



Waste Management Plan

Part Lot 2076 Butler Boulevard, Butler

Prepared for Shimal Realstar Pty Ltd

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Executive Summary

Shimal Realstar Pty Ltd is seeking development approval for the proposed fast food development at Part Lot 2076 Butler Boulevard, Butler (the Proposal).

To satisfy the conditions of the development application the City of Wanneroo (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

A summary of the bin size, numbers, collection frequency and collection method is provided in the below table.

Proposed Waste Collection Summary

Waste Type	Generation (L/week)	Bin Size (L)	Number of Bins	Collection Frequency	Collection
Refuse	2,783	1,100	Two	Twice each week	Private Contractor
Recycling	2,783	1,100	Two	Twice each week	Private Contractor

A private contractor will service the Proposal onsite using the Loading/Delivery Bay, adjacent to the Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Butler Boulevard.

A building manager will oversee the relevant aspects of waste management at the Proposal.

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1 Introduction

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To satisfy the conditions of the development application the City of Wanneroo (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

The Proposal is bordered by Butler Boulevard to the north, proposed Lot 2076 Butler Boulevard Development Applications to the east and west, and residential developments to the south, as shown in Figure 1.

1.1 Objectives and Scope

The objective of this WMP is to outline the equipment and procedures that will be adopted to manage waste (refuse and recyclables) at the Proposal. Specifically, the WMP demonstrates that the Proposal is designed to:

- Adequately cater for the anticipated volume of waste to be generated;
- Provide an adequately sized Bin Storage Area, including appropriate bins; and
- Allow for efficient collection of bins by appropriate waste collection vehicles.

To achieve the objective, the scope of the WMP comprises:

- Section 2: Waste Generation;
- Section 3: Waste Storage;
- Section 4: Waste Collection;
- Section 5: Waste Management; and
- Section 6: Conclusion.

2 Waste Generation

The following section shows the waste generation rates used and the estimated waste volumes to be generated at the Proposal.

2.1 Proposed Tenancies

The anticipated volume of refuse and recyclables is based on the floor area (m²) of the proposed Fast Food tenancy (including outdoor dining) – 265m².

2.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Gosnells *Information Sheet – Waste Collections* as these Guidelines have specific waste generation rates pertaining to fast food outlets.

Table 2-1 shows the waste generation rates which have been applied to the Proposal.

Table 2-1: Waste Generation Rates

Tenancy Use Type	Guideline Reference	Refuse Generation Rate	Recycling Generation Rate
Fast Food	Gosnells – Fast Food	150L/100m ² /day	150L/100m ² /day

2.3 Waste Generation Volumes

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

Waste generation volumes in litres per week (L/week) adopted for this waste assessment is shown in Table 2-2. It is estimated that the fast food tenancy will generate 2,783L of refuse and 2,783L of recyclables each week.

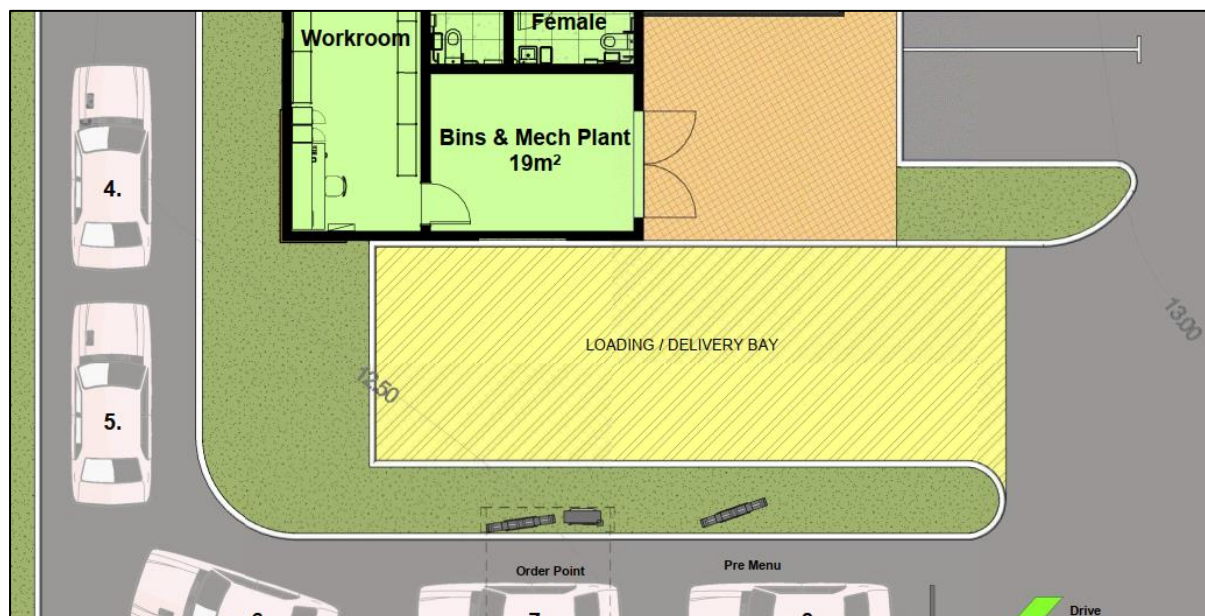
Table 2-2: Estimated Waste Generation

Fast Food	Area (m ²)	Waste Generation Rate (L/100m ² /day)	Waste Generation (L/week)
Refuse	265	150	2,783
Recyclables	265	150	2,783
Total			5,566

3 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Area, as shown in Diagram 1, and discussed in the following sub-sections.

Diagram 1: Bin Storage Area and Loading/Delivery Bay



3.1 Internal Bins

To promote positive recycling behaviour and maximise diversion from landfill, internal bins will be available throughout the Proposal for the source separation of refuse and recycling.

These internal bins will be collected by the staff/cleaners and transferred to the Bin Storage Area for consolidation into the appropriate bins.

All bins will be colour coded and labelled in accordance with Australian Standards (AS 4123.7) to assist staff and cleaners to dispose of their separate waste materials in the correct bins.

3.2 Bin Sizes

Table 3-1 gives the typical dimensions of standard bins sizes that may be utilised at the Proposal. It should be noted that these bin dimensions are approximate and can vary slightly between suppliers.

Table 3-1: Typical Bin Dimensions

Dimensions (m)	Bin Sizes		
	240L	660L	1,100L
Depth	0.730	0.780	1.070
Width	0.585	1.260	1.240
Height	1.060	1.200	1.330

Reference: SULO Bin Specification Data Sheets

3.3 Bin Storage Area Size

To ensure sufficient area is available for storage of the bins, the amount of bins required for the Bin Storage Area was modelled utilising the estimated waste generation Table 2-2, bin sizes in Table 3-1 and based on collection of refuse and recyclables two times each week.

Based on the results shown in Table 3-2 the Bin Storage Area has been sized to accommodate:

- Two 1,100L refuse bins; and
- Two 1,100L recycling bins.

Table 3-2: Bin Requirements for Bin Storage Area

Waste Stream	Waste Generation (L/week)	Number of Bins Required		
		240L	660L	1,100L
Refuse	2,783	6	3	2
Recycling	2,783	6	3	2

The size and location of the Bin Storage Area is shown in Diagram 1.

3.4 Bin Storage Area Design

The design of the Bin Storage Area will take into consideration:

- Smooth impervious floor sloped to a drain connected to the sewer system;
- Taps for washing of bins and Bin Storage Area;
- Adequate aisle width for easy manoeuvring of bins;
- No double stacking of bins;
- Doors to the Bin Storage Area self-closing and vermin proof;
- Doors to the Bin Storage Area wide enough to fit bins through;
- Ventilated to a suitable standard;
- Appropriate signage;
- Undercover where possible and be designed to not permit stormwater to enter the drain;
- Located behind the building setback line;
- Bins not to be visible from the property boundary or areas trafficable by the public; and
- Bins are reasonably secured from theft and vandalism.

Bin numbers and storage space within the Bin Storage Area will be monitored by the building manager during the operation of the Proposal to ensure that the number of bins and collection frequency is sufficient.

4 Waste Collection

A private waste collection contractor will service the Proposal and provide two 1,100L bins for refuse and two 1,100L bins for recyclables. The private contractor will collect refuse and recyclables twice each week utilising a rear loader waste collection vehicle.

The private contractor's rear loader waste collection vehicle will service the bins onsite, directly from Loading/Delivery Bay adjacent to the Bin Storage Area, refer Diagram 1. The private contractor's rear loader waste collection vehicle will travel with left hand lane traffic flow on Butler Boulevard and turn into the Proposal in forward gear, complete a multipoint turn within the Proposals carpark and pull into the Loading/Delivery Bay directly adjacent to the Bin Storage Area for servicing.

Private contractor's staff will ferry bins to and from the rear loader waste collection vehicle and the Bin Storage Area during servicing. The private contractor will be provided with key/PIN code access to the Bin Storage Area and security access gates to facilitate servicing, if required.

Once servicing is complete the private contractor's rear loader waste collection vehicle will exit the Loading/Delivery Bay in a forward motion, turning onto Butler Boulevard moving with traffic flow.

The above servicing method will preserve the amenity of the area by removing the requirement for bins to be presented to the street on collection days. In addition, servicing of bins onsite will reduce the noise generated in the area during collection.

4.1 Bulk and Speciality Waste

Bulk and speciality waste materials will be removed from the Proposal as they are generated on an 'as required' basis.

Adequate space will be allocated throughout the Proposal for the storage of bulk and specialty wastes that are unable to be disposed of within the bins in the Bin Storage Area. These may include items such as:

- Refurbishment wastes from fit outs;
- Batteries and E-wastes;
- White goods/appliances;
- Used Cooking Oil;
- Cleaning chemicals; and
- Commercial Light globes.

These materials will be removed from the Proposal once sufficient volumes have been accumulated to warrant disposal. A temporary skip bin could be utilised for collections, if required. Bulk and specialty waste collection will be monitored by the building manager who will organise their transport to the appropriate waste facility, as required.

5 Waste Management

A building manager will be engaged to complete the following tasks:

- Monitoring and maintenance of bins and the Bin Storage Area;
- Cleaning of bins and Bin Storage Area, when required;
- Ensure all tenants at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor tenant behaviour and identify requirements for further education and/or signage;
- Monitor bulk and speciality waste accumulation and assist with its removal, as required;
- Regularly engage with tenants to develop opportunities to reduce waste volumes and increase resource recovery; and
- Regularly engage with the private contractors to ensure efficient and effective waste service is maintained.

6 Conclusion

As demonstrated within this WMP, the Proposal provides a sufficiently sized Bin Storage Area for storage of refuse and recyclables, based on the estimated waste generation volumes and suitable configuration of bins. This indicates that an adequately designed Bin Storage Area has been provided, and collection of refuse and recyclables can be completed from the Proposal.

The above is achieved using:

- Two 660L refuse bins, collected two times each week; and
- Two 660L recycling bins, collected two times each week.

A private contractor will service the Proposal onsite using the Loading/Delivery Bay, adjacent to the Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Butler Boulevard.

A building manager will oversee the relevant aspects of waste management at the Proposal.

Figures

Figure 1: Locality Plan



LEGEND

- Site Boundary
- Lot Boundary

Cadastre

- Freehold
- Road

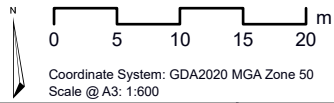
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LOCALITY

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Butler WA 6036

Shimal Realstar Pty Ltd



Prepared: T Baskerville	Date: 15/11/2023
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Figure 01

Data source: Roads, Cadastre - Landgate, 2023, Imagery: Nearmap, 2023,



Assets | Engineering | Environment | Noise | Spatial | Waste

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