Traffix Group

Waste Management Plan

Proposed Residential Development

18 Mason Street, Warragul

Prepared for
Housing Choices Australia

May 2023

G32628R-02B(WMP)

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Document Control

Our Reference: G32628R-02B(WMP)

Issue No.	Type	Date	Prepared By	Approved By
A	Draft	19/04/2023	J. Mitropoulos	M. O'Shea
B	For Consultation	01/05/2023	J. Mitropoulos	M. O'Shea

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1. Introduction

Traffix Group has been engaged by Housing Choices Australia to prepare a Waste Management Plan (WMP) for the proposed residential development at 18 Mason Street, Warragul.

This Waste Management Plan is intended to act as a guideline for the proposed development and may be subject to ongoing updates, post-development.

2. Proposal

The proposal is for a residential development on the site as set out in the following table.

Table 1: Development Summary

Characteristics	Description	
Uses	**Size/No.**	**Notes**
Dwellings: One-bedroom Apt. Two-bedroom Apt. Three-bedroom Apt. **TOTAL**	 25 19 7 **51**	-
Community space	151m^2	For shared use by residents
Social housing office	58m^2	Ancillary to the building

A shared waste area is provided within the basement for the residential dwellings and associated community space and social housing office.

Vehicle access to the site is provided via a 6.2m wide accessway to the adjacent ROW along the site's northern boundary.

A copy of the development plans prepared by Freadman White Architects (Revision SD1, dated 21 April) are attached at Appendix A.

3. Waste Management Plan

3.1. Waste Generation

The proposed land uses have been assessed against the waste generation rates specified under the *Better Practice Guide for Waste Management and Recycling in Multi-unit Developments* by Sustainability Victoria. The following table sets out the expected waste generation for the proposed residential development.

The office waste rate has been applied to the community space and social housing office to give a conservative waste generation estimate.

Table 2: Waste Generation Rates

Waste Source	Garbage	Recycling
Residential		
One-bedroom dwellings	80L/dwelling per week	80L/dwelling per week
Two-bedroom dwellings	100L/dwelling per week	100L/dwelling per week
Three-bedroom dwellings	120L/dwelling per week	120L/dwelling per week
Ancillary Uses		
Community space	10L/100m² floor area/day	10L/100m² floor area/day
Social housing office	10L/100m² floor area/day	10L/100m² floor area/day

An estimate of the total waste generated by the proposed development is detailed in Table 3.

Table 3: Expected Waste Generation for the Proposed Use

Waste Source	Size/No.	Garbage	Recycling
Residential			
One-bedroom dwellings	25	2,000L per week	2,000L per week
Two-bedroom dwellings	19	1,900L per week	1,900L per week
Three-bedroom dwellings	7	840L per week	840L per week
Total	**51**	**4,740L per week**	**4,740L per week**

Waste Source	Size/No.	Garbage	Recycling
Ancillary Uses			
Community space	151m^2	76L per week	76L per week
Social housing office	58m^2	29L per week	29L per week
TOTAL WASTE GENERATED		**105L per week**	**105L per week**

3.1.1. Alternative Waste Streams

In accordance with the Victorian Government's *Circular Economy Policy*: *Recycling Victoria*, food organics green organics (FOGO) and glass waste have been considered separately to help reduce landfill at the source or help separate commingled recycling.

Residential Component

Organic waste is included within the 'garbage' waste rates. Based on the *Victorian Statewide Garbage Bin Audit – Food Waste 2016*, approximately 35% of garbage waste from residential uses are organics.

Glass waste is included within the 'recycling' waste rates. Approximately 30% of recycling waste from the residential uses is considered as glass.

Based on the above, the residential component will produce:

- Garbage – 3,081L/week,
- Commingled Recycling – 3,318L/week,
- FOGO – 1,659L/week, and
- Glass – 1,422L/week.

Ancillary Uses

The ancillary uses will produce:

- Garbage – 105L/week, and
- Commingled Recycling – 105L/week,

3.2. Waste Equipment

Based on the determined waste generation, Table 4 provides a summary of the nominated waste storage area provisions and the frequency of collection.

Table 4: Waste Bins and Collection Frequencies

Waste Source	Waste Stream	Waste Volume (L/week)	Bin Capacity	No. of Bins Required	Collection Frequency (per week)
Residential Dwellings	Garbage	3,081L	1,100L	3	1
	Recycling	3,318L	1,100L	4	1
	FOGO	1,659L	240L	8	1
	Glass	1,422L	240L	7	1
Ancillary Uses	Garbage	105L	240L	1	1
	Recycling	105L	240L	1	1

Overall, the proposed mixed use development requires the following bins:

- Residential dwellings – 15 x 240L bins and 7 x 1,100L bins, and
- Ancillary Uses – 2 x 240L bins.

Each waste stream (garbage, recycling, FOGO and glass) is to be collected once per week resulting in a total of 4 collections per week. The number of proposed collections is acceptable based on the size of the development and the context of other developments within the nearby road network and activity centre.

Further details regarding the waste equipment required for the development are detailed in Table 5.

Table 5: Bin Details and Colours

Waste Stream	Bin Capacity	Dimensions (H x W x D) Note 1	Bin Lid Colour Note 2	Bin Body Colour Note 2
Garbage	240L 1,100L	1,060 x 585 x 730mm 1,330 x 1,240 x 1,070mm	Red	Dark Green
Recycling	240L 1,100L	1,060 x 585 x 730mm 1,330 x 1,240 x 1,070mm	Yellow	
FOGO	240L	1,060 x 585 x 730mm	Light Green	
Glass	240L	1,060 x 585 x 730mm	Purple	

Note 1. Bin capacity and dimensions are provided as an indicative dimension, sourced from Bin Supplier, 'Sulo'.
Note 2. Bin lid and body colours are based on the bin colour scheme set out in Sustainability Victoria's *Better Practice Guide for Waste Management and Recycling in Multi-unit Developments.*

3.3. Waste Systems

The waste management systems of the proposed development comprise of the following components:

- Immediate smaller bins within individual dwellings for temporary storage of garbage and recyclable waste,
- Mobile garbage bins within the basement bin store.

3.3.1. Waste Streams

The waste generated by the proposed development will be separated and managed into the following waste streams, as detailed below.

Table 6: Waste Streams

Waste Type	Waste Management
Garbage	Residents and staff will dispose of general landfill waste in tied plastic bags and dispose of the bagged garbage directly into the garbage bins within the bin store.
Recycling	Residents and staff will dispose of recyclable items directly to the recycling bins within the bin store. Cardboard items shall be folded where appropriate.
FOGO	Residents and staff will dispose of organic waste directly into the organic bins within the bin store.
	The property manager will be responsible for the collection and disposal of garden organics via a landscape maintenance contractor.

Waste Type	Waste Management
Glass	Residents and staff will dispose of glass waste directly into the glass bins within the bin store.
Paper & cardboard	Paper and cardboard waste generated by residents and staff is anticipated to be low and can be accommodated within the recycling bins.
Hard Waste	Residents and staff will dispose of hard waste including used furniture and white goods with the assistance of the property manager. Hard waste is to be stored temporarily in the space adjacent to the bin store outside of vehicle paths.
Other	Residents ad staff will dispose of electric waste including batteries, phones, computers etc. with the assistance of the property manager or drop it off at Lardner Transfer Station (Simpson Road North, Lardner). E-waste must not be disposed in landfill. Residents and staff can dispose of any charity goods at the local op shops or charity bins.

3.3.2. Waste Areas and Access

The proposed development provides a shared waste area within the basement for residents and staff.

Access to the waste areas will be via the lifts/stairs, as required.

The waste areas are illustrated at Figure 1.

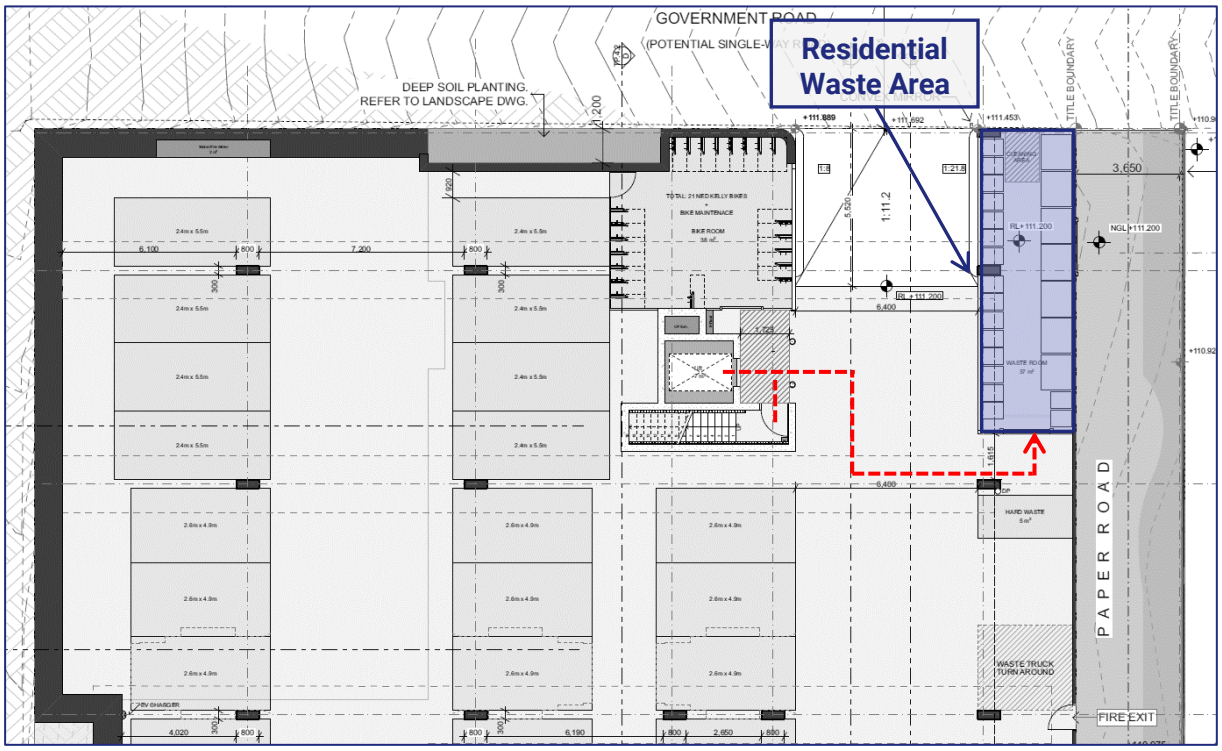


Figure 1: Proposed Waste Areas & Access Route

Table 7 details the waste area requirements based on the waste equipment proposed.

Table 7: Waste Area Requirements

Use	Waste Equipment	Net Area Note 1	Quantity	Net Waste Area Required	Waste Area Provided
Residential Dwellings & Ancillary Uses	240L	0.43m^2	15	6.45m^2	35m^2
	1,100L	1.33m^2	7	9.31m^2	

Note 1. Net area required is calculated from the dimensions of the bins.

Based on the above, sufficient space is provided for on-site waste storage for the residential dwellings and ancillary uses.

3.4. Signage

Prior to moving in and during induction, residents and staff would be advised on the waste disposal arrangement for the proposed development. Residents and staff will be provided with information regarding the four waste streams and guides on separating waste at the source to help reduce waste and separate recycling.

Appropriate signage as illustrated in Figure 2 will be displayed on the bins and the waste areas to assist in guiding and encouraging residents and staff to dispose of waste correctly into the appropriate waste streams.

Figure 2: Waste Signage Examples

3.5. Waste Collection Arrangements and Vehicle Access

3.5.1. Option 1 – Preferred Arrangement

Based on communication with private waste contractors, we have been informed that Warragul is expected to be serviced by the 6.4m long mini rear loading waste truck in the near future.

Accordingly, it is proposed that waste collection will occur on-site within the carpark accessway via a private contractor using the mini rear loader vehicle (typically 6.4m long with 2.2m headroom clearance along travel path). This arrangement is typical of similar developments in Metropolitan areas.

The waste vehicle will prop temporarily within the accessway as bins are transferred to and from the waste area. Waste collection will be undertaken during off peak periods to minimise disruptions to the carpark.

Traffix Group has provided advice to the project architect to accommodate vehicle access of the 6.4m long mini rear loader vehicle within the basement carpark. A minimum headroom clearance of 2.5m is provided within waste collection area to accommodate the rear lifting of the bins.

Swept path diagrams demonstrating vehicle access of the 6.4m long mini rear loader vehicle entering and exiting the site is attached at Appendix B.

3.5.2. Option 2 – Contingency Arrangement

Should the provision of a 6.4m long mini rear loading waste truck not be available at the time of occupancy, we propose waste be collected via a private contractor using an 8.8m long waste vehicle.

Waste collection will occur from the adjacent ROW. The waste vehicle will prop temporarily within the ROW as bins are transferred to and from the waste area. Waste collection will be undertaken during off peak periods (preferably prior to 6:00am) to minimise disruptions to the road network. According to private waste contractors who service Warragul, this arrangement is typical of similar developments within the Activity Centre.

This arrangement may require the use of mechanical bin tugs to aid in transferring bins to and from the waste area. We are satisfied there is adequate space for the storage of a mechanical bin tug adjacent to the bin store outside of vehicle paths.

After collecting bins, the waste vehicle will be required to reverse back onto Mason Street. However, we understand under ultimate conditions the ROW will be extended and connect to the local road network. Accordingly, under ultimate conditions the waste vehicle will exit the ROW in a forwards direction via the proposed extension to the east.

4. Amenity Impacts

It is the responsibility of the property manager to carry out the ongoing maintenance of all waste areas to minimise the following amenity impacts:

Ventilation/Odour Prevention

For developments using forced ventilation or air-conditioning system, adequate ventilation will be provided within the waste areas in accordance with AS1668.2 to ensure waste-related odours are minimised.

Noise Reduction

The waste facilities will comply with BCA and AS2107 acoustic requirements. Private waste collection will follow Council's and EPA guidelines to ensure acoustic impact is minimised.

Collection days and times will be determined following the confirmation of a specific private waste collection contractor by the property manager. Waste collection times should comply with the requirements under the EPA Noise Control Guidelines (Publication 1254):

Domestic Waste Collection

- *Collections occurring once a week should be restricted to the hours 6am — 6pm Monday to Saturday,*
- *Collections occurring more than once a week should be restricted to the hours 7 am —6 pm Monday to Saturday*

Industrial Waste Collection

- *Collections occurring once a week should be restricted to the hours 6:30am — 8pm Monday to Saturday, 9am – 8pm Sunday and public holidays*
- *Collections occurring more than once a week should be restricted to the hours 7 am —8pm Monday to Saturday, 9am – 8pm Sunday and public holidays*

Vermin Prevention & Litter Management

Waste areas will be secured to prevent any unauthorised use. Waste areas will be monitored by the property manager to ensure that bins are not overfilled and any spillage resulting from waste collection is appropriately addressed. All access doors and bin lids will be kept closed at all times to prevent vermin access to the waste areas.

Washing Facilities and Stormwater Pollution

Appropriate washing facilities including water supply and hose will be provided for the regular washing of the bins and waste area by the property manager. Washing facilities provided will be connected to the sewerage for drainage to prevent any stormwater pollution. Alternatively, third-party contractors can be engaged to provide bin washing services.

5. Ongoing Maintenance and Sustainability Initiatives

5.1. Maintenance Management

Further to the occupation of the proposed development, it is the responsibility of the property manager for the ongoing operation and maintenance of the Waste Management Plan.

The property manager will ensure that maintenance work and upgrades are carried out on the waste areas and components of the waste system. When required, the property manager will engage an appropriate contractor to conduct maintenance services, replacements or upgrades.

All ongoing costs are to be fully met by the owner(s) of the building.

5.2. Waste Reduction Strategies

The property manager will be responsible to encourage all users of the proposed development to reduce waste disposal and recycle materials based on the waste management hierarchy set out by Sustainability Victoria.

The hierarchy is detailed at Figure 3 below.

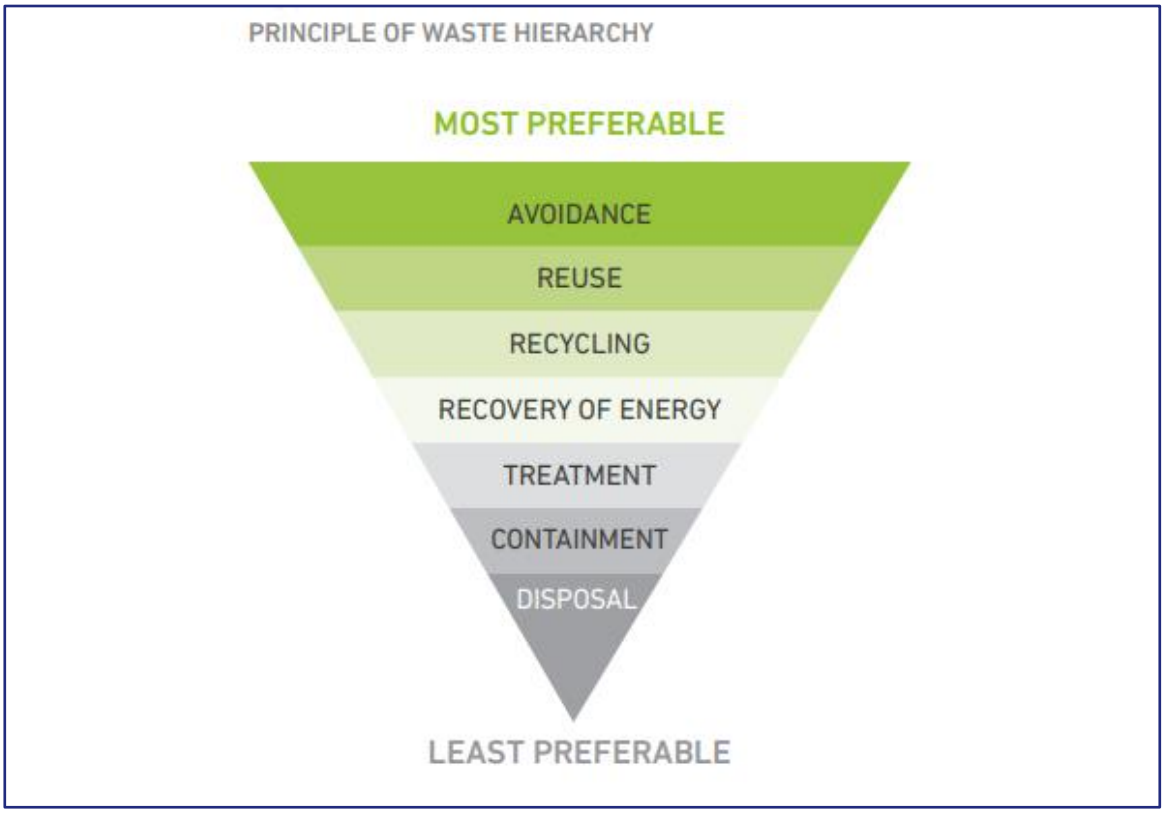


Figure 3: Sustainability Victoria's Waste Management Hierarchy

Additionally, the property manager can set targets and measures to reduce garbage going to landfill and increase recycling and choose to participate in Council's waste programs to promote sustainability initiatives.

5.3. Waste Management Rules

It will be the responsibility of the property manager to ensure all users are provided with the relevant information and materials regarding the waste management system and sustainability strategies of the proposed development.

Relevant information will be provided at the waste areas to ensure that all users will operate and maintain safe practice when utilising the waste facilities.

5.4. Monitoring and Review

This Waste Management Plan should be monitored and reviewed on a regular basis to ensure that it meets the regulatory requirements and the expected waste generation rates outlined in Section 3.1. The property manager will be responsible for monitoring the Waste Management Plan. Where required, the property manager should undertake a waste audit to identify any modifications and/or improvements to the waste management system.

6. Contact Information

Below is a list of common waste collection service contractors and waste equipment suppliers. The property manager is not obligated to procure goods/services from the following suppliers and reserves the right to choose their own preferred suppliers. Traffix Group does not make representations for the goods/services provided by the suppliers listed below.

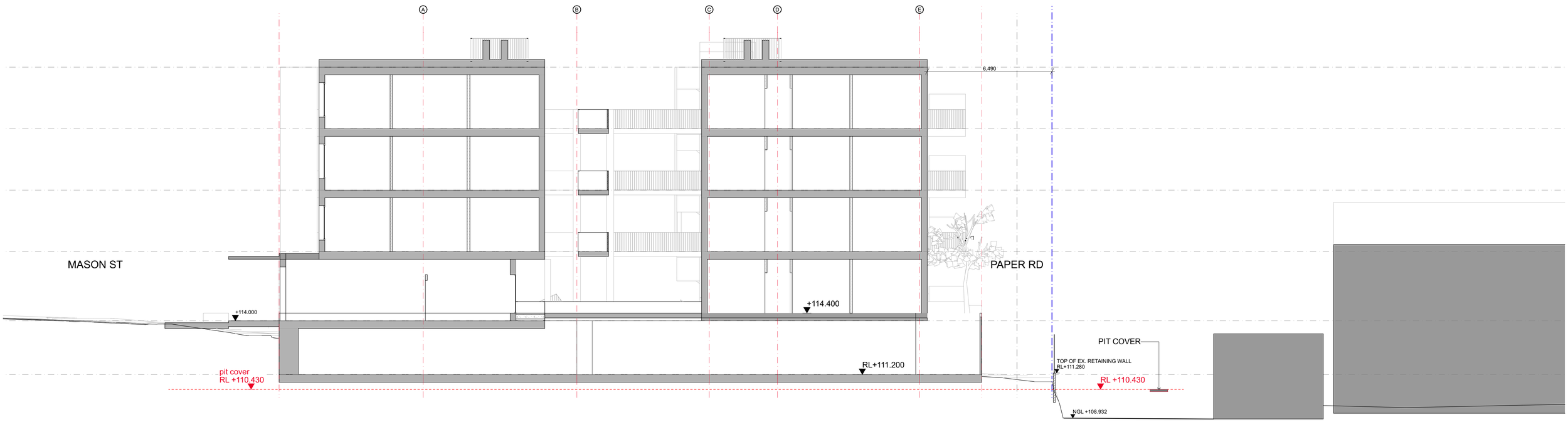
Table 8: Supplier Contact Information

Service Type	Business Name	Phone	Website
Private Waste Collectors	Citywide Waste	03 9261 5000	www.citywide.com.au
	SUEZ	13 13 35	www.suez.com.au
	Cleanaway	13 13 39	www.cleanaway.com.au
	Veolia	13 29 55	www.veolia.com/anz
	JJ Richards	03 9794 5722	www.jjrichards.com.au
	Waste Wise Environmental	1300 550 408	www.wastewise.com.au
	Kartaway	1300 362 362	www.kartaway.com.au
	iDump	1300 443 867	www.idump.com.au
	Waste Ninja	1300 648 088	www.wasteninja.com.au
E-Waste Collection	TechCollect	1300 229 837	www.techcollect.com.au
	ToxFree	1300 869 373	www.toxfree.com.au
Equipment Supplier	Sulo Australian (bin supplier)	03 9357 7320	www.sulo.com.au
	Mr Wheelie Bin (bin supplier)	03 9912 2850	www.mrwheeliebin.com.au
	Electrodrive (tug supplier)	1300 934 471	www.electrodrive.com.au
	Warequip (tug supplier)	1800 337 711	www.warequip.com.au
	Wastech Engineering (compactors & chutes)	1800 465 465	www.wastech.com.au

Service Type	Business Name	Phone	Website
	Elephants Foot (compactors & chutes)	1300 435 374	www.elephantsfoot.com.au
	ASI JD MacDonald (chutes)	1800 023 441	www.jdmacdonald.com.au
	Eco-safe Technologies (odour control system)	1300 135 039	www.eco-safe.com.au
Bin Washing Services	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
	Kerbside Clean-A-Bin	03 9588 1944	www.kerbsidecleanabin.com.au

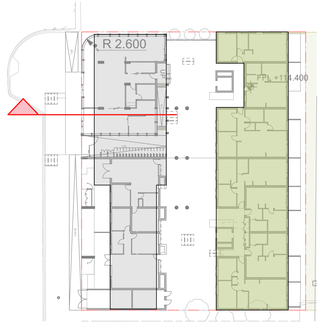
Appendix A

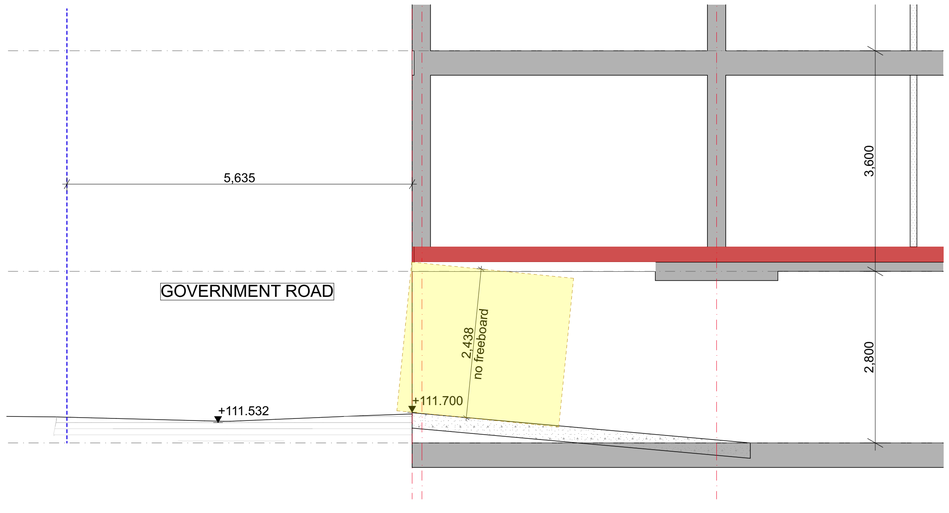
Development Plans



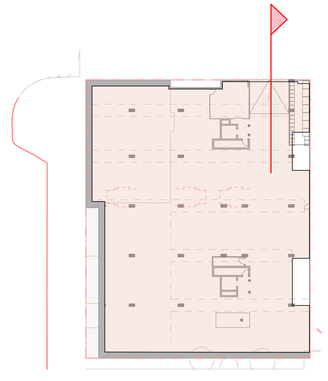
SECTION E-E

1:100





SECTION - CAR PARK RAMP 1:50



Freadman White

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REVISION

SD1	Preliminary for Review	Work in Progress

WORK INPROGRESS

CLIENT
Housing Choices Australia

18 Mason Street ,Warragul, VIC, 3820

TITLE
SECTION E

18 Mason Street, Warragul

STATUS
Town Planning
FOR DISCUSSION

DWG No
TP.4.4

ISSUE DATE
21/4/2023

SCALE
1:100, 1:500, 1:50 @ A1

GENERAL NOTES

1. Builder and or Subcontractor to supply one sample each of the proprietary items, finishes, samples materials and shop drawings for sign off prior to placement of order, fabrication or construction. Once approved one signed item is to be held by the Builder and one duplicate item to be forwarded to Client's Representative.
2. Do not scale from this drawing - use figured dimensions
3. A signed original of this drawing is retained in Freadman White Architects Offices for verification purposes.
4. Information detailed in drawing revisions is for information only and may not be indicative of all changes made.
5. Builder and or Subcontractor to confirm set outs, levels, setbacks and critical dimensions on site including all services fixtures and fittings prior to and during the works. Notify Architect to any conflicts discovered prior to proceeding.

Freadman White

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REVISION		
SD1	Preliminary for Review	Work in Progress

WORK INPROGRESS

CLIENT
Housing Choices Australia
18 Mason Street ,Warragul, VIC, 3820

TITLE
BASEMENT PLAN

18 Mason Street, Warragul

STATUS
Town Planning
FOR DISCUSSION

DWG No
TP.2.2

ISSUE DATE
21/4/2023

SCALE
1:100 @ A1

N

GENERAL NOTES

1. Builder and or Subcontractor to supply one sample each of the proprietary items, finishes, samples materials and shop drawings for sign off prior to placement of order, fabrication or construction. Once approved one signed item is to be held by the Builder and one duplicate item to be forwarded to Client's Representative.
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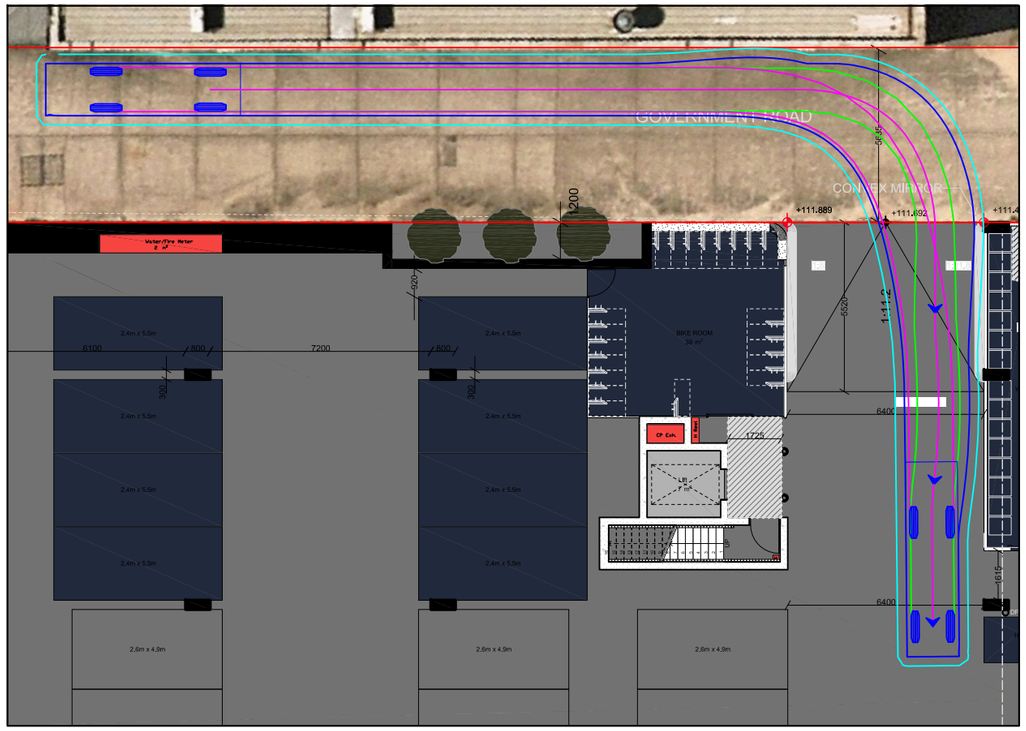
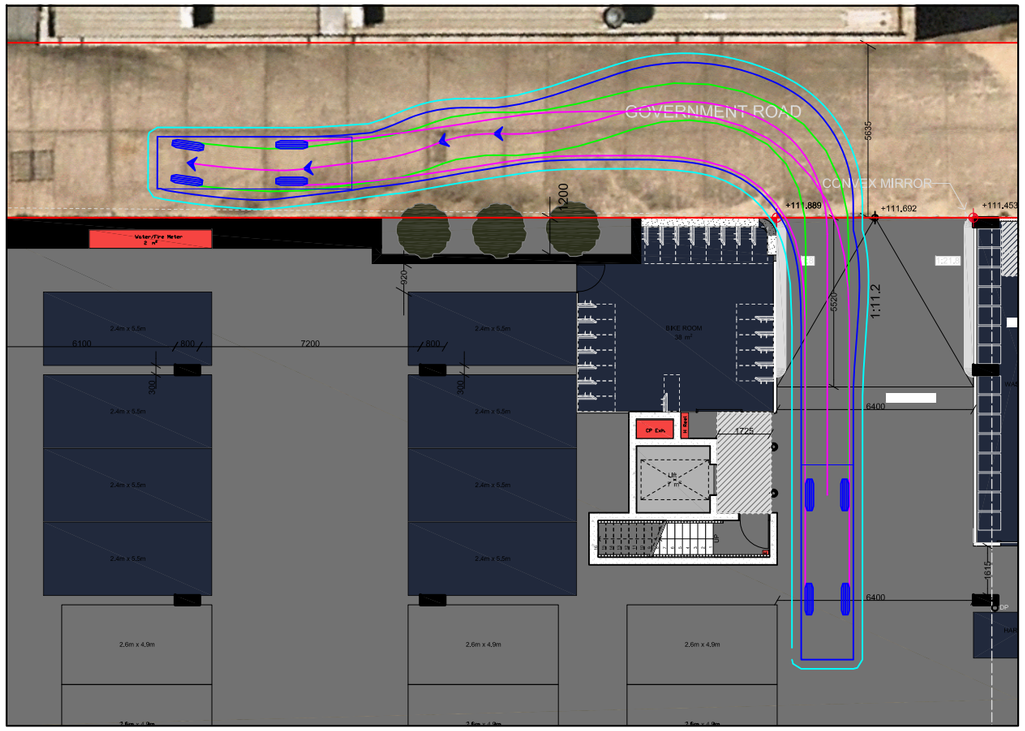
Appendix B

Swept Path Diagrams

WASTE TRUCK - INGRESS



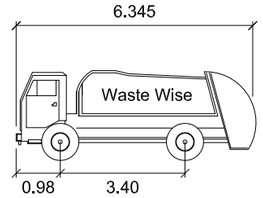
WASTE TRUCK - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



Waste Wise Mini (Hino 300)

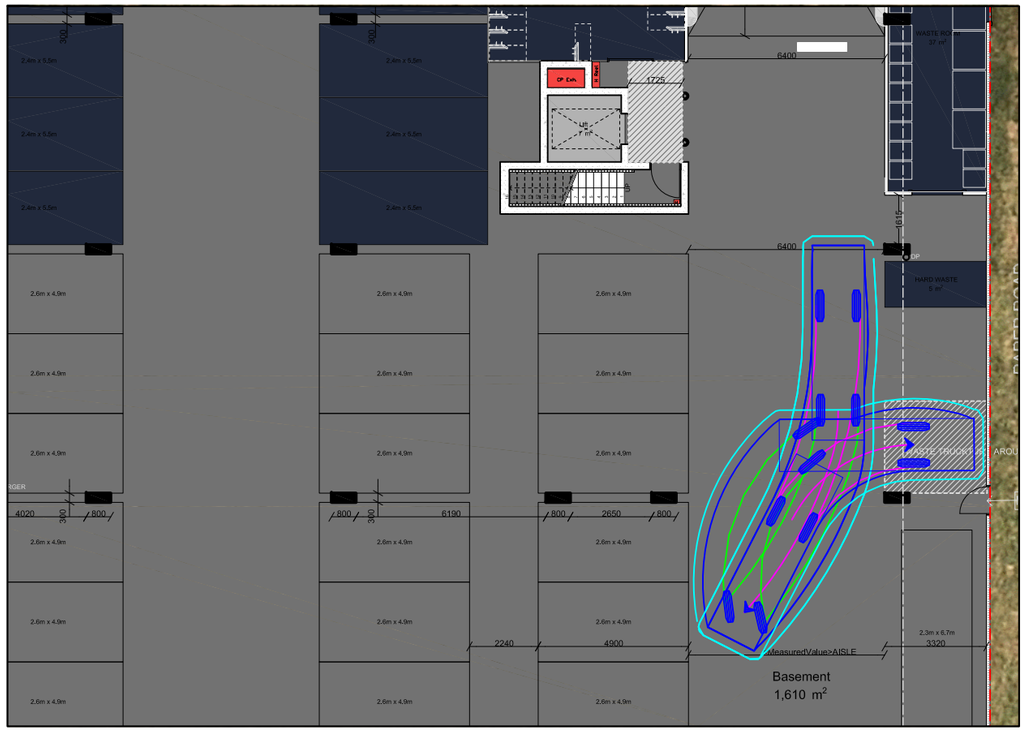
Width	: 1.7m
Front Track	: 1.4m
Rear Track	: 1.44m
Kerb to Kerb Radius	: 12.4m

LEGEND

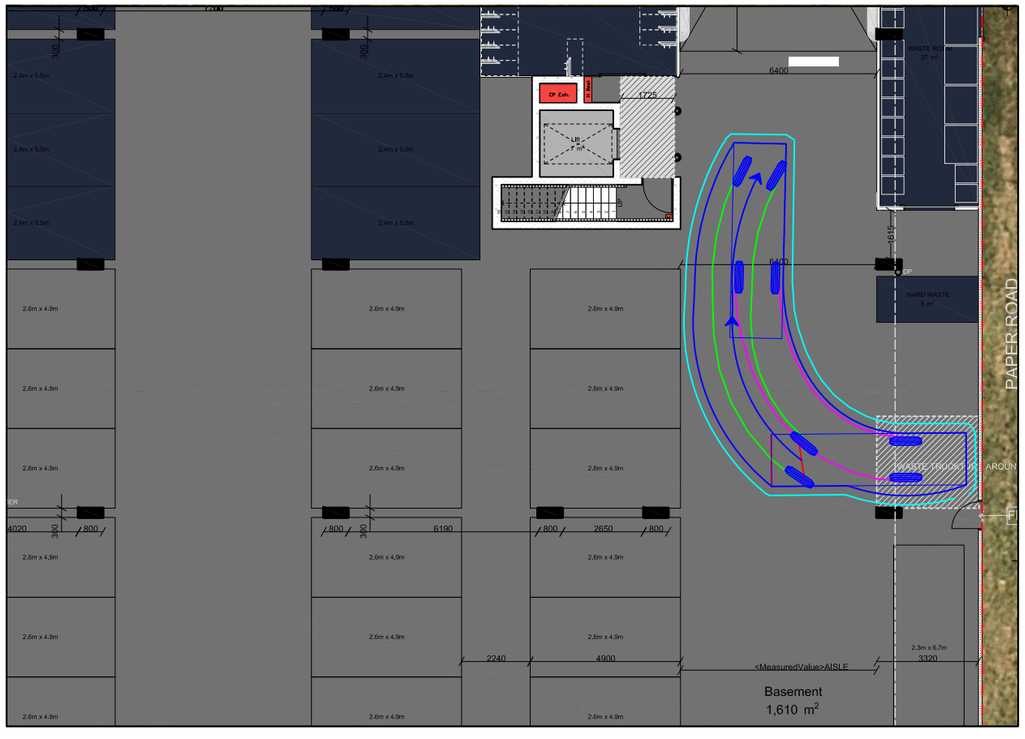
REAR WHEELS — VEHICLE BODY

FRONT WHEELS — BODY CLEARANCE

WASTE TRUCK - REVERSING MANOEUVRE INGRESS



WASTE TRUCK - REVERSING MANOEUVRE EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	01/05/2023	TOWN PLANNING	K. BALLANTYNE	M. O'SHEA

18 MASON STREET, WARRAGUL

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

BASE PLANS: TP.2.2 BASEMENT PLAN
PREPARED BY: FREADMAN WHITE

FILE NAME: G32628-01

SHEET NO.: 03

SCALE: 1:200 (A3)

0 2 4

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