

WASTE MANAGEMENT PLAN

41 Monbulk Road, Mount Evelyn

Reference: SH361483

Date: 22/02/2022

Assessment of:

Service station incorporating a car wash

Responsible authority:

Yarra Ranges Shire Council



Project:	41 Monbulk Road, Mount Evelyn		SH ref: SH361483	
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Table 1: Document control

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GLOSSARY

Operator: the building manager or owner's corporation (including staff or contractors) who will manage site operations

Users: Commercial tenant who will utilise the waste system

EXECUTIVE SUMMARY

Waste Management Plan for a proposed development at 41 Monbulk Road, Mount Evelyn, VIC 3796.

The proposed development is within the jurisdiction of the Yarra Ranges Shire Council, and for a development of this size, the council requires a WMP or equivalent to be produced as part of its planning approval process.

Recycling and Garbage waste in this development is to be stored in the designated refuse area within the development. Private collector will collect the bins within the property. The collector will make sure that no hindrance is created for the people in the vicinity while collection is taking place.

For this development, it is anticipated that 2 x 1100L bins for garbage and 1 x 1100L + 1 x 360L for recycling is required. In addition to the above 1 x 1100L FOGO bin will be provided. Also, 1 x 120L Glass bin will be provided to cater for Victoria's future 4 bin requirement. Location of the bins is shown in the drawings and in the report. Waste will be collected by private collection service (2 times a week). Operator/manager to bring the waste to the truck for the collection to take place. Building Manager/operator will make sure that appropriate signage will be provided within the development. Also, operator will make sure that waste collection process takes place smoothly without causing any trouble to the nearby people. Hard waste to be collected via call by private collector. Operator will bring the bins to the truck during the collection and will put it back to the designated place as soon as collection has taken place. Waste could be collected by medium rigid vehicle or the one with similar properties. Please refer to swept path analysis for waste collection vehicle details.

1. PROJECT OVERVIEW

The proposed Service station is located at 41 Monbulk Road, Mount Evelyn, VIC 3796.

The development is placed adjacent to the Monbulk Road. This development is close to many eateries, cafés and shops.

Description	Area
Control Building	259m ²
Site Area	4324.5m ²
Total Built Up Area	259m ²

The development is in NCC Climate Zone 7. The following aerial photo shows the location of the site.



Figure 1: Aerial view of subject site

2.2 Documentation and assessment

This report is based on the following:

- Project discussions and email correspondences with Peregrine Corporation
- The architectural drawings provided by Peregrine Corporation

Drawing	Description	Date
TP Drawings	JN1399.1sk01 Site Plan PRELIMINARY 20220208	8/02/2022

2. WASTE GENERATION

The following waste generation rates have been used (provided by the City of Melbourne).

Commercial	Garbage	Recycling	Assumed Days/week
Convenience Store	300L/100m ²	150L/100m ²	7

Table 2: Relevant Waste Generation Rates

Based on the above waste generation rates, the following total waste volume can be anticipated:

Commercial	Garbage [L]	Recycling [L]	FOGO	Assumed Days/week
Convenience Store	3535	2720	1904	7
Storage Required (twice a week collection)	1767.5	1360	952	7

Table 3: Waste Volume

Sustainability Victoria conducted the Victorian Statewide Garbage Bin Audit – Food Waste 2016, to analyse the number of items in a garbage bin, including food waste. The audit found that approximately 35% of the garbage bin is made up of food waste. Therefore, this has been factored into the above calculation rates.

3. WASTE SYSTEM SUMMARY

The waste management system is summarised as follows:

Operator Responsibilities:

- The operator should make sure that the vicinity has an internal general and recycling waste bin apart from the bins placed in refuse area.
- Once the internal bins are full, then operator should dump the waste from internal bins into the bins placed in the refuse area.
- The operator should ensure that bins are not overloaded.
- The operator will make sure that waste is dumped in the refuse area, so that it can be collected by the private collector.
- Collection days shall be staged appropriately in line with the collection frequency detailed below.
- Waste volumes here are an estimate only; operator/users should review actual waste volumes and make adjustments as required.
- Operator will bring the bins to the collection area and will put it back in the dedicated area after the collection has taken place.

Ventilation, Washing, and Vermin-Prevention

- Operator will regularly clean the waste areas/equipment and keep the bin lids closed.
- Operator will make sure that bins are placed at designated space of the development and are not causing any hindrances to the people near the development
- Operator to coordinate with private collector before collection takes place and will make sure that collection takes place smoothly.
- Facilities will be provided for the cleaning of waste bins, with waste water being directed to the sewer.

Waste-streams summarised as follows:

Garbage: All garbage to be stored in bins provided for collection.

Recycling: All recyclables to be commingled into single collection bins for paper, cardboard, PET, glass, aluminium, steel, and HDPE containers.

Garden Waste: Garden waste to be removed by landscape contractor as required by users. Landscaping contractor to be selected and engaged by users as necessary.

Hard Waste: *Please refer to Yarra Ranges Shire Guidelines for hard waste collection (refer to link below) <https://www.yarraranges.vic.gov.au/Environment/Waste/Hard-rubbish?BestBetMatch=hardwaste|9a2195ed-d3ca-463c-a2be-6143a6f8a084|4b89be37-1488-4d2a-95f7-33ed31d02f72|en-AU>*

Compost: Composting at the development level is considered impractical for this site, as there would be minimal onsite demand for compost.

Other Waste Streams: The disposal of hard/electronic/liquid waste, and home detox (paint/chemicals), etc. Shall be organised with the assistance of the operator and the appropriate contractor.

E-Waste:

E-waste can be placed out in Hard Rubbish collections for appropriate disposal. Collect small items can be collected together in a box clearly marked 'E-waste'. Refer to the following link for more details:
<https://www.yarraranges.vic.gov.au/Environment/Waste/Electronic-Waste-E-waste?BestBetMatch=e-waste|9a2195ed-d3ca-463c-a2be-6143a6f8a084|4b89be37-1488-4d2a-95f7-33ed31d02f72|en-AU>

Collection Arrangements and Access to Waste Facilities:

- Bins are to be placed in the refuse area for collection
- Operator should make sure that the vehicle entering the development for waste collection doesn't create any problem for other people in the development that came in for fuel refilling
- Waste collection days and times to be staged appropriately.

Waste Vehicle:

Medium Rigid Vehicle or similar could be used for waste collection. Dimensions are shown below

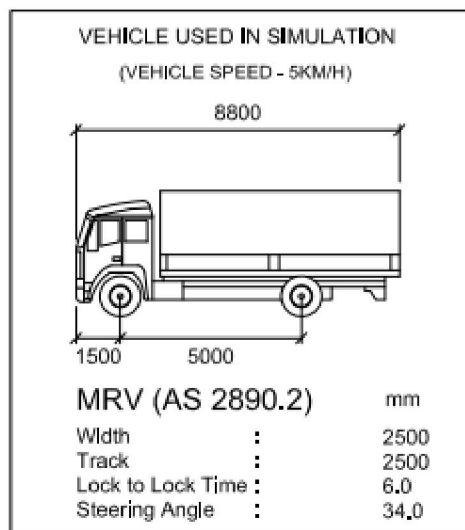


Figure 2: Dimensions of the Truck

Collection Timings:

Operator will make sure that the collection times are in accordance with EPA guidelines where he/she will make sure that collection doesn't take place during the peak hours.

4. BIN SCHEDULE AND COLLECTION FREQUENCY

Given the location of the bin stores within the site, council services will not be suitable for this development. A private contractor will be engaged to collect waste and recycling from the bin store via on site collection.

Based on current generation rates for the service station (convenience store waste rates used), the anticipated garbage would be sufficiently accommodated by 2 x 1100L waste bin collected 2 times per week. Also, 1 x 1100L bin will be provided for the FOGO waste. For recycling waste, 1 x 1100L + 1 x 360L bins have been proposed. Also, 1 x 120L Glass bin will be provided to cater for Victoria's future 4 bin requirement which will be collected 2 times a week through the private collector.

The following tables outline the bin schedules including details of collection, required volume for the effective management of waste removal, and colour coding. Subject to preference and site constraints, bin sizes and quantities may be changed.

	Collection by	Garbage collection frequency per week	Recycling collection frequency per week
Commercial	Private Contractor	2	2

Table 4: Collection Frequency [Collections/week]

Commercial	Storage volume required [L]	Bin Qty	Capacity [L/bin]	Total Capacity [L]	Area needed (m ²)
Garbage	1767.5	2	2 x 1100L	2200	3.64
Recycling	1360	2	1 x 1100L+1 x 360L	1460	2.42
FOGO	952	1	1 x 1100	1100	1.82
Glass		1	1 x 120	120	0.30
Hard waste	Will be collected by Private collector on call				
Total bin area needed (excluding circulation):					8.18

Table 5: Bin Quantity & Volume - Communal Bin Storage

Descriptions of bin types are included in Appendix A of this report.

5. BIN STORAGE & SIGNAGE

The town planning drawings provided show bin storage location and the access paths (please refer to the appendix B for more detail). However once operational, should the proposed waste system not suffice for this project the operator should make adjustments where necessary. In addition, signage will be installed in the bin area to encourage correct recycling and reduction of contamination. Please refer to Appendix B and C for access path and swept path analysis.

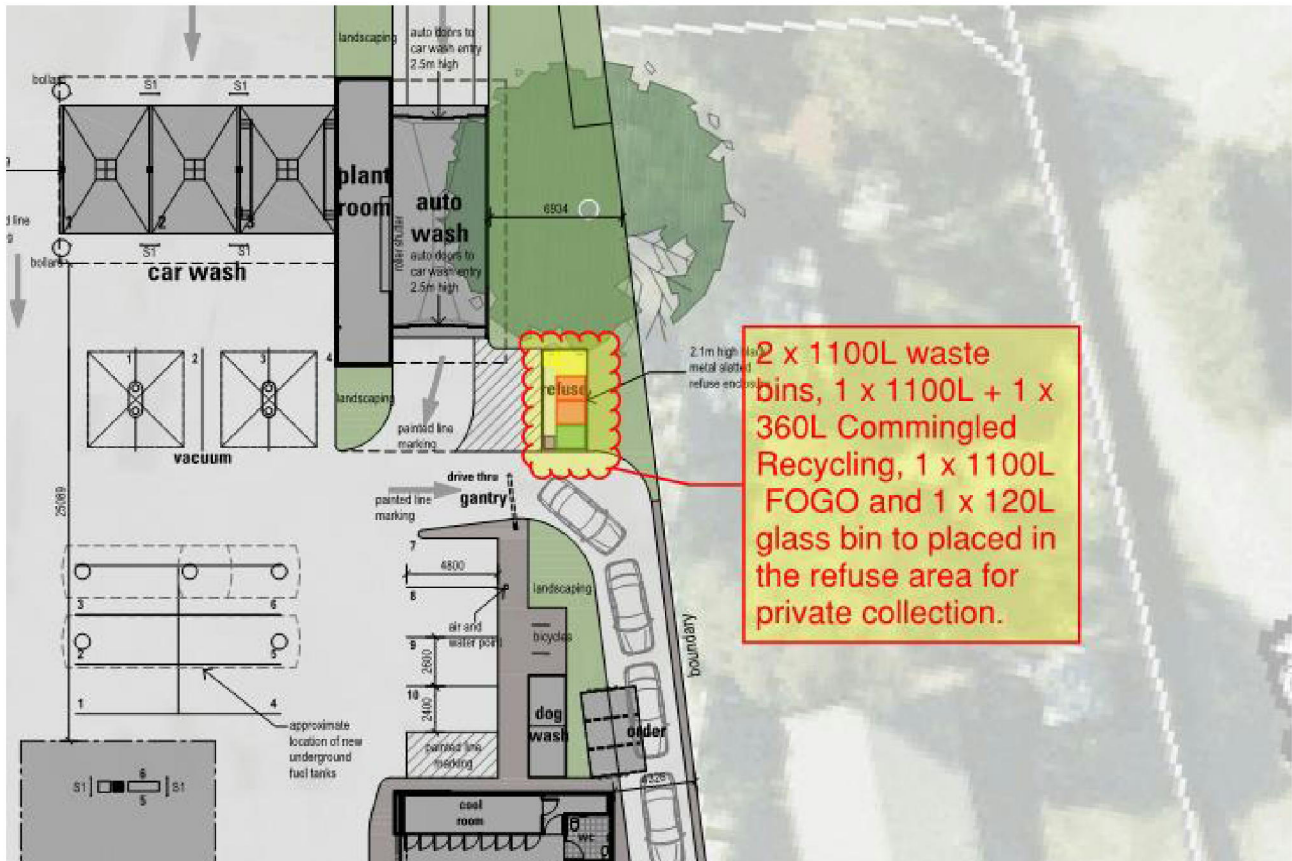


Figure 4: Bin Collectio

6. LIMITATIONS



Figure 3: Bin Signage

The purpose of this report is to document a Waste Management Plan, as part of a Town Planning

Application. It has the following limitations:

- It relates only to operational waste (excludes demolition/construction stages)
- It is based on drawings provided
- Figures presented are estimates only; the actual amount of waste may vary depending on occupancy rates, waste generation intensity and the operator's approach to waste management.
- This report is not to be used for the purposes of estimating operational costs or to document operational or safety procedures.
- Collection frequency is subject to change if nature of the building changes.

APPENDIX A – BIN TYPES

Provider	Bin	Lid	Body
Private Contractor*	Garbage	Red/Burgundy	Dark Green/Black
Private Contractor*	Commingled Recycling	Yellow	Dark Green/Black
Private Contractor*	Paper/Cardboard	Blue	Dark Green/Black
Private Contractor*	FOGO	Green	Dark Green/Black
Private Contractor*	Glass	Purple	Dark Green/Black

* Based on ANZECC Colour Coding suggestion for private bins. Private contractor bins must be labelled & may use alternative colours.

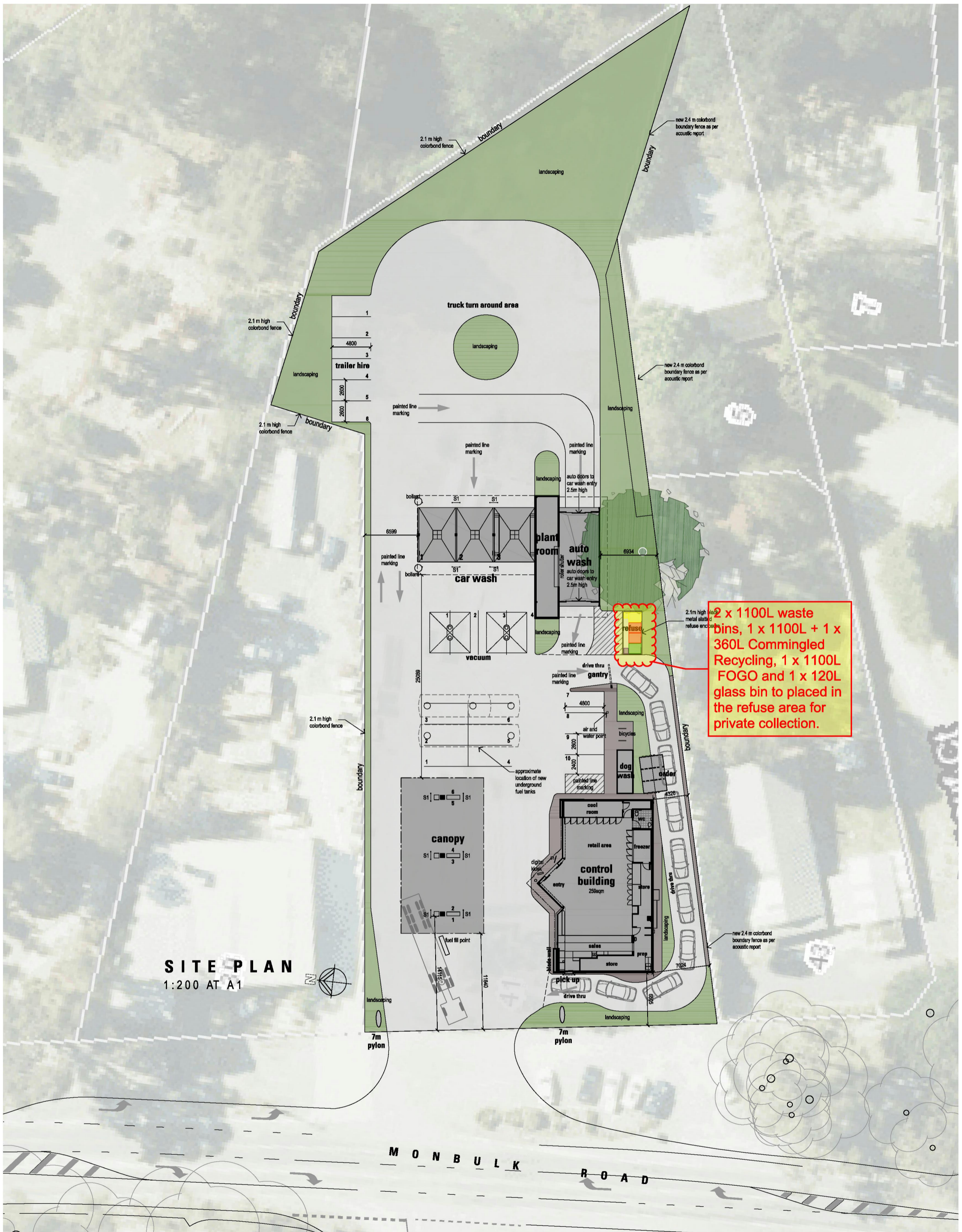
Table 5: Bin Colours

Material	Capacity [L]	Height [m]	Width [m]	Depth [m]	Empty Weight [kg]	Average* Gross Weight [kg]
HDPE	120	1.0	0.5	0.6	8	
HDPE	240	1.1	0.6	0.8	15	45
HDPE	360	1.1	0.7	0.8		
HDPE	660	1.2	1.4	0.7	50	
HDPE	1100	1.5	1.4	1.3	60	
HDPE	3000	1.4	2.2	1.6		
HDPE	4500	1.8	2	1.6	.	

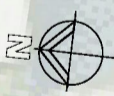
* Average Gross Weight is based on domestic studies which vary subject to location and type of waste. Weight will be greater for compacted/wet waste.

Table 6: Bin Dimensions (guide only)

APPENDIX B – BIN LOCATION AND ACCESS PATHS



SITE PLAN
1:200 AT A1



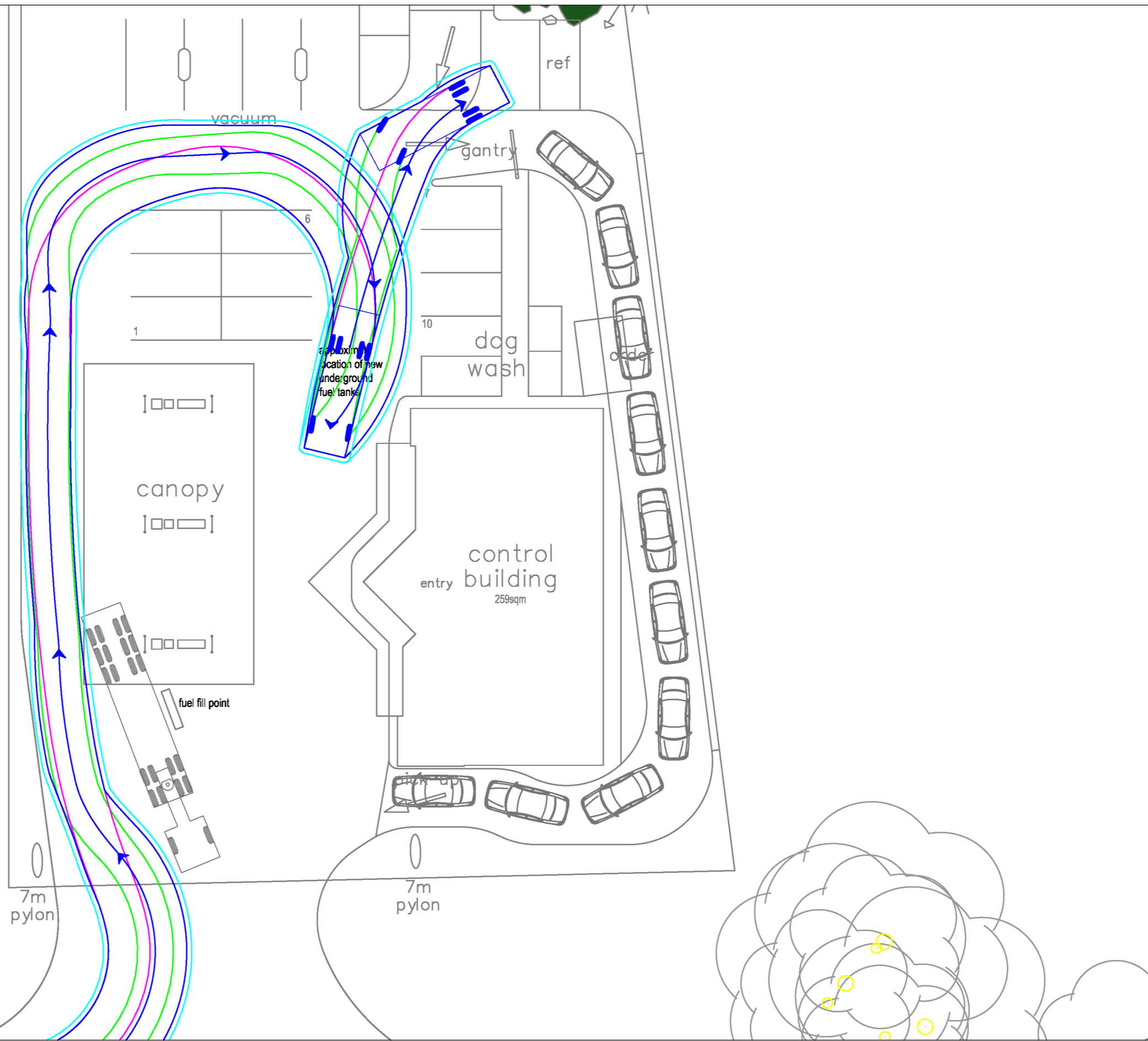
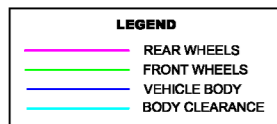
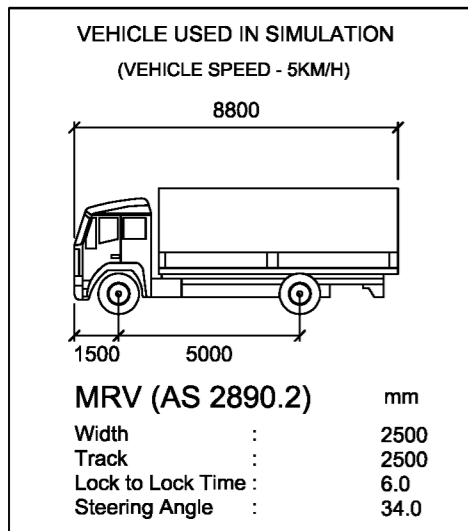
OTR MOUNT EVELYN

41 MONBULK ROAD, MOUNT EVELYN VIC 3796



APPENDIX C – SWEEP PATH ANALYSIS

WASTE COLLECTION



S I T E
P L A N
1:200 AT A1

REV	DATE	NOTES
A	14/02/2022	

41 MONBULK ROAD, MOUNT EVELYN
PROPOSED SERVICE STATION DEVELOPMENT

GENERAL NOTES:

FILE NAME: 27274-03
SHEET NO.: 03





SCALE: 1:250 (A3)

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APPENDIX D – WASTE CALCULATIONS

Commercial food premises	
Type	Area in m ²
Restaurants	0 m ²
Supermarkets	0 m ²
Convenience	259 m ²
Cafe	0 m ²
Takeaway	0 m ²
Butcher	0 m ²
Delicatessen	0 m ²
Fish shop	0 m ²
Greengrocer	0 m ²

Weekly generation	
 Garbage	5439L
 Recycling	2720L

Dwellings			
Organics	Non-Organics	Garbage	Recycling
0	0	0	0

Commercial food premises	
Garbage	5439L
Recycling	2720L

Commercial non-food premises	
Garbage	0
Recycling	0

Other accommodation	
Garbage	0
Recycling	0

Total	
Garbage	5439L
Recycling	2720L