

Prepared by Instant Waste Management

102 to 106 Cockman Rd – City of Joondalup WA - Waste Management Plan Rev: B – July 2022

Waste Management Plan

Child Care Centre

Corner of Cockman Road & Ollis Street

Within the City Joondalup

Issued by:

Jake Hickey

State Resource Development Manager

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Introduction

1. Introduction

1.1. Executive Summary, findings, assumptions & recommendations

This Waste Management planning of a commercial Child Care Centre 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 amenities & their ease of use of the system by guests, occupants, the facility team members, caretakers and visiting guests & contractors.

Private rear lift trucks will enter and exit the site via a one way internal road and service bins.

Based on the new design / yield schedule, the ~10m² bin storeroom (3950mm x 2550mm) has enough size to allow for the buildings' bin configuration, with allowance for 2x660L Landfill (Red) 2x660L Commingled (Yellow) and future proofing of FOGO in 240L should it be mandated by local government, (FOGO green lidded bins are not currently a requirement of commercial properties within Joondalup under planning approval, although recommended in the comments provided by the Waste Department as part of the planning review in June).

Signage (in text and pictures) for better diversion rates and reduced contamination of waste streams are recommended within all waste generating areas. As well as space for the temporary placement of bulk verge waste, or maintenance refurbishment waste that is to be removed by private appointed waste contractor.

All other typical recommendations regarding bin store designs and drainage considerations are detailed in the Appendixes & drawings attached. We plan to use either 240L or 660L bins. Due to the implications of higher levels of odour management (Nappies) the future considerations of mechanical ventilation systems is needed... the bin store has been sited to the Eastern boundary of the site to avoid the loss of play space for the children & increase the local social amenities for any passers-by, if the bin store or ventilation was positioned on the front elevation street. This point was also raised in council consultation but the location of the bin store is placed for the convenience of waste generation and only accessible externally from the building to reduce odour, meaning its placement would always be on the boundary.

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 waste, liquid, post design approval and the commissioning phases of the building excluded from this planning document.

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.

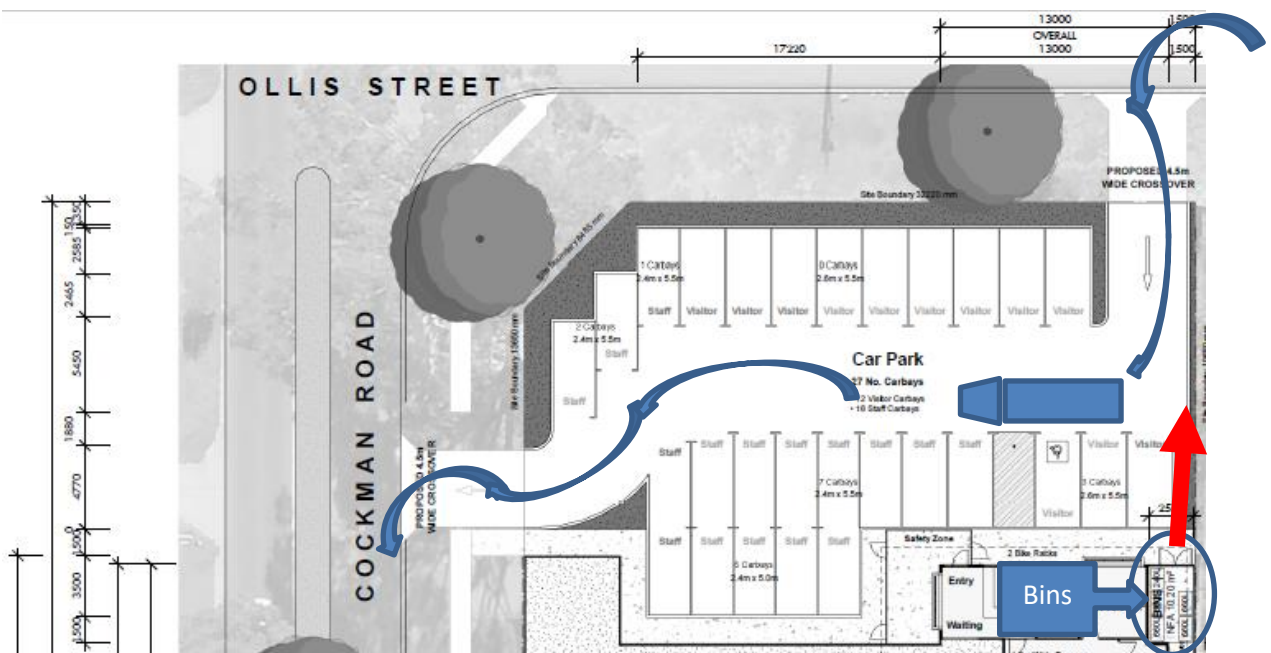
1.4. Precedence

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 Developer at Development Approval stage. Of note is the traffic impact statement or management plan.

[Not to scale except of re-design of car park with one way system in July 2022 below.](#)



1.6. Project Description

A detailed project scope and description was provided Urbanista and Meyer Shirecore Architects. The Gross Floor Area of the building structure is ~608m² but the actual waste generating areas within are only ~336m². However, all waste generation calculations have used the GFA of >608m². 608m² /100m² x 350L per week is 2,128L (or 3.2x660L bins weekly) =2x660L collected twice weekly

Waste Generation figures at 350L per 100m² per week for both commingled and general waste, were provided by the City of Melbourne (as City of Perth doesn't have figures for childcare generation rates) following consideration of the m³ of the active area's floor foot print via drawings & emails provided April / May and again in July 2022.

- Yield schedule of ~608m² Gross Floor Area shows no more than 2x 660L of General Waste and 2x 660L of commingled recycling would need to be collected per truck lift twice per week.
- Serviced by the site caretaker as required & presented for private contractor collection within the boundary line by a vehicle that enters and exits in a forward gear. (As show in the Traffic Impact Statement provided by Uloth).

General Waste (Red lid 2x 660L wheelie bins serviced twice weekly)

Figures taken from the City of Melbourne & consideration towards WALGA waste generation rates

Recycled Waste (Yellow lid 2x 660L wheelie bins serviced weekly)

Figures taken from the City of Melbourne & consideration towards WALGA waste generation rates

Landscape (Lime Green waste N/A)

Private landscape contractors if needed. Utes servicing the site will go to private recycling facilities.

Bulk Hard Waste (moved by private contractor to tip or recycling facility)

Private contractor under cleaning contract or agreement.

FOGO (Green lid)

Future proofing of this element has been allowed within the space of the bin store with provision of an extra 2x240L above the needs of the general waste calculations. With expectation that general landfill waste would be reduced by these volumes in collection if a private or public organics bin is collected.

1.7. Document Control

Amendments to this Waste Management Plan are approved by Instant Waste Management & Planning Development and distributed to all holders of controlled copies by Urbanista Planning.

Controlled Copy No.	Date	Name of Recipient	Organisation
WMP Instant Waste Rev: B	13 th July 2022	Bianca Sandri	Urbanista Planning

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	12 th May 2022	Rev: A	Issued for DA	1 - 14	Bianca Sandri	Bianca Sandri
WMP – Instant Waste Rev B	13 th July 2022	Rev: B	Incorporation of waste dept comments as issued June 2022 to Urbanista	1 - 15	Bianca Sandri	Bianca Sandri

Waste Management

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, cardboards, etc.; and
- Wastewater – generated by flood events

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.

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,
- Residuals product can be transported offsite for further processing and recycling by the licensed waste contractor, waste to energy or licensed landfill.

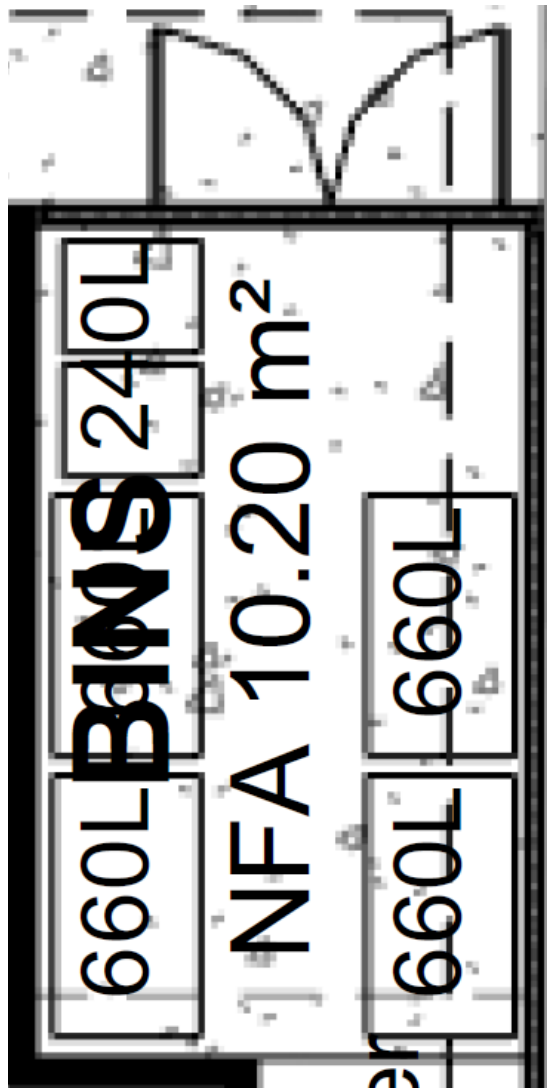
Waste Management

2.3. Aspects requiring management

Maintenance processes & large active occupied 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 controlled by ventilation)
 - Local Government requirements
 - General waste, generated in the building is transferred to the bin store via the Care Taker under strata agreement.
 - Recycled commingled waste & general waste is deposited in the bins by the tenants in clearly marked bins.

Ground Floor Garbage Room for general waste commingled recycling bins & future proofed FOGO.



See Traffic Impact Statement for turning curves and recommendations if internal service is needed in car park. Reversing bay can be used with small rear lift truck from private contractor.

Table for Waste Streams likely to be generated

Waste Stream	Waste generation	No. of weekly collections	Available Footprint in bin ~10m ² store
General Waste	2,128L per week	<2x 660L twice weekly or as required with options for 5x240L twice weekly	Yes within bin store
Commingled Recycling	2,128L per week	<2 x 660L twice weekly or as required with options for ~3x360L twice weekly	Yes within bin store
Landscape Bulk	TBC	By private contractor	N/A
FOGO	Future proofed	Private contractor	~ transported to landfill or recycling facility Yes within bin store

2.4. Objectives, Targets & KPI's

Objective	Target	Key Performance Indicator
Solid waste to be disposed of as per regulatory requirements.	All waste to be disposed of by a licensed waste contractor. (Private).	Onsite waste disposal facilities kept clean & odour free. Bin cleaning regime by site caretaker or private contractor.
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"> • Reuse methods where possible. • Using electronic documents to reduce use of paper • Purchasing products in bulk to reduce packaging 	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

Internal waste management:

Separation of waste at point of generation: Recommend that two separate bins to be incorporated into the design of all the changing areas, which should be sufficient to store waste & recyclables generated in each day. Paper and Cardboard packaging can also be considered if volumes warrant it in place of one of the 240L FOGO bins provided for future proofing waste streams.

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). Even if the bin store needed to store all the waste in 660L bins beyond collection date. (~30% extra)

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. Due to the nature of this site mechanical ventilation should be considered in design to prevent the space becoming too odorous.

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 entrance, between 7am – 5pm. Consideration should be given to commingled, As this stream can be noisy if glass is involved. Collection by driver via access path 1.5m wide past visitors bay into carpark means bins can be compacted away from the neighbours on the boundary line if needed to reduce noise and odours at point of compaction in rear lift truck.

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 or detracting for safety elements of small children being dropped off at the centre during all hours.

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 non permeable floor with drainage installed. The site supervisor will be responsible for washing bins (or contracting the 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 non permeable & finished with a light colour. Floor drainage will be required.

Distance from service area & truck access: Reasonably level ground, with flat trafficable (bin width) access paths from the bin store to the presentation point are required. The collection point needs enough free standing space for all bins behind the truck and should be as close by to the building as possible to shield empty bins from heavy winds during collection and return to bin store by driver or presentation by caretaker, staff.

Appendix II

Bin Vehicle Specifications Provided for reference only, as site will be serviced by rear lift truck

See attachment provided by traffic consultant for sweep paths and truck specifications of active fleet trucks.

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 is to be provided by others.

Summary of truck movement:

Rear lift will arrive and enter the site via one way system on Ollis Street, park within the car park, collect the bins via the access path to the bin store on the Eastern Boundary of the site and compact them into the rear lift truck away from the turning point to enter the car park, the entrance to the child care centre and the adjoining neighbouring boundary line. Then exit onto Cockman Road with the flow of traffic in a forward gear. (NO verge presentaiton of bins).

Appendix III

Relevant documents:

- Drawing development during April, May & June showing one way system for trucks to enter and exit in a forward gear.
- Traffic Impact Statement provided by Uloth in May 2022 with updated appendix in July 2022 showing above one way system with rear lift turning sweep paths.
- Drawings of Bin Storage area & truck collection on Ollis St shown dated 12th July 2022.
- Specification of internal under counter or open plan litter bins & bin transfer areas to be developed by the design team at later stage for operational waste needs.
- Typical truck data flyers & bin sizes available on website & provided by waste contractor showing typical bin sizes used by commercial sites for removal of waste.
- Waste generations figures used from the City of Melbourne as no Perth metropolitan council or WALGA figures are available for childcare centres.
- Waste generation figures emailed to design team for consideration in May 2022.
- June 2022 comments addressed from council in this revised WMP issued to WMP in July 2022. Shown below.

Waste comments from City of Joondalup	Applicant Response (WMP consultant)
1. The bin store size doesn't seem big enough, a diagram showing the bin store size, length and width with the bin configuration in it needs to be added to the Waste Management Plan.	Added dimensions are 10m ² (3950mm x 2550mm) with scale drawing showing 4x660L and 2x240L bins within a revised larger layout provided to WMP in July 2022 and submitted as part of re-design package.
2. The location of the bin store is very close to the neighbours.	Unavoidable. Mechanical ventilation recommended in WMP. Also, the emptying of the bins can be conducted via compaction truck away from the boundary line to avoid external odours and noise when trucks are on site. Limits standard collection regime to align with residential noise restrictions 7am – 5pm.
3. The collection of bins seems to be from Ollis St. <u>Vergeside collection is not permitted for commercial properties</u> . Collection must be from within the property boundary.	One way system incorporated into design with sweep path provided by traffic consultants. Entry and exit in a forward gear with the flow of traffic. NO verge collection
4. This sentence in Appendix 2 doesn't make sense. <i>"It is the intension that the rear lift truck drive up to the site on gazetted road Ollis Street & collect the waste from the waste bin hard standing area or bin store within the building boundary away from the entrance to the car park to avoid risk to children entering the site or multiple smaller bins becoming trip or crushing hazards in windy conditions when</i>	Removed from Appendix 2. As collection is now conducted within boundary line from bin store and bins returned by private contractor / strata management to bin store after emptying.

<p><i>presented kerb side to back of truck then returned.”</i></p>	
<p>5. A drive path showing where the truck will enter the property, drive, and stop for waste collection needs to be added.</p>	<p>Shown in excerpt of new car park design showing one way system. More detail on sweep paths provided by Traffic consultant.</p>
<p>6. The expected truck size, collection times need to be added.</p>	<p>Medium rigid rear lift truck from private contractor, 8m3 truck size provided to Traffic consultant for use in traffic sweep paths. Information shown in traffic management plan as professional indemnity limits its issue within waste management plan.</p>
<p>7. There is no mention of bin store tap, wash down facilities or drainage.</p>	<p>Was always mentioned in Appendix I, in the second to last paragraph: Under Vermin.</p>
<p>8. Considering food will be made for around 70 plus kids each day there should be some organic food waste collection for the cooking waste and leftover scraps.</p>	<p>Future proofing of the commercial development for FOGO has been undertaken with provision for two FOGO 240L bins (which are not mandated under local government planning). These could be used for FOGO or Paper and Carboard recycling dependant on actual waste volumes, contamination rates and commercial considerations; with the avoidance of landfill meaning that any use of these extra allocated bins, in turn means a reduction in the general landfill bins required.</p>

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. 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.