the waste storage area includes:

☐	The waste storage area is uncovered
☒	The waste storage area is covered. The design of the bin store will provide for adequate natural ventilation through ventilated doors or an alternative method 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.
☐	The waste storage area is completely enclosed with no natural ventilation. A mechanical ventilation system is required, with the following features: • It should be in accordance with the ventilation requirements of the Building Code of Australia and Australian Standard AS 1668.2 <i>The use of Ventilation and Air Conditioning in Buildings</i>. • It should not be connected to the same ventilation system supplying air to the units.



7.3 Hygiene and vermin

Waste not sealed in containers attracts vermin and is potentially unhygienic. To minimise the potential for this, keep waste collection and storage areas free of clutter and dumped waste, do not allow bins to sit open for extended periods of time and **as far as possible, prevent vermin getting into waste collection and storage areas**.

Communal bin storage areas need to be easy to clean, with access to water (a tap and a hose) and **correct drainage to the sewer**. The disposal of water from washing bins and/or waste storage areas to stormwater drains **should be avoided**, wash-down areas having **drainage connected to the sewer**.

Drains to sewer should be located under cover to prevent rainwater inflows. Ideally, having covered floor junctions at walls helps with cleaning and avoids the build-up of dirt/spills. To maintain hygiene wash bins, floors and walls of waste bays and rooms regularly.

The development commercial bin store includes the following features:

☒	Self-closing doors to control vermin
☒	Bin store doors can be locked open while moving bins
☒	Impermeable walls and floor with a tap and hose to facilitate washing of bins and the bin store
☒	Suitably graded floor with a waste drain that is connected to sewer
☒	Designed to prevent storm water from entering the drain

7.4 Security

As far as practicable, the design of waste storage areas should:

- Maximise everyday surveillance by **other tenants**
- Allow and encourage easy access for **tenants and building management** whilst barring access by the public.

Some examples of how this could be done include:

- Locate the bin storage area away from public thoroughfares
- Design bin storage areas that can be locked
- For communal bin areas, ensure they are sufficiently open and well-lit to allow their use after dark.

The proposed development commercial bin store will include lighting and is located in a secure area within the car park. The bin store doors will be locked to prevent public access.

Resident bins will be secured within dedicated storage areas for each dwelling.

8 Waste storage

8.1 Bin storage area design summary

The proposed development incorporates the following design elements which are applicable:

☒	The bin store is large enough for the bins to sit next to each other, not behind each other, as tenants may not take responsibility for rotating bins
☒	The height of the bin store is sufficient for the residual waste bin lids to be opened
☒	Bins are located on-site (not on the verge), and they are screened from any street frontage
☒	Adequate lighting will be provided to allow the usage of the bin store after dark
☒	Internal waste rooms are well ventilated and have a smooth, easily cleanable floor
☒	Suitable drainage, with water discharging into a sewer drain, will be installed to allow the washing of bins
☒	A tap with hose will be available for use by tenants/cleaners to wash out bins
☐	CCTV will be fitted inside the bin room

8.2 Internal bin storage

Each tenancy will be responsible for supplying internal bins for the temporary accumulation of waste. Tenants or hired cleaners will transfer their waste to the centralised bin store, at the end of each trading day, and during the day as required.



8.3 External bin storage areas

Bin storage areas for this development must be adequate to contain all waste streams generated on the premises for the proposed waste collection frequency.

8.3.1 Bin size, quantity and colour

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

- 6 x 1,100L General waste (red lid bin).
- 2 x 1,100L Comingled recycling (yellow lid bin).

The number of commercial bins required for the development is detailed in Appendix D. The development provides excess commercial bin capacity to account for potential future changes to the tenancy mix and seasonal variations in demand, as demonstrated by the 'high waste' tenancy mix assessment.

Residential dwellings are provided with a standard 3 x 240L set of bins per dwelling, facilitating general waste, recycling and FOGO collection.

8.3.2 Bin storage area size

As detailed in Table 4, each 1,100L bin has a footprint area of 1.7m². A minimum 50mm gap is allowed between the bins to allow easy pull movement, and suitable clearance allowed between opposite bins and in walkways to maintain convenient walking access. The proposed bin storage area size is sufficient to accommodate the required bins. An indicative bin layout plan is shown in Appendix B.

Table 4: Mobile Garbage Bin (MGB) dimensions

Bin capacity	80L	120L	140L	240L	360L
Height (mm)	870	940	1065	1080	1100
Depth (mm)	530	560	540	735	885
Width (mm)	450	485	500	580	600
Approximate footprint (m ²)	0.24	0.27	0.27	0.43	0.53

Bin capacity	660L	770L	1,100L	1,300L	1,700L
Height (mm)	1250	1425	1470	1408	1470
Depth (mm)	850	1100	1245	1250	1250
Width(mm)	1370	1370	1370	1770	1770
Approximate footprint (m ²)	1.16	1.5	1.7	1.21	1.27



8.3.3 Commercial bin storage area use

All collections should take place in accordance with all relevant legislation. If the storage area and presentation point are in separate locations, bins will have to be moved by staff, cleaners or caretakers from the storage area to the collection point. In order to protect the occupational health and safety of employees:

Where bins of up to, and including, **660L** in capacity need to be wheeled to the collection point:

☐	The distance should not exceed 75m in all circumstances
☐	The bin transfer grade should not exceed 1:14
☐	There should be no steps or kerbs along the route.

For bins **greater than 660L capacity**, if relocation of bins is required:

☐	Bins should not be wheeled over steps (neither up nor down)
☐	If less than or equal to 1,100L in capacity, bins should not need to be wheeled more than 5m from the interim storage point to the collection point
☐	If greater than 1,500L in capacity, manual manoeuvring of bins should be avoided wherever possible. Where it cannot be avoided (for example if bins are stored in a room or enclosure), the bins should not need to be wheeled more than 3m from the interim storage point to the collection point
☐	The bin-transfer grade should not exceed 1:30.

☒	Note: The above requirements are not applicable as bins are stored within the central bin room and are collected directly by the waste contractor, who wheels bins to the vehicle for emptying and returns them to the bin room. No separate presentation point or tenant bin movement is required.
-------------------------------------	---

8.3.4 Residential bin storage area use

Waste and recycling storage facilities are located in positions that:

☒	Permit easy, direct and convenient access for the users of the facility
☒	Permit easy transfer of bins to the presentation point
☒	Permit easy, direct and convenient access for collection service providers
☒	Are well screened and do not reduce amenity
☒	Are secure and provide protection against potential vandalism
☒	Reduce potential noise pollution and disturbance of residents
☒	Are close to building exits.

Where bins of up to, and including, **360L** in capacity need to be wheeled to the collection point **by residents** (such as within unit complexes and townhouses):

☒	The distance should not exceed 75m in all circumstances
☐	For aged persons or persons with a disability, the distance should be limited to 50m
☒	The bin transfer grade should not exceed 1:14
☒	Bins should not need to be wheeled over steps (neither up nor down).

For bins **greater than 360L capacity**, if relocation of bins is required:

☐	Bins should not be wheeled over steps (neither up nor down)
☐	If less than or equal to 1.0m ³ in capacity, bins should not need to be wheeled more than 5m from the interim storage point to the collection point
☐	If greater than 1.5m ³ in capacity, manual manoeuvring of bins should be avoided wherever possible. Where it cannot be avoided (for example if bins are stored in a room or enclosure), the bins should not need to be wheeled more than 3m from the interim storage point to the collection point
☐	The bin-transfer grade should not exceed 1:30.

☐	Note: The above requirements are not applicable as residents will not be wheeling bins to the collection point. Bins will be transferred by building caretakers or waste contractor staff.
--------------------------	--



9 Waste collection

9.1 Waste vehicle types

Waste collection will be serviced by:

☒	Local government collection service: City of Wanneroo A side loader waste truck will be used to collect residential waste from the Amalfi Avenue verge on scheduled waste collection days.
☒	Private contractor collection service: The commercial bin store will be serviced by a private contractor. A rear loader waste truck will be used, with commercial bins collected directly from the bin store on scheduled collection days.

9.2 Waste collection frequency

9.2.1 Commercial collection frequency

The following commercial waste collection frequency is proposed:

☒	General waste	Three days per week
☒	Comingled recyclables	Three days per week
☐	FOGO	N/A

Collection frequencies are based on conservative pre-development estimates and may be reviewed and adjusted by the waste contractor post-occupation, to reflect actual tenancy operations and observed bin fill rates.

9.2.2 Residential collection frequency

The following waste collection frequency is proposed:

☒	General waste	Once per fortnight
☒	Comingled recyclables	Once per fortnight
☒	FOGO	Once per week

9.3 Waste collection method and presentation points

The proposed waste collection method and presentation point is:

☒	Standard kerbside service by placing bins on the verge: Each resident will be responsible for presenting their bins within the provided bin presentation hardstand on the Amalfi Avenue verge.
☒	Street collection directly from the bin store: Commercial private waste collection will be serviced from the commercial bin store.
☐	Onsite waste collection

Commercial waste trucks are proposed to enter Genoa Lane from Amalfi Avenue, then park adjacent to the site (facing east). Waste contractors will wheel bins for a short distance from the bin store to the rear of the truck to be emptied. Empty bins will then be returned promptly to the bin store. A bin storage and route access plan is included in Appendix B.

Residents will be responsible for transferring bins from their individual bin storage area to the Amalfi Avenue kerbside collection point, either on the evening prior to or on the day of collection. Following collection, bins will be returned to their respective dwelling in a timely manner.

9.4 Vehicle access and maneuvering

Commercial waste trucks are proposed to enter Genoa Lane from Amalfi Avenue, then park within the laneway adjacent to the site.

Commercial collections are expected to occur outside commuter peak periods (typically scheduled between 10:00am and 3:00pm) to minimise interaction with other laneway traffic. Waste collection days will be scheduled to avoid the City of Wanneroo residential waste days.

Overall, the proposed waste collection strategy enables safe and efficient service entirely from within the public road reserve, with negligible impact on surrounding traffic conditions and minimal disruption to residents, pedestrians and cyclists within the area.

Swept path analysis confirms satisfactory waste truck movements and is presented in Appendix C.



10 Additional waste requirements

10.1 Bulk waste

Bulk waste can include old and broken furniture and electronic items/white goods and materials generated. Bulk waste can be stored in the bin store, or other area for a brief time until arrangements can be made for removal.

10.2 E-waste

Storage space for E-waste will be accommodated in designated storage areas. E-waste will be disposed of in a suitable manner, such as bulk drop-off to the tip or using public battery recycling boxes.

10.3 Garden organics

The site caretaker will manage organic garden waste. Garden waste can be composted onsite, placed in general waste bins or can be removed by trailer to be disposed of offsite in a suitable location.

11 Waste management

The building caretaker will be responsible for:

- Cleaning the bin storage areas and facilities; and,
- Regularly cleaning the bins.

Tenants and staff should comply with 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 another appropriate method.

Each tenancy will be responsible for regularly emptying their bins and transferring the waste to the centralised bin store.

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



12 Signage and education

Regardless of the type of building or development, signage and education are critical to ensuring that the waste and recycling system is used appropriately and works effectively. Clear signage is vital, as it provides those using the waste management system with instructions on how to use the system.

Education and communication must be regular and ongoing in order to overcome the transient nature of cleaning contractors and the commercial rental market. The main aspects of signage to be considered are:

- *Waste recycling and organics bins must be clearly and correctly labelled at all times*
- *Waste storage areas must have clear signage instructing cleaners and tenants how to correctly separate waste, recycling and organic materials. Pictorial guides and community languages should be used if appropriate*
- *The location of, and directions to, waste storage areas must be well signposted, with directional signs, arrows or lines on the floor indicating the most direct routes for cleaners and tenants*
- *All hazards or potential dangers associated with the waste facilities should be clearly identified, especially those linked to compaction or other waste handling equipment*
- *Emergency contact information should be displayed in case there are any issues with the waste and recycling systems/services in the building.*
- *All signage should conform to the relevant Australian Standard and relevant standard signage requirements.*

13 Conclusion

The waste generation calculations confirm that the proposed bin storage area has sufficient capacity to accommodate the forecast commercial and residential waste volumes under an adopted high-waste tenancy mix scenario.

The design allows for separation of waste streams, promotes recycling recovery, and provides convenient access for both building occupants and collection contractors.

The development aligns with the WALGA Waste Management Planning Guidelines and the Waste Authority WA *Waste Avoidance and Resource Recovery Strategy for 2030*, supporting the broader objectives of waste minimisation, resource recovery, and environmental sustainability.

In conclusion, the proposed waste management strategy is considered practical, efficient, and fully compliant, ensuring that waste servicing can be undertaken without adverse impact on site operations, amenity, or the surrounding transport network.



Appendices

Appendix A: Proposed development plans



LOT 2401 PORTOFINO PROMENADE

NEW LOCAL CENTRE + TOWNHOUSE DEVELOPMENT

SITE PLAN

SCALE: 1:200 @ A1
DATE: 09/02/2025
DRAWN: MZ
CHECKED: JRM
DESIGNED: JRM
DRAWING: 04-110 REV: H



T&Z Architects
www.tz.com.au
+61 8 9423 0000
13/130 Market St
West Perth, WA 6005



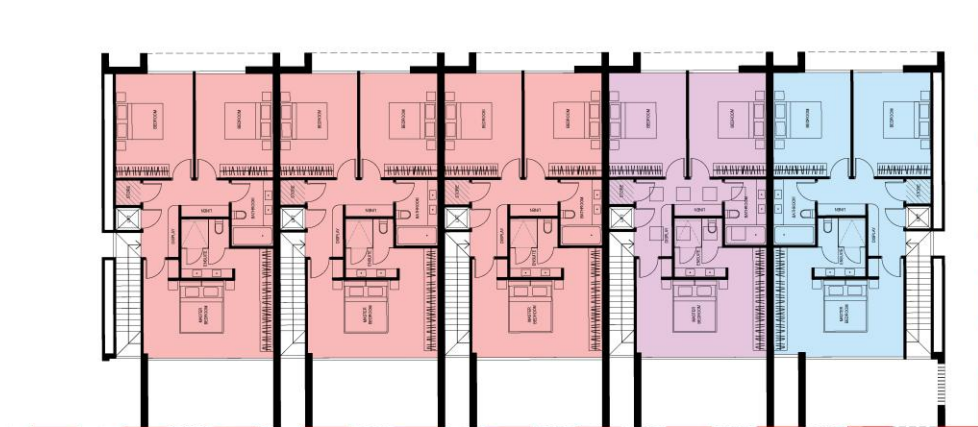
LOT 2401 PORTOFINO PROMENADE

NEW LOCAL CENTRE + TOWNHOUSE DEVELOPMENT

TOWNHOUSE FLOOR PLANS



LEVEL 1



LEVEL 2



SCALE: 1:100 @ A1
 DRAWN: 22/02/2025
 DESIGNED: NZ
 JOB NO: 220022
 DRAWING: DA-2100 REV: H

T&Z Architects
 1/100 Amalfi Avenue
 Mindarie, WA 6050
 +61 8 9423 0000
 mail@tzt.com.au
 L3, 679 Murray St
 West Perth, WA 6005



This drawing is copyright and the property of T&Z Pty Ltd. Copyright Act 1969 and must not be copied, altered or used without authority.

Appendix B: Bin storage and presentation plans





Revision notes:

Rev.	Date	Notes:
1	11/05/2026	6 x 240 L General Waste Bins 6 x 240 L Recycling Bins 6 x 240 L FOGO Bins

Drawn by:

Paul Chantoula

Client:

Relish Management WA Pty Ltd

Project:

U25 U23 - 37 Ansell Avenue, Midvale
Proposed Mixed-Use Development

Date:

11/05/2026

Scale:

A3

Revision:

1/200

Revision:

sl00a



Sustainable Transport. Safe Solutions
PO Box 4315, Balmain NSW 1571
02 9550 9444
urbii.com.au

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 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 5: Commercial weekly waste generation and collection

Land use	Description	Floor area (m2)	General waste generation rate	Recyclables generation rate	General waste daily generation (L)	Weekly general waste	Weekly recyclables
T1 - Tavern	Restaurant	205	660L/100m ² floor area/day	130L/100m ² floor area/day	1353	9471	1865.5
T2	Takeaway	70	150L/100m ² floor area/day	150L/100m ² floor area/day	105	630	630
T3	Takeaway	70	150L/100m ² floor area/day	150L/100m ² floor area/day	105	630	630
T4	Takeaway	70	150L/100m ² floor area/day	150L/100m ² floor area/day	105	630	630
T5	Takeaway	70	150L/100m ² floor area/day	150L/100m ² floor area/day	105	735	735
T6	Shops > 100m2 floor area	105	50L/100m ² floor area/day	50L/100m ² floor area/day	52.5	367.5	367.5
Total					1825.5	12463.5	4858

Waste type	Weekly waste generation (L)	Weekly collection frequency
General waste	12463.5	3
Recyclables	4858	3

General Waste Bins

Bin Size (L)	Number of bins	Weekly capacity
1100	6	19800
Total weekly capacity (L)		19800

Recycle Waste Bins

Bin Size (L)	Number of bins	Weekly capacity
1100	2	6600
Total weekly capacity (L)		6600