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Waste Management Plan

1022 Albany Highway, East Victoria Park

Prepared for Woolworths Group

11 June 2024

Project Number: TW20080

DOCUMENT CONTROL

Version	Description	Date	Author	Reviewer	Approver
1.0	First Approved Release	24/07/2020	RH	DP	RH
2.0	Second Approved Release	1/11/2021	RH	DP	DP
3.0	Third Approved Release	22/02/2024	DP	RH	DP
4.0	Fourth Approved Release	11/06/2024	DP	RH	DP

Approval for Release

Name	Position	File Reference
Dilan Patel	Project Manager – Waste Management Consultant	TW20080_01_Waste Management Plan_4.0
Signature	Dilan Patel Digitally signed by Dilan Patel Date: 2024.06.11 14:01:43 +08'00'	

Executive Summary

Woolworths Group is seeking development approval for the proposed commercial development located at Lots 488, 30, 131 and 132 Shepperton Road and Lots 1, 480-481 and 8 Albany Highway, East Victoria Park (the Proposal).

To satisfy the conditions of the development application the Town of Victoria Park (the Town) 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 Town'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	15,669	1,100	Five	Three times each week	Private Contractor
Recycling	5,029	1,100	Two	Three times each week	Private Contractor

A private contractor will service the Proposal onsite, directly from the Bin Storage Area utilising the dedicated Loading Area. The private contractor's waste collection vehicle will enter the Proposal in forward gear via Shepperton Road and exit in forward gear via Lane 54.

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

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1 Introduction

Woolworths Group is seeking development approval for the proposed commercial development located at Lots 488, 30, 131 and 132 Shepperton Road and Lots 1, 480-481 and 8 Albany Highway, East Victoria Park (the Proposal).

To satisfy the conditions of the development application the Town of Victoria Park (the Town) 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 Town's requirements.

The Proposal is bordered by commercial properties to the north, Shepperton Road to the east and Albany Highway to the south and to the west, 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 (m^2) of the commercial tenancies at the Proposal. The Proposal consists of the following:

- Speciality Retail – 92m^2;
- Speciality Retail – 93m^2;
- Speciality Retail – 72m^2;
- Speciality Retail – 72m^2;
- Speciality Retail – 73m^2;
- Food and Beverage (Restaurant Use) – 76m^2;
- Food and Beverage (Restaurant Use) – 120m^2;
- Speciality Retail – 82m^2;
- Food and Beverage (Restaurant Use) – 60m^2;
- Specialty Retail – 117m^2;
- Specialty Retail – 89m^2;
- Kiosk – 50m^2;
- Childcare – 327.2m^2; and
- Supermarket – 3,755m^2.

Please note, the Supermarket has its own back of house and manages waste through its own internal processes governed by national waste collections contracts, and therefore has not been included as part of this report.

2.2 Waste Generation Rates

The estimated amount of refuse and recyclables to be generated by the Proposal is based on the Western Australian Local Government Association's (WALGA) *Commercial and Industrial Waste Management Plan Guidelines* (2014), the City of Melville's *Waste and Recyclables Collection for Multiple Dwellings, Mixed Use Developments and Non Residential Developments Policy LPP1.3* (2016) and the City of Melbourne's *Guidelines for Waste Management Plans* (2021).

It should also be noted that a conservative approach has been taken with regards to waste generation across the Proposal by overestimating the potential waste volumes for the commercial tenancies. This includes the following measures:

- Where the final use for the food and beverage commercial tenancies are still unknown, a "restaurant" waste generation rate has been utilised. It is considered highly unlikely that these food and beverage tenancies at the Proposal will all operate as formal restaurants, however, this generation rate has been used as it is the highest of all food and beverage tenancy types and is therefore overestimating the potential volume of waste generated; and

- Seven days of operation has been assumed for all commercial tenancies. This is considered to be an over estimation as it is not uncommon for food and beverage and speciality retail etc to close operations post weekend trading, therefore resulting in an over estimation of waste volumes generated.

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

Table 2-1: Waste Generation Rates

Tenenacy Use Type	Guideline Reference	Refuse Generation Rate	Recycling Generation Rate
Speciality Retail	WALGA – Speciality Retail (<100m^2)	50L/100m^2/day	25L/100m^2/day
Speciality Retail	WALGA – Speciality Retail (<100m^2)	50L/100m^2/day	50L/100m^2/day
Speciality Retail	WALGA – Speciality Retail (<100m^2)	50L/100m^2/day	25L/100m^2/day
Speciality Retail	WALGA – Speciality Retail (<100m^2)	50L/100m^2/day	25L/100m^2/day
Speciality Retail	WALGA – Speciality Retail (<100m^2)	50L/100m^2/day	25L/100m^2/day
Food and Beverage (Restaurant)	WALGA – Restaurant	660L/100m^2/day	130L/100m^2/day
Food and Beverage (Restaurant)	WALGA – Restaurant	660L/100m^2/day	130L/100m^2/day
Speciality Retail	WALGA – Speciality Retail (<100m^2)	50L/100m^2/day	25L/100m^2/day
Food and Beverage (Restaurant)	WALGA – Restaurant	660L/100m^2/day	130L/100m^2/day
Speciality Retail	WALGA – Speciality Retail (>100m^2)	50L/100m^2/day	50L/100m^2/day
Speciality Retail	WALGA – Speciality Retail (<100m^2)	50L/100m^2/day	25L/100m^2/day
Kiosk	Melville – Takeaway Food Outlet	80L/100m^2/day	40L/100m^2/day
Childcare	Melbourne – Childcare	350L/100m^2/week	350L/100m^2/week

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 Proposal will generate 15,669L of refuse and 5,029L of recyclables each week.

Table 2-2: Estimated Waste Generation

Tenancy Use Type	Area (m^2)	Waste Generation Rate	Waste Generation (L/week)
Refuse			
Speciality Retail	92	50L/100m^2/day	322
Speciality Retail	93	50L/100m^2/day	326
Speciality Retail	72	50L/100m^2/day	252
Speciality Retail	72	50L/100m^2/day	252
Speciality Retail	73	50L/100m^2/day	256
Food and Beverage (Restaurant)	76	660L/100m^2/day	3,511
Food and Beverage (Restaurant)	120	660L/100m^2/day	5,544
Speciality Retail	82	50L/100m^2/day	287
Food and Beverage (Restaurant)	60	660L/100m^2/day	2,772
Speciality Retail	117	50L/100m^2/day	410
Speciality Retail	89	50L/100m^2/day	312
Kiosk	50	80L/100m^2/day	280
Childcare	327.2	350L/100m^2/week	1,145
		Total	**15,669**
Recyclables			
Speciality Retail	92	25L/100m^2/day	161
Speciality Retail	93	50L/100m^2/day	163
Speciality Retail	72	25L/100m^2/day	126
Speciality Retail	72	25L/100m^2/day	126
Speciality Retail	73	25L/100m^2/day	128
Food and Beverage (Restaurant)	76	130L/100m^2/day	692
Food and Beverage (Restaurant)	120	130L/100m^2/day	1,092
Speciality Retail	82	25L/100m^2/day	144
Food and Beverage (Restaurant)	60	130L/100m^2/day	546
Speciality Retail	117	50L/100m^2/day	410
Speciality Retail	89	25L/100m^2/day	156
Kiosk	50	40L/100m^2/day	140
Childcare	327.2	350L/100m^2/week	1,145
		Total	**5,029**

3 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Area, refer Diagram 1.

3.1 Internal Bins

To promote positive recycling behaviour and maximise diversion from landfill, each commercial tenancy will have two internal bins for the separate disposal of refuse and recyclables. Waste from these internal bins will be transferred by the tenant, staff or cleaners to the Bin Storage Area and deposited into the appropriate refuse and recycling 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
Floor area (m^2)	0.427	0.983	1.327

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 in Table 2-2, bin sizes in Table 3-1 and based on collection of refuse and recyclables three times each week.

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

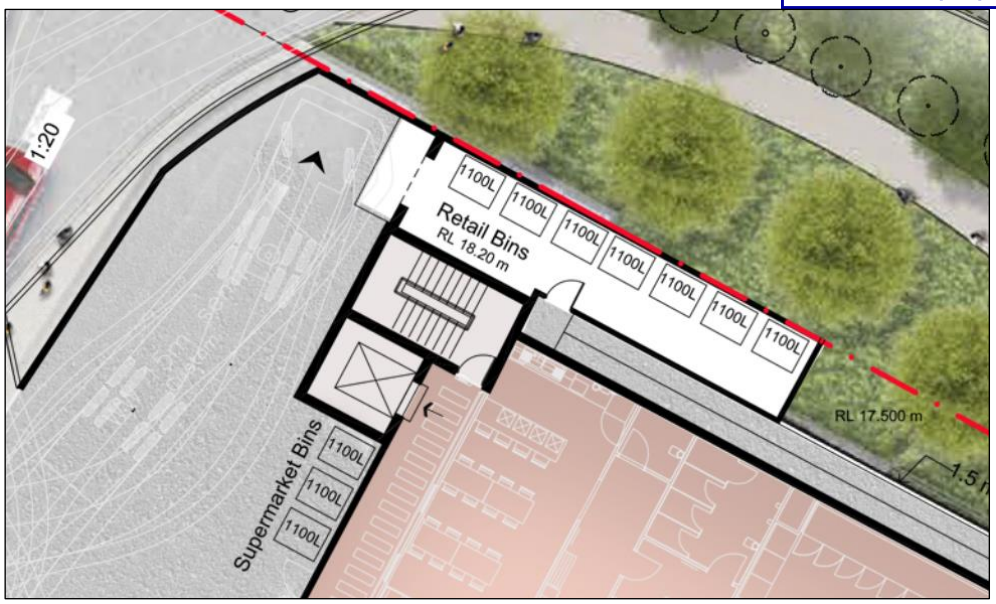
- Five 1,100L refuse bins; and
- Two 1,100L recycling bins.

Table 3-2: Bin Requirements for Bin Storage Area

Waste Stream	Waste Generation (L/week)	Number of Bins Required		
		240L	660L	1,100L
Refuse	15,669	22	8	5
Recycling	5,029	7	3	2

The location of these bins within the Bin Storage Area is shown in Diagram 1.

Diagram 1: Bin Storage Area Location



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 into 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/caretaker during the operation of the Proposal to ensure that the number of bins and collection frequency is sufficient.

4 Waste Collection

A private contractor will service the Proposal and provide the commercial tenancies with five 1,100L bins for refuse and two 1,100L bins for recyclables.

The private contractor will collect refuse and recyclables three times each week utilising a rear loader waste collection vehicle.

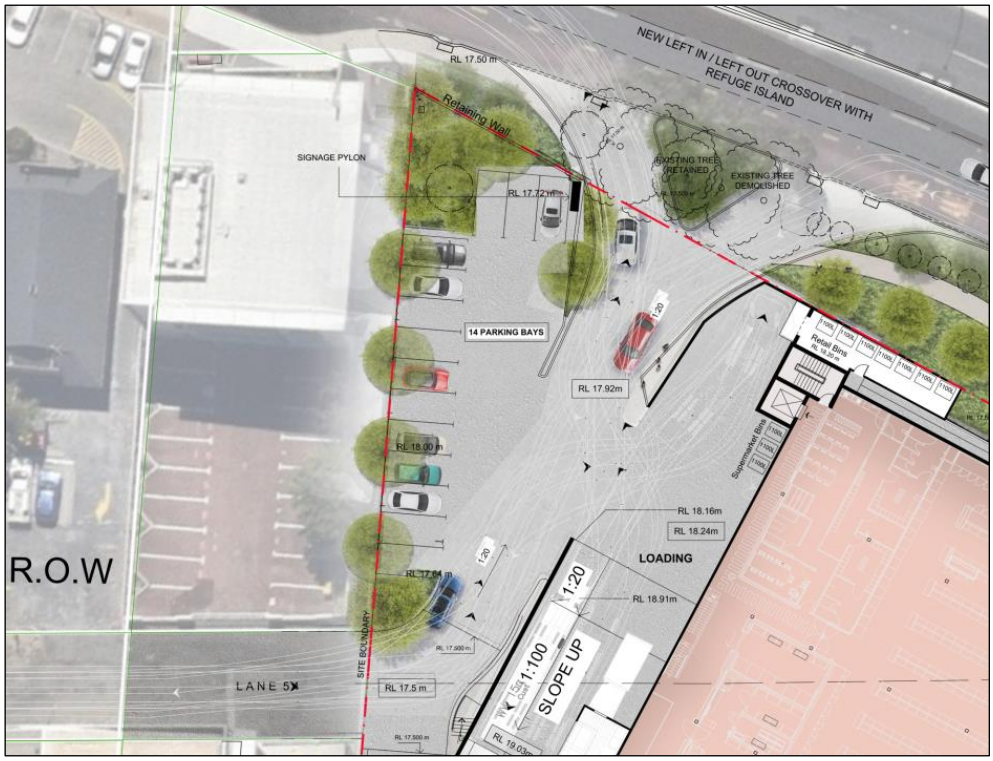
The private contractor's rear loader waste collection vehicle will enter the Proposal in forward gear via Shepperton Road and service bins directly from the Bin Storage Area utilising the dedicated Loading Area, refer Diagram 2. Private contractor's staff will ferry bins to and from the rear loader waste 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 Proposal in forward gear via Lane 54.

Servicing of bins onsite will reduce the noise generated in the area during collection. In addition, it will remove the need for bins on the street, maintaining the amenity of the area and removing the requirement for a lay down area to temporarily store bins on the verge before the waste collection vehicle arrives.

The ability for the private contractors rear loader waste collection vehicle to access the Proposal in a safe manner will be assessed by qualified traffic engineers and be included within their traffic impact statement.

Diagram 2: Loading Area



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 placement of cabinets/containers for collection and 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;
- Clothing;
- Batteries and E-wastes;
- White goods/appliances;
- Used Cooking Oil;
- Cleaning chemicals; and
- Commercial Light globes.

These materials will be removed from the Proposal as they are generated and will be the responsibility of the individual tenants. Removal of bulk waste will be monitored by the building management/caretaker, who will assist tenants with the removal of these wastes, as required.

5 Waste Management

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

- Monitoring and maintenance of bins and the Bin Storage Area;
- Cleaning of bins and Bin Storage Areas 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:

- Five 1,100L refuse bins, collected three times each week; and
- Two 1,100L recycling bins, collected three times each week.

A private contractor will service the Proposal onsite, directly from the Bin Storage Area utilising the dedicated Loading Area. The private contractor's waste collection vehicle will enter the Proposal in forward gear via Shepperton Road and exit in forward gear via Lane 54.

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

Figures

Figure 1: Locality Plan

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LEGEND

Site Boundary

Cadastre

TOWN OF VICTORIA PARK
Received: 13/08/2024

LOCALITY

LOCALITY

1022 Albany Highway
East Victoria Park WA 6101
Woolworths Group

N
0 10 20 30 metres

Coordinate System: GDA 1994 MGA Zone 50
Projection: Transverse Mercator, Datum: GDA 1994
Scale @ A3: 1:800

Prepared:	F Walker	Date:	17/07/2020
Reviewed:	D Patel	Revision:	A
Project:	TW20080		

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Figure 01

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Assets | Engineering | Environment | Noise | Spatial | Waste

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