

WASTE MANAGEMENT REPORT

New Offices for the Western Australian Prison Offices Union

Lot 18 (#38) Summers Street, East Perth WA 6004



Prepared by:

WHITEHAUS
a r c h i t e c t s

www.whitehaus.com.au

Rev	Description	Date	Checked
A	Issued for Comment	07.12.2020	
B	Issued for Development Approval	11.12.2020	

INTRODUCTION & OBJECTIVES OF THE WASTE MANAGEMENT PLAN.

The City of Vincent requires a Waste Management Plan (WMP) to be included as part of a Development Application for the construction of a 3-storey office building, consisting of two levels of offices and associated amenities with entry lobby and undercover carpark at ground level located at Lot 18 (No. 38) Summers Street, East Perth. The objective of this plan is to ensure that waste management is undertaken effectively, efficiently, and sustainably during the operation of the residential complex on completion and during its occupation.

In simple terms, the WMP addresses the day to day needs of the operation of the proposed residential development at Lot 18 Summers Street to ensure that the plan adequately caters for the anticipated quantities of waste and recyclables to be generated, provides suitable Bin Storage Areas including appropriate receptacles; and allows for efficient collection of receptacles by appropriate waste collection vehicles.

The estimated waste generated, receptacle size, number of receptacles, collection frequency and collection method for the Proposal is outlined in the table below. The anticipated quantities of refuse and recyclables for the proposal were based upon the City of Vincent's 'Waste Guidelines for New Developments' (May 2020).

This WMP has been prepared in accordance with requirements of the City of Vincent's "Waste Guidelines for New Developments" and other policies as applicable.

1. THE DEVELOPMENT PROPOSAL/WASTE GENERATION

Waste Generation.

Refer to Table 1.1. Commercial waste and recycling generation rates / storage requirement as below:

Table 1.1 - Commercial waste and recycling generation rates / storage requirement

Commercial				
Serviced Apartment, Backpacker or Boarding Houses (for accommodation only, kitchens, catering areas, common areas in a development require separate waste generation assessment)	30	20	10	L/bedroom/week
Offices and Medical/Consulting Rooms including dentist/veterinary	15	15	5	L/100m ² /day
Hotel or Motel Accommodation (for accommodation only other areas within the hotel/motel require separate waste generation assessment)	30	20	10	L/bedroom/week
Licensed Club	50	80		L/100m ² /day
Education/Training (teaching space)	5	5		L/100m ² /day
Childcare	240	240	120	L/100m ² /week
Function Room	200	200	80	L/100m ² /day
Gym	10	10		L/100m ² /day
Retirement Village	60	60	20	L/apartment/week
Independent Living	80	80	30	L/apartment/week
Community or sports centre, Place of Worship, Recreation (private)	50	50		L/100m ² /day

Note: Waste generation calculations are based on operational days. Some use types ie: Function Room may only be used a couple of days a week, therefore waste generation calculations would be based on 2 days of operation.

The waste generation volumes in litres per week (L/week) of general waste, recyclables and organic waste adopted for this waste assessment are shown in modified Table 1.2 below. **The following figures are based on the development NLA of 429.35m².**

Table 1.2 – Waste generation volumes

Building Area – 480 m ²	Waste Generation Rate (L/100m ² /Week)	Waste Generation (L/Week)
Red Lid – General Waste (weekly)	15	64.5
Yellow Lid – Recycling Waste (weekly)	15	64.5
FOGO – (weekly)	5	21.5
Total		150.5

Waste generation is estimated by volume in litres (L) as this is generally the influencing factor when considering receptacle size, numbers and storage space required.

As shown in Table 1.2, it is anticipated that the development in this proposal will generate a total of 64.5L of general waste refuse per week, 129L of recyclables per fortnight, and 21.5L of FOGO waste refuse per week.

Receptacle Sizes.

The information in Table 1.3 below presents the dimensions of receptacle sizes supplied by City of Vincent ranging from 120L to 240L. It should be noted that these receptacle dimensions are approximate and can vary slightly between suppliers.

Table 1.3: Typical Receptacle Dimensions

Bin Size (L)	Depth (m)	Width (m)	Height (m)	Area (m ²)
120	0.560	0.480	0.930	0.270
140	0.615	0.535	0.915	0.490
240	0.730	0.580	1.080	0.430

Reference: SULO Bin Specification Data Sheets

Bin Requirement Calculations.

To ensure sufficient area is available for storage of the waste receptacles, the quantity of receptacles required for Bin Storage Area was modelled utilising the range of receptacle sizes as shown in Table 2.3. This was based on one collection per week of general waste refuse and alternating fortnightly collections of recyclables.

Table 1.4: Receptacle Requirements

Waste Stream	Waste Generation	Number of Receptacles Required		
		120L	140	240L
General Waste (Red)	64.5L / week	1	1	0.487 (1)
Recycling (Yellow)	129L / fortnight	1	2	0.487 (1)
FOGO (Lime Green)	21.5L / week	1	1	0.162 (1)
Green Waste	To be arranged separately			

Based on receptacle dimensions specified in Table 1.3, the Bin Storage Requirement has been calculated to require the following receptacles:

- 1 x standard 240L Yellow Lid Recycling Waste receptacle in common bin store area;
- 1 x standard 120L Red Lid Recycling Waste receptacle in common bin store area;
- 1 x standard 120L Lime Green lid FOGO Waste receptacle in common bin store area.

CONCLUSION; Adequate Waste Capacity with bins will be provided.

In addition to the above requirements, this development requires the use of:

- 1 x standard 660L receptacle for shredded confidential document in common bin store area.

2. SIZE AND LOCATIONS OF THE BIN STORES.

There will be 1 Bin Store located on the site, located within the carpark towards the rear of the site.

This Bin Store will have the capacity to contain the required receptacles.

The design of the common Bin Storage Area will consider the following:

- Impervious floors draining to waste traps that are connected to the sewer system and NOT the soak well/storm water system;
- A tap for washing of receptacles and Bin Storage Area as required;
- Adequate width for easy manoeuvring of receptacles;
- Doors to the Bin Storage Area must be wide enough to fit bins through and self-closing and
- Area to be naturally ventilated to a suitable standard;
- Appropriately signposted;
- The Bin Storage Area shall be located behind the building setback line;
- Receptacles will not be visible from the property boundary or areas trafficable by the public;
- Receptacles are reasonably secured from theft and vandalism.
- The Walls will be solid and impervious for easy cleaning
- Bin Store will be lit in accordance with the relevant local and Australian Standards if and where required.

Please refer to the attached plans for sizes and locations of the proposed Bin Stores.

3. GREEN WASTE

The City does not currently have a green waste bin. At this time, the City offers a twice yearly bagged and loose green waste collection service, details of this can be found on the City's website.

4. BULK WASTE

The City offers residents 2 x bulk waste verge collections each year.

Bulky Waste collection takes place on the verge alongside the Bin Presentation Area or at free drop off points at the west metro recycling centre.

5. MANAGEMENT OF THE BINS & MOVEMENT FOR COLLECTION.

The Property/Strata Manager will engage a Caretaker / responsible person for the management of the Bins to

- ferry the receptacles to and from the Bin Storage Area and on collection days.
- Ensuring the bins are returned to Bin Store on site once emptied by council collection, generally on the same day as collection.
- Cleaning, maintenance of the bins themselves.

6. LOCATION OF THE BIN STORES ON SITE.

The Bin Store is located inside the parking area towards the rear of the site to allow for easy access and use by the employees.

7. BIN COLLECTION

Bin collection will be by The City of Vincent on standard bin collection round.

The City will service the proposal by providing one (1) 120L red lid receptacles for general waste plus one (1) 240lt yellow lid receptacles for recyclables plus one (1) 120lt lime green lid receptacles for FOGO waste which are to be collected by the City's waste collection vehicle.

The City's waste collection vehicle will service the receptacles from the Bin Presentation Area located on the verge at Summers Street.

Collection of the 660L recycling receptacle will be by commercial arrangement.

The Property Caretaker will ferry the receptacles to and from the common Bin Storage Area and Bin Presentation Area on collection days. The City's waste collection vehicle will collect waste from the Proposal weekly for refuse and alternating fortnights for recyclables.

8. CONCLUSION

As demonstrated within this WMP, the Proposal provides a sufficient Bin Storage Areas for general and recycling waste based on a suitable configuration of receptacles. This indicates that a satisfactorily designed Bin Storage Area has been provided and collection of waste receptacles can be completed from this Proposal.

The above is achieved using:

- One (1) 140L red lid general waste receptacle collected once per week;
- One (1) 240L recycling receptacle collected once per fortnight; and
- One (1) 140L FOGO receptacle collected once per week.
- One (1) 660L paper recycling receptacle collected by commercial arrangement.

The City's waste collection vehicle will service the receptacles from the Bin Presentation Area located off the laneway to the rear off the site. The Strata Manager / responsible person will ferry the receptacles to and from the Bin Storage Area and Bin Presentation Area on collection days.

A Strata Manager / responsible person will oversee the relevant aspects of waste management at the Proposal.

9. ATTACHMENTS (that form part of this WMP)

- Attachment 01 – Locality Plan
- Attachment 02 – Bin Storage Area

1 - Locality – Proposed development @ Lot 18 Summers Street, East Perth



2 - Refuse Bin Storage location

