

**Prepared by Instant Waste Management**

Lot 69 (#91) Strive Loop - Girrawheen WA - Waste Management Plan Rev: A – April 2019

**Waste Management Plan**

**91 Strive Loop Girrawheen – Blackmore Pk Estate**

**Within the City of Wanneroo**

**Issued by:**

**Jake Hickey**

**State Resource Development Manager**



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# Introduction

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## 1. Introduction

### 1.1. Executive Summary, findings, assumptions & recommendations

This Waste Management planning of a narrow residential access block requires many considerations. First of which was the diversion of waste from landfill, as per council bylaws & state government waste strategy targets. Followed by building occupants' amenities & their ease of use of the system by guests, occupants, the facility team members, caretakers and any visiting contractors.

Based on the yield schedule, the bin storeroom has enough size to allow for the buildings unit configuration. If larger bins are used via a private contractor, more space is available.

Signage (in text and pictures) for better diversion rates and reduced contamination of waste streams are recommended within these areas. As well as space for the temporary placement of bulk verge waste, that is to be removed by either private appointed waste contractor or taken by the residents to the local tip under fee payment or a recycling centre.

A request was made, following initial waste consultation with the Co-ordinator, Waste Operations at the City of Wanneroo's Depot. to allow us to move the wheelie bin waste presentation point to be located away from the visitors parking bays in Seaton Place. As the sites nearby are large waste generators in unit developments, (as long as waste is moved internally by site caretakers. Rather than using local government employees or city contractors inside the building). Due to tight access restrictions, there is no allowance for the presentation of bins all along the building's kerbside, working in partnership with the waste contractor, caretaker and council it is possible to present the waste kerbside during council collection regimes.... but a primary option is for a private service provision under the strata company's contractor. This is a preferred option of the local government officers during consultation, until smaller fleet trucks are available under their own contractor MSW control.

The City of Wanneroo design change was suggested at a late March design pre-scope meeting. The latest Traffic Impact Statement now shows that the unit kerb alignment has been amended to allow a little more change in directions for the side lift waste truck sweep path in travel. (Although parking signage will still be required along the faces of the buildings bins store in the laneway, with parking restrictions noted on waste bin collection weekdays). The design is now confirmed, with no parking allowed near the bin store in the main access road in to the garages. However, access is too tight for a side lifter truck to comfortably service the site and not restrict access, due to long bin loading times of 240L and 360L bins. Therefore, larger 660L or even 1100L bins are under consideration for the collection by a private rear lift truck and the driver will collect the bins from the bin store within the premises.

All other typical recommendations regarding bin store designs and drainage considerations are detailed in the Appendixes & drawings attached.

## 1.2. Purpose

This Waste Management Plan outlines the correct approach for the management of waste during the initial design, application for local government building approval & the end user / tenant waste generator's processes once the building is complete.

All construction, post design approval and the commissioning phases of the building are covered in a separate waste management plan or a facilities hand over pack.

## 1.3. Scope of Plan

This plan details the waste management strategy for the buildings' end users, and includes:

- Environmental protection from contamination by waste, debris or discharges;
- Management of solid environmental contaminants, waste reduction strategies, waste stream segregation (if required) and recycling.
- Allocates adequate space for bin storage & waste management for general & recycled waste.

## 1.4. Precedence

Where ambiguity is detected between the procedures and requirements in this plan and the design documentation, then the procedures nominated in this Waste Management Plan will take precedence.

## 1.5. Interface with other Project Plans and Procedures

This plan forms part of an integrated set of environmental documents and should only be read in conjunction with all other project documentation provided by the Summit Project's Group at Development Approval stage.

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### 1.6. Project Description

A detailed project scope and description is provided by Stefan Rawlings, Design Manager at Summit Projects.

Occupancy figures were generated from the yield schedule via drawings & emails.

- Units are treated as single house units as requested by City of Wanneroo.
- Yield schedule shows no more than 240L General Waste & 360L recycled waste generated per week on each unit.
- Allowance for one or two spare small bins held in the bin storage room. These are for transfer of litter and waste generators with limited mobility or disability. Serviced by the site caretaker either daily or as required. Suggest 110L bins or even 80L bins for ease of use in the units.

#### General Waste (Red lid 240L wheelie bins)

Figures taken from the City of Perth & WALGA waste generation rates would be lower.

Figures provided by City of Wanneroo in meeting is 240L per unit. X 22 units = 5,280L per week.

#### Recycled Waste (Yellow lid 360L wheelie bins)

Figures taken from the City of Perth & WALGA waste generation rates would be lower.

Figures provided by City of Wanneroo in meeting is 240L per unit x 22 units = 5,280L per fortnight..

#### Landscape (Lime Green waste N/A)

Private landscape contractors if needed.

#### Bulk Hard Waste (660L or 1,100L Rear lift bin truck)

By local government contractors or by private contractor under tenant or strata agreement.

5,280 divided by 660L = 8 bins of each type

Signage and brush covered holes to allow access to the bin to the elderly, children or infirm without having to lift the bin lid open.

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## 1.7. Document Control

Amendments to this Waste Management Plan are approved by Instant Waste Management & the Summit Group and distributed to all holders of controlled copies by Summit Projects.

Controlled Copy No.	Date	Name of Recipient	Organisation
WMP Instant Waste Rev: A	24 <sup>th</sup> April 2019	Stefan Rawlings	Summit Projects

Uncontrolled copies of this plan may be distributed to the Main Contractor, the project team & maintenance personnel.

These copies are not subject to automatic amendment and the receiver should verify currency of the document.

Revisions to this Plan will be made as required to reflect the current system requirements.

Current Revision Record:

Document Reference	Date	Revision	Description	Pages	Reviewed By	Approved By
WMP – Instant Waste Rev A	24 <sup>th</sup> April 2019	Rev: A	Issued for Development Approval	1 - 14	Jake Hickey	Stefan Rawlings

# Waste Management

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## 2. Waste management plan

### 2.1. Introduction

Waste can affect different aspects of the environment and may cause contamination, impacts on visual amenity and health effects. Waste materials that may be produced on the Project site include:

- Litter including food and drink packaging;
- General Waste from tenants
- Recyclable waste from tenants
- Maintenance works waste
- Office equipment paper, cardboard from packaging, etc.; and

It is important that all litter and waste generated by maintenance activities is constrained within the project area, using designated bins and waste management procedures. At no time should surrounding premises or environments be impacted by waste from maintenance or construction.

### 2.2. Recycling

The guiding principle of waste management is to minimise the impact of waste on the environment and the public wherever practicable. The hierarchy of waste management applied is:

- a) Avoid – making the waste in the first place – alternative designs & lean procurement systems.
- b) Reduce – via prevention or elimination of waste products;
- c) Reuse – find a secondary use for the waste product; and
- d) Recycle – alternative use for waste product which may include reprocessing of product.
- e) Recovery – divert materials away from landfill that can be processed into feedstock for the waste to energy sector.
- f) Landfill – control the destination of waste to its' relevant class of landfill site.

Waste products shall be eliminated, prevented and reduced wherever practicable. This shall be achieved through rationalising the number of products onsite, finding alternative products which assist in volume reduction and are recyclable. Other methods to help minimise the generation of waste include:

- Storing maintenance materials safely to avoid damage and loss.
- Regular orders in an “as needed” basis rather than large stock levels of consumables.
- Keeping materials in their packaging for as long as possible to protect them from damage.
- Reuse of materials until no longer fit for purpose.
- Reuse of materials for alternative purposes,
- Finally the product can be transported offsite for further processing and recycling by the licensed waste contactor.

# Waste Management

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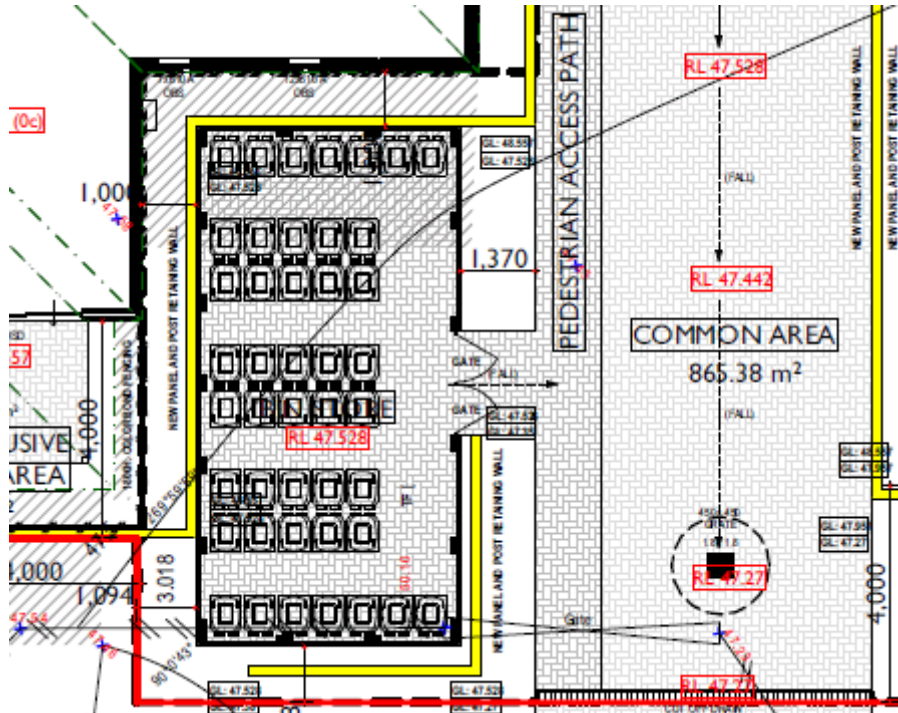
## 2.3. Aspects requiring management

Maintenance processes & unit estate buildings have the potential to produce a large amount of solid waste; Therefore it is important to properly design & manage the waste flow. Potential aspects of waste management include:

- Generation of solid wastes, such as plastics, paper and aluminium cans, by tenant may impact the surrounding environment if they are not contained and properly managed;
- Waste not properly contained may attract unwanted feral animals & odours;
- Bin storage designs, their maintenance, access & locations.
  - Volume of waste & recyclables
  - Access to bin storage & transferal to collection point;
  - Frequency of collection
  - Safety of waste operatives & members of the public
  - Truck access to roads & site. (turning curves & bin sizes)
  - Amenity (plant machine noise and waste odours)
  - Local Government requirements
  - General waste, generated in the apartments is transferred to the bin store via the Care Taker under strata agreement.
  - Recycled commingled waste & general waste is deposited in the bins on the each floor by the tenants in clearly marked bins.



Bin Store Room for general waste; commingled recycling bins & bulk hard verge waste.



2<sup>nd</sup> option shown above: 240L General Waste and 360L Comingled Recycling bins. Local Government Side arm as per traffic swept path shown in appendix.

1<sup>st</sup> Preferred option allows for even more space in bin store, as it only requires 8 x 660L bins of each type. General waste and Commingled recycling

Table for Waste Streams likely to be generated

Waste Stream	Waste generation	No. of weekly collections	Available Footprint in bin store & kerb*
General Waste	240 Litre per unit x 22 units = 5,280L per week	<22 x 240L weekly by local government or 8 x 660L by private contract	The bin store allows for space for relocation and the access of the area by members of the public.
Commingled Recycling	240 Litres per unit x 22 units = 5,280L per week	<15 x 360L by local government or 8 x 660L by private contractor, consider 1,100L	The bin store allows for space for relocation and the access of the area by members of the public.
Landscape	TBC	By private contractor	N/A
Bulk	TBC	By private contractor or tenant to tip with fee paid	N/A

\* ~740mm width apart allowed for each 240L or 360L bin presentation as recommendation by local government.

## 2.4. Objectives, Targets & KPI's

Objective	Target	Key Performance Indicator
Solid and liquid waste to be disposed of as per regulatory requirements.	All waste to be disposed of by a licensed waste contractor. (Private or Council)	Onsite waste disposal facilities kept clean & odour free. Any moving parts separated from public.
Client aim to maximise landfill diversion	Recycle commingled waste bins used	Commingled bins not contaminated
No waste to affect nearby premises or tenants	Limited complaints relating to waste	No. of complaints relating to waste

## 2.5. Building Management Actions

Parameter	Action	Timing	Responsibility
Induction	During inductions all maintenance personnel shall be made aware of individual responsibilities in regards to waste management, including the understanding that all personal rubbish and maintenance rubbish generated is to be properly disposed of in designated disposal facilities	Establishment of a permit to work or similar maintenance systems.	All contractors & sub contractors, Building Supervisor
Waste Management Plan	Maintenance subcontractors will be required to comply with the Waste Management Plan for their Scope of Work. Detailing the type of waste generated, waste avoidance / reduction / reuse / recycling strategies if required.	Establishment of landscape contract	Maintenance & landscaping contractors. Building Supervisor
Waste Disposal	Secure appropriate waste disposal facilities (wheelie bins) shall be provided in strategic locations onsite. Waste bins shall be located such that they do not affect the community and not too close to surrounding premises. Separation of waste for recycling will be enforced and monitored at Car Park recycling points.	Occupancy	Building Supervisor
Waste Disposal: Storage & transfer of waste to a collection point	Waste disposal facilities shall be regularly collected or emptied by a licensed waste collector in accordance with Local Council Health Laws.	Occupancy	Building Supervisor
Storage Area design	Where possible a secure storage area allocated for the collection & recycling of waste will be established.	Design	Designer & or Architect
See next page for more parameters			

Parameter	Action	Timing	Responsibility
Waste Contractors	Licensed contractors shall be engaged to remove waste.	Handover from construction project team to maintenance team	Project Team & Maintenance team
Putrescibles Waste (Organic only bins)	All putrescibles waste to be placed in a lidded bin and removed separately if it becomes a condition of local government.	Occupancy	Building Supervisor
Recycling / Waste Reduction	Recycling initiatives will be investigated and implemented on site if required.	Occupancy	Building Supervisor
Site Maintenance office or Building Supervisors' stores	The site supervisors' office shall implement office waste minimisation techniques: <ul style="list-style-type: none"> <li>• Reuse methods where possible.</li> <li>• Using electronic documents to reduce use of paper</li> <li>• Purchasing products in bulk to reduce packaging</li> </ul>	Establishment	Building Supervisor
Hazardous Waste	Hazardous waste will be managed and disposed of as per the Material Safety Data Sheet requirements and Environmental Protection (Controlled Waste)	End of Defect works (Construction), Maintenance teams & Building Supervisor	Sub Contractors & Building Supervisor
Servicing & cleaning of Carousel & bin store	Where practicable bin storage plant will be serviced by licenced contactors to reduce the risk of waste onsite and potential for chemicals spills.	Maintenance	Building Supervisor

## 2.6. Monitoring the Actions of Building users

Type of Monitoring / Reporting	Timing	Responsibility	Record
Measure the diversion from landfill of recycled waste streams	Monthly	Building Supervisor	Internal record keeping
Measure the amount of General waste	Monthly	Building Supervisor	Internal record keeping
On site segregated waste (if required). Appropriate, secure waste placement	Daily	Building Supervisor	Internal record keeping

# Appendix I

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## Apartment waste management:

Separation of waste at point of generation: Recommend that two separate bins to be incorporated into the design of the unit's kitchens should be sufficient to store waste & recyclables generated overnight. = 1 x 18 litre bin for general waste & 1 x 18 L bin for commingled recycling.

## Bin store & recycling collection point design considerations:

Size: The size of the area set aside for the management of waste is sufficient to accommodate the number of bins required (based on the compaction ratio and the collection regime provided).

Ventilation and odour: The design of the bin store will provide for adequate natural ventilation through ventilated doors which will be permanent, unobstructed natural ventilation openings direct to the external air, not less than one-twentieth i.e. 5% of the floor area.

Lighting: Artificial light controlled by switches will be located both outside and inside the room.

Noise: Waste and recyclables will be collected from the waste collection point on the ground level which is not adjacent to ground floor residential dwellings. Apart from commingled recycled waste, which can be gathered for collection on each floor and transferred by the Site Supervisor to the bin store as required.

Signage: Clear and easy to read "NO STANDING" signs and "DANGER" warning signs for children will be fixed to the external face of each waste and recycling room where appropriate and signage designating the storage of RECYCLABLES will be fixed to the internal wall(s).

Aesthetics: The bin store has been designed within the development and as such will be consistent with the overall aesthetics. The waste collection point is located away from the front or main entrances to the building and avoids setting bins out along the external walls of the building.

Protection from Fire, theft and vandalism: The bin store is located on the ground level and access will be restricted to only the Site Supervisor and the approved building user & maintenance staff.

Vermin: On the ground floor self-closing double or leaf & a half doors to eliminate access to vermin will be installed. Washing bins and waste storage area: The bin store will have bin-washing facilities including an adequate supply of hot and cold water mixed through a centralised mixing valve with hose cock and have floor drainage installed. The site supervisor will be responsible for washing bins (or contracting the waste and recycling service provider to wash bins) and for maintenance of the bin store. The walls, floors and ceilings of the waste room(s), recycling room(s) and service compartment(s) will be finished with a light colour

Distance from service area & truck access: Reasonably level ground, with flat trafficable (wheelie bin width) access paths from the bin store to the presentation point are required. As the verge collection space doesn't allow for enough space for side lifter bins to be placed in a single line these would need to be presented by a site caretaker in co-ordination with local government or provision of private service by rear lift truck straight from the bin store. *No Tip passes are provided by City of Wanneroo.*

# Appendix II

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**Bin Vehicle Specifications Provided for reference only.  
As site will be serviced by private provision rear lift truck using 660L bins.**

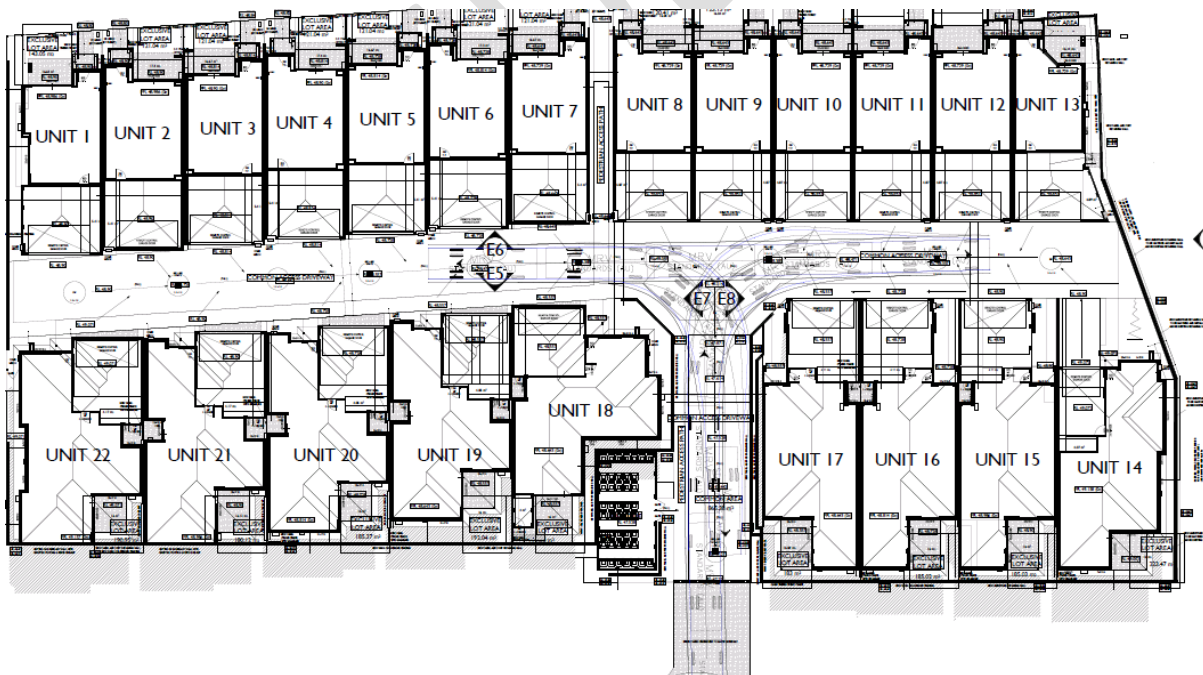
See attachment provided in Appendix III

### Bin Specifications

Capacity	120L	240L	660L	1100L
Depth	0.620m	0.715m	0.765m	1.070m
Width	0.540m	0.580m	1.360m	1.360m
Height	0.920m	1.075m	1.235m	1.485m

Further bin type sizes and truck turning curves can be provided on request.

A full Traffic Management Plan provided by others.  
Side lifting arm truck swept path curve shown below. (Enter and exit in a forward gear).



# Appendix III

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Referenced documents:

- Drawings of Bin Storage area & Recycling bin store detailed in Drawings attached.
- Estate layout lot yield schedule.
- Typical truck data flyers & bin sizes available on website & provided by Local Government for typical side lifting truck.
- Sweep path under traffic impact statement by traffic management consultant.
- City of Wanneroo website link for their waste management collection days <http://www.wanneroo.wa.gov.au/wasteandrecycling>
- If you see illegal dumping (report it to Strata Management if on private land).
- Note no verge collection available or tip passes from local government.

SALES DATA SHEET				BUCHER municipal	
SD 09/2014		ACN 004 992 090			
PRODUCT NAME	DATE	REVISION	SHEET	SD-SL5TS4122/V10650	
SPORT GEN V	19/03/2015	05	1 OF 1		
PRODUCT CODE	PRODUCT SIZE/CAPACITY	SALES MARKET	PRODUCT FUNCTION VARIATION		
SL5-A-4122	22m3	DOMESTIC			
BODY OPTIONS					
VEHICLE MAKE		VEHICLE MODEL	AXLE CONFIGURATION	WHEELBASE	
IVECO		ACCO F2350G - EURO 5	6x4	5000	
CAR/CHASSIS OPTIONS				VES CODE	
RUBBERBLOCK SUSPENSION				2 / 26 A 11211	

	FRONT	REAR	TOTAL
TRUCK	4230	3135	7365
BODY	1320	3410	4730
OPTIONS	0	0	0
TARE	5550	6545	12095
PAYLOAD	944	9955	<b>10898</b>
TOTAL	6493	16500	22993

**Disclaimer:**

The information contained in this entire Waste Management Plan & the attached documents are provided by Instant Waste Management in good faith. The company believes the information to be accurate and current at the date of publication (June / July 2018). The company does not guarantee or warrant the accuracy, completeness or currency of the information provided. All care and no responsibility has been taken by Instant Waste Management in the creation of this Waste Management Plan. No Professional liability can be passed onto the author.