



Phone: 1300 160 030  
info@brpconsulting.com.au  
www.brpconsulting.com.au  
ABN 95 655 220 090

## **WASTE MANAGEMENT PLAN**

**16 Chapman Street, Werrington NSW 2747**

*Proposed Mixed-Use Development*

Prepared for:	Bathla Group
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Revision:	1.0
Penrith City Council Application #:	TBA

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## Introduction

BRP Consulting was commissioned by the Bathla Group to prepare a Waste Management Plan (WMP) for approval of a proposed mixed-use development at 16 Chapman Street, Werrington NSW.

The proposed mixed-use development consists of;

DEVELOPMENT DETAILS	
Retail Shops 4005	<b>Ground Level:</b> S1 (98.9m <sup>2</sup> ), S2 (123.5m <sup>2</sup> ), S3 (91.4m <sup>2</sup> ), S4 (84.0m <sup>2</sup> ), S5 (57.5m <sup>2</sup> ). <b>First Level:</b> S1 (109.7m <sup>2</sup> ), S2 (142.4m <sup>2</sup> ), S3 (102.3m <sup>2</sup> ), S4 (94.5m <sup>2</sup> ), S5 (73.7m <sup>2</sup> ).
Recreation Centre 4006	<b>Ground Level:</b> Canteen (193.2m <sup>2</sup> ), Kitchen (30.2m <sup>2</sup> ). <b>First Level:</b> Change: (70.5m <sup>2</sup> ), Gymnasium (180.2m <sup>2</sup> ), Dance Studio (126.0m <sup>2</sup> ).
Warehouse/Showroom 4002	W (465.2m <sup>2</sup> ) (Showroom 187.2m <sup>2</sup> & Office 186.9m <sup>2</sup> ).
Warehouse/Showroom 4003	W (461.0m <sup>2</sup> ) (Showroom 173.9m <sup>2</sup> & Office 174.4m <sup>2</sup> ).
Warehouse/Showroom 4004	W (473.0m <sup>2</sup> ) (Showroom 173.6m <sup>2</sup> & Office 180.5m <sup>2</sup> ).
Warehouse 4007	W1 (441.8m <sup>2</sup> ) (Office 42.4m <sup>2</sup> & 119.1m <sup>2</sup> ), W2 (438.3m <sup>2</sup> ) (Office 38.9m <sup>2</sup> & 122.0m <sup>2</sup> ).
Warehouses 4101	W1 (477.11m <sup>2</sup> ) (Office 42.4m <sup>2</sup> & 119.6m <sup>2</sup> ), W2 (448.8m <sup>2</sup> ) (Office 42.2m <sup>2</sup> & 119.6m <sup>2</sup> ).
Warehouses 4102	W1 (517.0m <sup>2</sup> ) (Office 42.4m <sup>2</sup> & 119.2m <sup>2</sup> ), W2 (532.2m <sup>2</sup> ) (Office 42.4m <sup>2</sup> & 121.5m <sup>2</sup> ).
Warehouses 4103	W1 (191.7m <sup>2</sup> ) (Office 36.2m <sup>2</sup> & 94.3m <sup>2</sup> ), W2 (191.1m <sup>2</sup> ) (Office 36.2m <sup>2</sup> & 92.4m <sup>2</sup> ). W3 (197.8m <sup>2</sup> ) (Office 36.2m <sup>2</sup> & 90.3m <sup>2</sup> ), W4 (174.4m <sup>2</sup> ) (Office 34.4m <sup>2</sup> & 90.8m <sup>2</sup> ).
Warehouses 4104	W1 (189.4m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 94.3m <sup>2</sup> ), W2 (191.1m <sup>2</sup> ) (Office 36.2m <sup>2</sup> & 92.4m <sup>2</sup> ). W3 (201.2m <sup>2</sup> ) (Office 36.2m <sup>2</sup> & 90.3m <sup>2</sup> ), W4 (190.4m <sup>2</sup> ) (Office 36.4m <sup>2</sup> & 96.6m <sup>2</sup> ).
Warehouses 4105	W1 (190.7m <sup>2</sup> ) (Office 35.9m <sup>2</sup> & 96.8m <sup>2</sup> ), W2 (190.8m <sup>2</sup> ) (Office 36.0m <sup>2</sup> & 92.4m <sup>2</sup> ). W3 (197.5m <sup>2</sup> ) (Office 36.0m <sup>2</sup> & 90.3m <sup>2</sup> ), W4 (224.3m <sup>2</sup> ) (Office 37.4m <sup>2</sup> & 99.3m <sup>2</sup> ).
Warehouses 4106	W1 (194.9m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 80.0m <sup>2</sup> ), W2 (194.9m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 80.0m <sup>2</sup> ). W3 (194.9m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 79.8m <sup>2</sup> ), W4 (194.9m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 79.7m <sup>2</sup> ).
Warehouses 4107	W1 (216.0m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 95.8m <sup>2</sup> ), W2 (216.0m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 102.4m <sup>2</sup> ). W3 (216.0m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 102.4m <sup>2</sup> ), W4 (216.0m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 95.8m <sup>2</sup> ).
Warehouses 4108	W1 (235.6m <sup>2</sup> ) (Office 36.8m <sup>2</sup> & 104.3m <sup>2</sup> ), W2 (235.6m <sup>2</sup> ) (Office 36.8m <sup>2</sup> & 102.4m <sup>2</sup> ). W3 (235.6m <sup>2</sup> ) (Office 36.8m <sup>2</sup> & 102.4m <sup>2</sup> ), W4 (235.9m <sup>2</sup> ) (Office 36.8m <sup>2</sup> & 104.3m <sup>2</sup> ).
Warehouses 4109	W1 (208.2m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 110.8m <sup>2</sup> ), W2 (208.2m <sup>2</sup> ) (Office 37.5m <sup>2</sup> & 109.1m <sup>2</sup> ). W3 (208.2m <sup>2</sup> ) (Office 37.1m <sup>2</sup> & 109.2m <sup>2</sup> ), W4 (251.7m <sup>2</sup> ) (Office 37.2m <sup>2</sup> & 150.6m <sup>2</sup> ).
Warehouses 4110	W1 (210.6m <sup>2</sup> ) (Office 41.9m <sup>2</sup> & 118.7m <sup>2</sup> ), W2 (214.7m <sup>2</sup> ) (Office 41.9m <sup>2</sup> & 109.1m <sup>2</sup> ). W3 (218.9m <sup>2</sup> ) (Office 41.9m <sup>2</sup> & 109.2m <sup>2</sup> ), W4 (275.4m <sup>2</sup> ) (Office 57.1m <sup>2</sup> & 150.6m <sup>2</sup> ).

In the course of preparing this WMP, the subject site and its environs have been inspected, plans of the development examined, and all relevant council requirements and documentation collected and analysed.

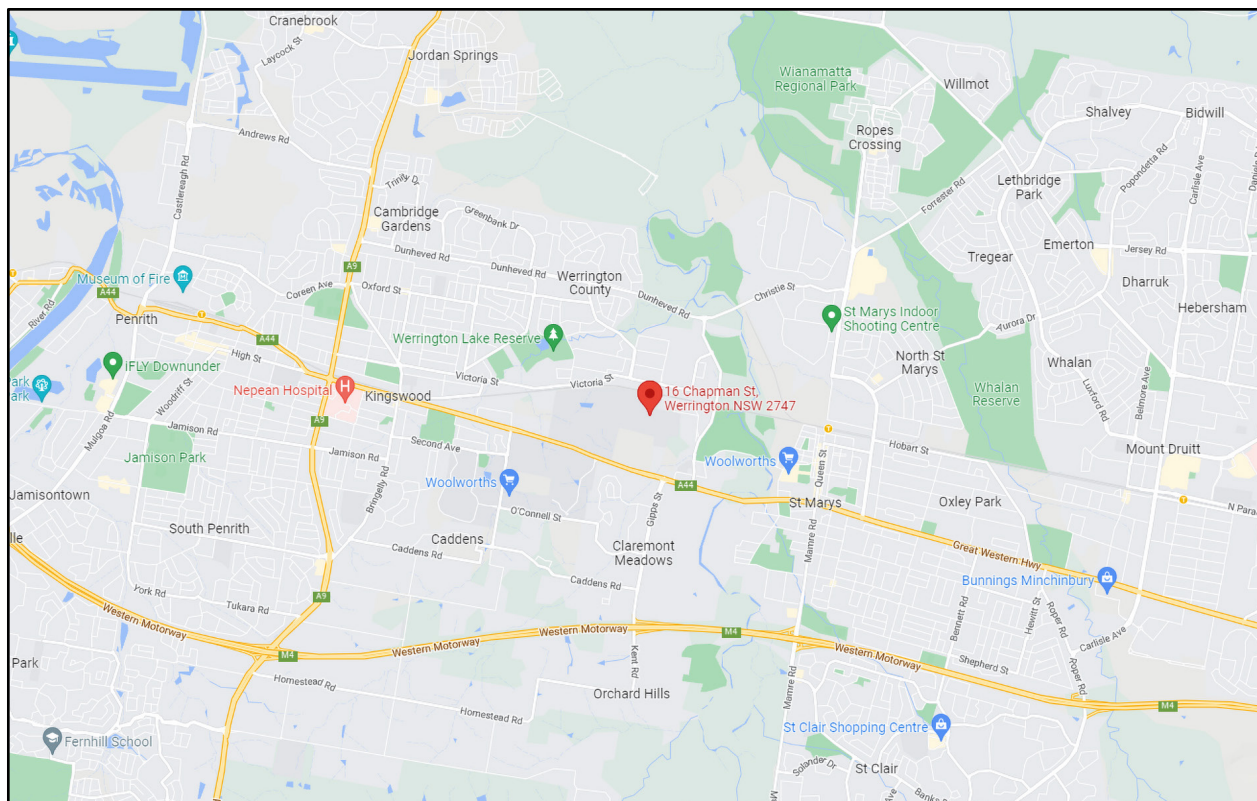
This WMP has been prepared based on the following information:

- Architectural Plans provided by the Bathla Group.
- Penrith Council Waste Guidelines & NSW Commercial and Industrial Waste Management Plan Guidelines.

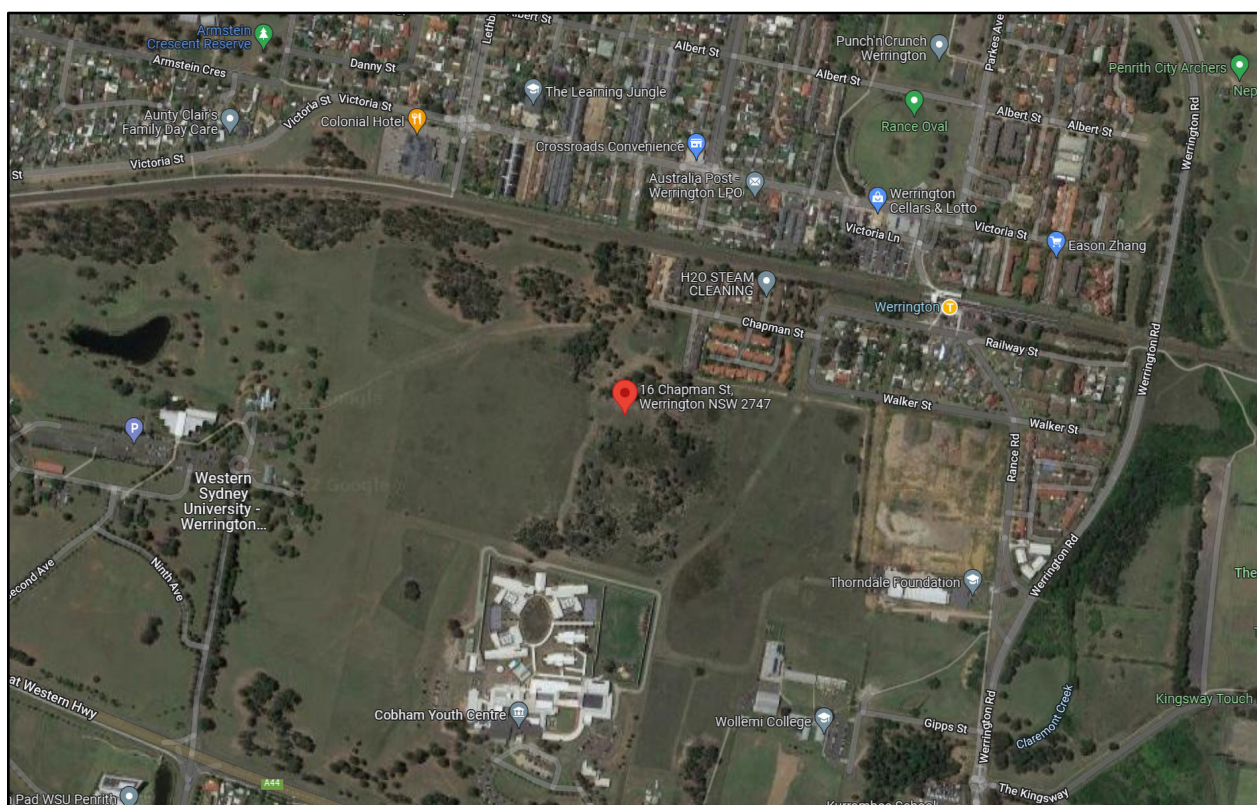
## **Background and Existing Conditions**

The subject site is located at 16 Chapman Street, Werrington NSW, on the South side of Chapman Street, and the nearby land uses are commercial, with residential to the north.

**Figure 1** provides an overview of the area and its surrounding land uses whilst **Figure 2** provides an aerial view of the immediate area surround the subject site.



**Figure 1: Location of the Subject Site**



**Figure 2: Aerial View of the Subject Site**



## Proposed Development

The proposed commercial development consists of Retail Shops, Recreation Centre, Warehouse & Showrooms. Access to the proposed entrance of the complex will be provided via a paved walkway and driveways via the newly proposed Roads (Courts). The Mobile Garbage bins (MGB's) will be collected from the designated collection areas (**Refer Appendix A**).

## Anticipated Waste Generation, Storage and Collection

Collection will be provided by private waste contracted services.

### Waste Generation

As per the Penrith Council Waste Guidelines & NSW Commercial and Industrial Waste Management Plan Guidelines:

The waste entitlement for: (a) Retail (under 100m<sup>2</sup>) is 50L/100m<sup>2</sup> of floor area per day general waste, 25L/100m<sup>2</sup> of floor area per day recycling waste. (b) Retail (over under 100m<sup>2</sup>) is 50L/100m<sup>2</sup> of floor area per day general waste, 50L/100m<sup>2</sup> of floor area per day recycling waste. (c) Recreation Centre is 10L/100m<sup>2</sup> of floor area per day general waste, 10L/100m<sup>2</sup> of floor area per day recycling waste. (d) Canteen is 150L/100m<sup>2</sup> of floor area per day general waste, 150L/100m<sup>2</sup> of floor area per day recycling waste. (d) Warehouse/Showroom is 10L/100m<sup>2</sup> of floor area per day general waste, 10L/100m<sup>2</sup> of floor area per day recycling waste.

The following table illustrates the typical garbage and recycling generation rates.

**Table 1: Typical Garbage and Recycling Generation Rates for Mixed-Use Developments.**

Type of Premises	Land Waste Collection	Comingled Recycling Generation
Retail (under 100m <sup>2</sup> )	50L/100m <sup>2</sup> floor area/day	25L/100m <sup>2</sup> floor area/day
Retail (over under 100m <sup>2</sup> )	50L/100m <sup>2</sup> floor area/day	50L/100m <sup>2</sup> floor area/day
Recreation Centre	10L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day
Canteen	150L/100m <sup>2</sup> floor area/day	150L/100m <sup>2</sup> floor area/day
Warehouse/Showroom	10L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day

## Waste within Overall Development

Using the garbage and recycling generation rates above, the following can be calculated;

### Retail Shops (Under 100m<sup>2</sup>) (500m<sup>2</sup>)

- 50L/100m<sup>2</sup> of floor area per day general waste = 1,750L per week (uncompacted)
- 25L/100m<sup>2</sup> of floor area per day recycling waste = 875L per week (uncompacted)

### Retail Shops (Over 100m<sup>2</sup>) (477.9m<sup>2</sup>)

- 50L/100m<sup>2</sup> of floor area per day general waste = 1,672.65L per week (uncompacted)
- 50L/100m<sup>2</sup> of floor area per day recycling waste = 1,672.65L per week (uncompacted)

Total Waste: General Waste = 3,422.65L & Recycling Waste = 2,547.65L

### Recreation Centre: Gym (180.2m<sup>2</sup>), Dance Studio (126.0m<sup>2</sup>), Change (70.5m<sup>2</sup>).

- 10L/100m<sup>2</sup> of floor area per day general waste = 263.69L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 263.69L per week (uncompacted)

#### Canteen (193.2m<sup>2</sup>), Kitchen (30.2m<sup>2</sup>)

- 150L/100m<sup>2</sup> of floor area per day general waste = 2,345.7L per week (uncompacted)
- 150L/100m<sup>2</sup> of floor area per day recycling waste = 2,345.7L per week (uncompacted)

Total Waste: General Waste = 2,609.39L & Recycling Waste = 2,609.39L

### Warehouse/Showroom 4002 W (465.2m<sup>2</sup>) (Showroom 187.2m<sup>2</sup> & Office 186.9m<sup>2</sup>).

- 10L/100m<sup>2</sup> of floor area per day general waste = 587.51L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 587.51L per week (uncompacted)

### Warehouse/Showroom 4003 (461.0m<sup>2</sup>) (Showroom 173.9m<sup>2</sup> & Office 174.4m<sup>2</sup>).

- 10L/100m<sup>2</sup> of floor area per day general waste = 566.51L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 566.51L per week (uncompacted)

### Warehouse/Showroom 4004 (473.0m<sup>2</sup>) (Showroom 173.6m<sup>2</sup> & Office 180.5m<sup>2</sup>).

- 10L/100m<sup>2</sup> of floor area per day general waste = 578.97L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 578.97L per week (uncompacted)

### Warehouse 4007 W1 (441.8m<sup>2</sup>) (Office 42.4m<sup>2</sup> & 119.1m<sup>2</sup>),

- 10L/100m<sup>2</sup> of floor area per day general waste = 422.31L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 400.68L per week (uncompacted)

#### W2 (438.3m<sup>2</sup>) (Office 38.9m<sup>2</sup> & 122.0m<sup>2</sup>).

- 10L/100m<sup>2</sup> of floor area per day general waste = 419.44L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 419.44L per week (uncompacted)

**Warehouse 4101 W1 (477.11m<sup>2</sup>) (Office 42.4m<sup>2</sup> & 119.6m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 447.37L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 447.37L per week (uncompacted)

**W2 (448.8m<sup>2</sup>) (Office 42.2m<sup>2</sup> & 119.6m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 427.42L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 427.42L per week (uncompacted)

**Warehouse 4102 W1 (517.0m<sup>2</sup>) (Office 42.4m<sup>2</sup> & 119.2m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 475.02L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 475.02L per week (uncompacted)

**W2 (532.2m<sup>2</sup>) (Office 42.4m<sup>2</sup> & 121.5m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 487.27L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 487.27L per week (uncompacted)

**Warehouse 4103 W1 (191.7m<sup>2</sup>) (Office 36.2m<sup>2</sup> & 94.3m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 225.54L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 225.54L per week (uncompacted)

**W2 (191.1m<sup>2</sup>) (Office 36.2m<sup>2</sup> & 92.4m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 223.79L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 223.79L per week (uncompacted)

**W3 (197.8m<sup>2</sup>) (Office 36.2m<sup>2</sup> & 90.3m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 227.01L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 227.01L per week (uncompacted)

**W4 (174.4m<sup>2</sup>) (Office 34.4m<sup>2</sup> & 90.8m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 209.72L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 209.72L per week (uncompacted)

**Warehouse 4104 W1 (189.4m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 94.3m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 224.84L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 224.84L per week (uncompacted)

**W2 (191.1m<sup>2</sup>) (Office 36.2m<sup>2</sup> & 92.4m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 223.79L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 223.79L per week (uncompacted)

**W3 (201.2m<sup>2</sup>) (Office 36.2m<sup>2</sup> & 90.3m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 230.09L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 230.09L per week (uncompacted)

**W4 (190.4m<sup>2</sup>) (Office 36.4m<sup>2</sup> & 96.6m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 226.38L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 226.38L per week (uncompacted)



**Warehouse 4105 W1 (190.7m<sup>2</sup>) (Office 35.9m<sup>2</sup> & 96.8m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 226.38L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 226.38L per week (uncompacted)

**W2 (190.8m<sup>2</sup>) (Office 36.0m<sup>2</sup> & 92.4m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 223.44L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 223.44L per week (uncompacted)

**W3 (197.5m<sup>2</sup>) (Office 36.0m<sup>2</sup> & 90.3m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 226.66L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 226.66L per week (uncompacted)

**W4 (224.3m<sup>2</sup>) (Office 37.4m<sup>2</sup> & 99.3m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 252.7L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 252.7L per week (uncompacted)

**Warehouse 4106 W1 (194.9m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 80.0m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 218.68L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 218.68L per week (uncompacted)

**W2 (194.9m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 80.0m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 218.68L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 218.68L per week (uncompacted)

**W3 (194.9m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 79.8m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 218.54L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 218.54L per week (uncompacted)

**W4 (194.9m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 79.7m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 218.5L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 218.5L per week (uncompacted)

**Warehouse 4107 W1 (216.0m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 95.8m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 244.51L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 244.51L per week (uncompacted)

**W2 (216.0m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 102.4m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 249.13L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 249.13L per week (uncompacted)

**W3 (216.0m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 102.4m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 249.13L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 249.13L per week (uncompacted)

**W4 (216.0m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 95.8m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 244.51L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 244.51L per week (uncompacted)

**Warehouse 4108 W1 (235.6m<sup>2</sup>) (Office 36.8m<sup>2</sup> & 104.3m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 263.69L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 263.69L per week (uncompacted)

**W2 (235.6m<sup>2</sup>) (Office 36.8m<sup>2</sup> & 102.4m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 262.36L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 262.36L per week (uncompacted)

**W3 (235.6m<sup>2</sup>) (Office 36.8m<sup>2</sup> & 102.4m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 262.36L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 262.36L per week (uncompacted)

**W4 (235.9m<sup>2</sup>) (Office 36.8m<sup>2</sup> & 104.3m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 263.69L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 263.69L per week (uncompacted)

**Warehouse 4109 W1 (208.2m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 110.8m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 249.55L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 249.55L per week (uncompacted)

**W2 (208.2m<sup>2</sup>) (Office 37.5m<sup>2</sup> & 109.1m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 248.36L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 248.36L per week (uncompacted)

**W3 (208.2m<sup>2</sup>) (Office 37.1m<sup>2</sup> & 109.2m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 248.38L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 248.38L per week (uncompacted)

**W4 (251.7m<sup>2</sup>) (Office 37.2m<sup>2</sup> & 150.6m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 307.65L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 307.65L per week (uncompacted)

**Warehouse 4110 W1 (210.6m<sup>2</sup>) (Office 41.9m<sup>2</sup> & 118.7m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 259.84L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 259.84L per week (uncompacted)

**W2 (214.7m<sup>2</sup>) (Office 41.9m<sup>2</sup> & 109.1m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 255.99L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 255.99L per week (uncompacted)

**W3 (218.9m<sup>2</sup>) (Office 41.9m<sup>2</sup> & 109.2m<sup>2</sup>),**

- 10L/100m<sup>2</sup> of floor area per day general waste = 259L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 259L per week (uncompacted)

**W4 (275.4m<sup>2</sup>) (Office 57.1m<sup>2</sup> & 150.6m<sup>2</sup>).**

- 10L/100m<sup>2</sup> of floor area per day general waste = 338.17L per week (uncompacted)
- 10L/100m<sup>2</sup> of floor area per day recycling waste = 338.17L per week (uncompacted)

## **Waste Storage Areas**

Based on the total waste generated by the development, the following Mobile Garbage Bins (MGBs) should be provided:

### **Retail Shops**

- 2 x 1,100L General Waste MGB's – collected & emptied twice weekly.
- 3 x 1,100L Recycling Waste MGB's – collected & emptied once weekly.

Total Waste: General Waste = 3,422.65L & Recycling Waste = 2,547.65L

### **Recreation Centre:**

- 3 x 1,100L General Waste MGB's – collected & emptied once weekly.
- 3 x 1,100L Recycling Waste MGB's – collected & emptied once weekly.

Total Waste: General Waste = 2,609.39L & Recycling Waste = 2,609.39L

### **Warehouse/Showroom 4002**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

### **Warehouse/Showroom 4003**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

### **Warehouse/Showroom 4004**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

### **Warehouse 4007 W1**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

#### **W2**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

### **Warehouse 4101 W1**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

#### **W2**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

**Warehouse 4102 W1**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

**W2**

- 1 x 660L General Waste MGB's – collected & emptied weekly.
- 1 x 660L Recycling Waste MGB's – collected & emptied weekly.

**Warehouse 4103 W1**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

**W2**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

**W3**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

**W4**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

**Warehouse 4104 W1**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

**W2**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

**W3**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

**W4**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

#### **Warehouse 4105 W1**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

##### **W2**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

##### **W3**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

##### **W4**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

#### **Warehouse 4106 W1**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

##### **W2**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

##### **W3**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

##### **W4**

- 1 x 240L General Waste MGB's – collected & emptied weekly.
- 1 x 240L Recycling Waste MGB's – collected & emptied weekly.

#### **Warehouse 4107 W1**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W2**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W3**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W4**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.



#### **Warehouse 4108 W1**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W2**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W3**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W4**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

#### **Warehouse 4109 W1**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W2**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W3**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W4**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

#### **Warehouse 4110 W1**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W2**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W3**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

##### **W4**

- 1 x 360L General Waste MGB's – collected & emptied weekly.
- 1 x 360L Recycling Waste MGB's – collected & emptied weekly.

The following Table illustrates the typical dimensions of the MGBs mentioned above.

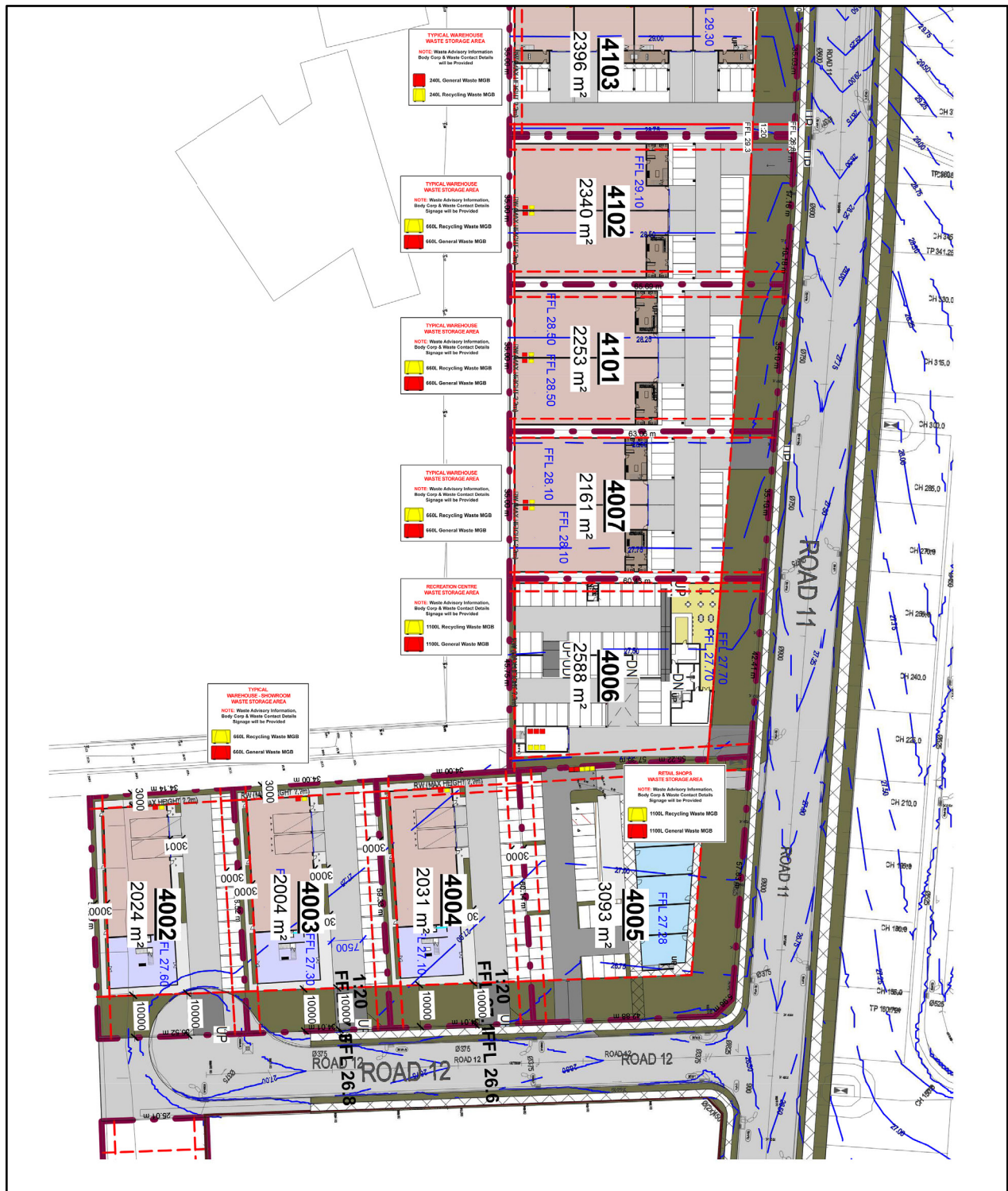
***Table 2: Typical Mobile Garbage Bin Measurements for New Developments in NSW.***

Size	Height (mm)	Width (mm)	Depth (mm)
240L	1,100	600	740
360L	1,100	600	885
660L	1,400	1,260	800
1,100L	1,330	1,240	1,090

Recycling	Garbage
<ul style="list-style-type: none"> <li>✓ All recycling.</li> <li>✓ Steel, tin, aluminium cans, empty aerosols.</li> <li>✓ Clear, brown, green glass bottles / jars (rinsed, no lids).</li> <li>✓ Plastic bottles, soft drink bottles, containers (rinsed, no lids).</li> <li>✓ Carboard boxes, milk, juice cartons.</li> <li>✓ Newspapers, magazines, office paper, junk mail, window envelopes.</li> <li>✓ Council provided compostable caddy liner.</li> <li>✗ Plastic bags, light bulbs, mirrors, drinking glasses, general and food, waste, ceramics, crockery, foam, ovenware, polystyrene, waxed cardboard boxes.</li> </ul>	<ul style="list-style-type: none"> <li>✓ General waste.</li> <li>✓ Plastic bags.</li> <li>✓ Packets, wrappers, cling wrap, bubble wrap.</li> <li>✓ Nappies, sanitary waste, (wrapped tightly and stored in a well-sealed bag).</li> <li>✓ Animal faeces, bedding, and kitty litter.</li> <li>✓ Foam, polystyrene, and polystyrene.</li> <li>✓ Light bulbs, mirrors, ceramics, cookware, and drinking glasses.</li> <li>✓ Contents of your vacuum cleaner, cotton wool, buds and cigarette ends.</li> <li>✗ Building materials, syringes, oil or paint, gas bottles, hazardous or chemical waste.</li> <li>✗ Medical waste: (speak to your doctor / pharmacy).</li> </ul>

**Figure 3: Waste Placement Guidelines for the MGB's**





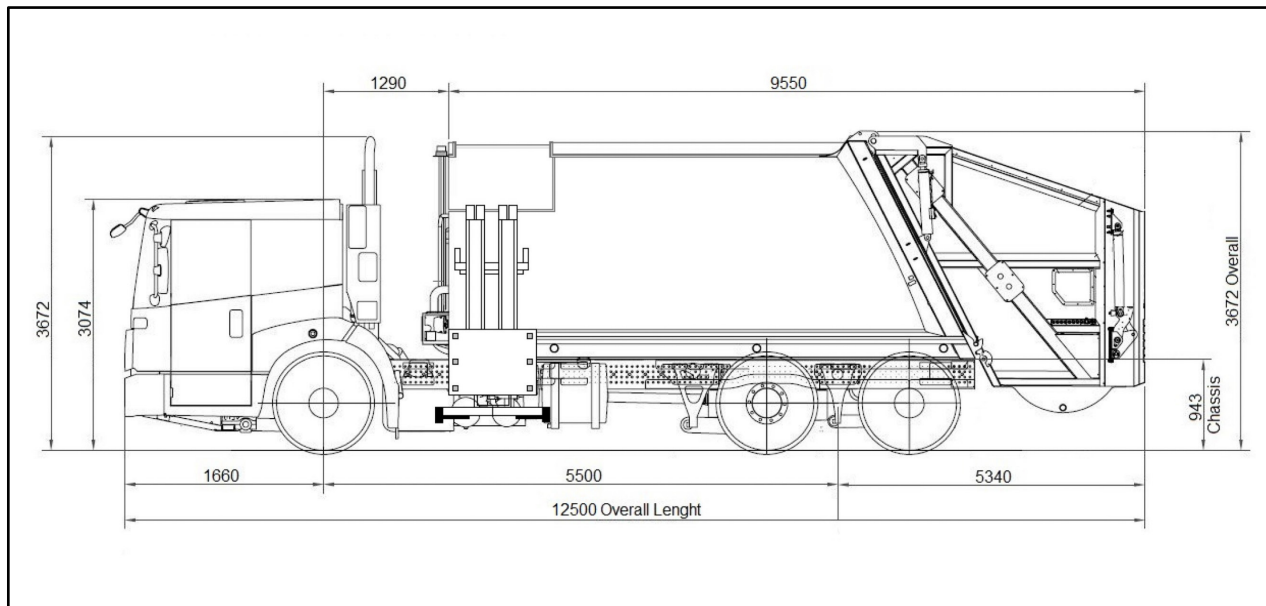
**Figure 5: Scaled Diagram of the Waste Storage Areas (2)**



## Waste Collection

The waste collection service for the proposed development will be provided by a private waste contractor

To be determined on the final plans and swept paths.



**Figure 6: Template of a Typical HRV Waste Collection Vehicle**

## Amenity

### Noise

The only noise generated from the waste management at the property will be that of the MGB's being wheeled to / from the waste truck. Any other noise related to the waste management will be kept to a minimum.

### Ventilation

The waste bin areas will be designed allowing for ample natural ventilation.

### Security/Communication Strategy

All MGB's will be secured within the waste storage areas.

All management & staff will receive detailed documentation detailing all necessary requirements for safe waste management and handling, including all relevant contact information.

### Cleaning Facilities

The private contractor will be responsible for keeping the MGB's clean.

**NOTE:** Outdoor waste enclosures should consist of: **(1)** Impervious coated/treated walls and ground surface, ensuring the ground is graded to the sewer (100 mm diameter) floor drain outlet within the enclosure. **(2)** Tap and hose (hose cock must be protected from the waste containers) for use of cleaning the MGBs and waste area. **(3)** The colourbond metal panels will also be fitted and wet sealed to the ground surface preventing any water leakage beyond the waste enclosure. **(4)** Ventilation gap spanning the full width of the enclosure between the colorbond roof and wet sealed colorbond fitted panel walls for natural ventilation with stormwater guttering and drain pipes connected to the existing sewer system. **(5)** Self closing lockable sliding gate (option to bolt the sliding gate open), or double doors/electric roller door allowing easy removal of the MGBs.

### Prevention of Vermin

Occupants will be advised to not overfill the bins so that the lids are closed at all times.

## **Miscellaneous**

### **Communal Composting Facility**

No consideration has been given to a communal composting facility. Residents wanting to compost some of their rubbish will be required to do so individually.

### **Green/Food Waste**

Food waste should be placed in the general waste MGB's. All other green waste will be handled by the gardening contractor.

### **Hard Waste**

If hard waste collection is required, the occupier should call the private contractor directly.

### **E-Waste**

Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors. E-Waste will be placed in impermeable surface containers and collected by a registered E-Waste Re-Processor as required.

