

WASTE MANAGEMENT PLAN

FOR RESIDENTIAL DEVELOPMENT

AT *484-488 BRINGELLY ROAD, AUSTRAL*



Friday, 7 July 2017



1. Executive Summary

This waste management plan covers both waste management during the construction phase and the ongoing management of waste generated by the residential development located at 484-488 Bringelly Road, Austral.

The development consists of 4 apartment buildings comprising 253 units.

The project has two residential lots:

- Lot 1 - 5569.0m²;
- Lot 2 - 7261.5m²;

And 3 roads:

- One (1) 8.0 meters half road,
- one (1) 16.0 meters local road,
- and one (1) 13.1 meters service road;

Lot 1 has two (2) x 4 storey residential flat buildings on Lot 2, comprises 109 units with following dwelling mix:

- 1 bedroom units - 23;
- 2 bedroom units - 78;
- 3 bedroom units - 8;

The buildings contain a level of basement carparking containing 139 spaces comprising:

- 117 residential car parking spaces including 11 accessible spaces
- 22 visitor spaces

Lot 2 has two (2) x 4 storey residential flat buildings on Lot 2, comprises 144 units with following dwelling mix:

- 1 bedroom units - 24;
- 2 bedroom units - 118;
- 3 bedroom units - 2;

The buildings contain a level of basement carparking containing 182 spaces comprising:

- 152 residential car parking spaces including 16 accessible spaces
- 30 visitor spaces

2. Demolition Phase

The waste will be separated on site by builder's demolition contractors and builder's labourers during the demolition stage.

The demolition contractors will use specialised machineries to demolish each type of material separately with minimum mixing of waste and the reduction of manual labour to separate the demolished materials. The staffs need to be trained to separate the waste in separate waste bins in order to send the recyclable materials (like metals, bricks and concrete) from non-recyclable material (like plastic, PVC ...).

The site needs to be checked on a regular basis to make sure no recyclable materials are mixed with non-recyclable materials. And to set aside on site an area to store the recyclable materials for transportation to local recycling plants.

The site manager need to erect a sign on site for waste areas, and should inform the builder's staff where material to be collected for recycling.

Waste Recycling

Waste generation from construction activities on site will be minimized, reused or recycled where applicable;

Recyclable materials are to be specified wherever practical;

Dedicated and secure containers will be provided on site by an approved waste handling company for non-recyclable waste;

Where practical, dedicated and secure recycling containers will be provided on site by an approved waste handling company, manufactures, or specialist recycling organizations for the following materials:

Steel

Paper/Cardboard

Glass

Concrete/Brick/General Rubbish

Plasterboard

Materials On-Site		Destination		
		Reuse & Recycling		Disposal
Type of material	Estimated Volume in m3 or area in m2 or weight in tonne (t)	On-Site Specify how materials will be reused or recycled on-site	Off-Site Specify the contractor and recycling outlet	Specify the contractor and Landfill site
Bricks	30 m3	Cleaned and used in the construction stage	Crushing Plant / or return to supplier	
Excavation material	5 m3	Cut and Fill	n/a	n/a
Green Waste	2 m3			Taken as fire wood "Benedict's" in Riverside Road, Moorebank
Tiles	1 m3	Use as road Base during construction	n/a	To be tipped in

				"Benedict's" in Riverside Road, Moorebank
Concrete	2 m2	Use as road Base during construction	n/a	To be tipped in "Benedict's" in Riverside Road, Moorebank
Timber-Specify	5 m3- hardwood	Cut on-site and offered for fire wood		To be tipped local tip if not taken as fire wood "Benedict's" in Riverside Road, Moorebank
Plasterboard	5 m3			To be tipped in "Benedict's" in Riverside Road, Moorebank
Metals	5 m3		Sent to local metal recycler	

			"Benedict's" in Riverside Road, Moorebank	
Asbestos	n/a			
Other Waste	5 m3			Tipped in "Benedict's" in Riverside Road, Moorebank

3. Construction Phase

To ensure that resources are conserved and waste is processed responsibly by minimising waste generation and maximising recycling of materials.

To address the waste management procedures for the deconstruction and construction activities to be undertaken during the proposed development on 484-488 Bringelly Road, Austral

Materials Selection & Ordering

Selection of all materials will be undertaken by architectural designers;

Materials requirements are to be accurately calculated to minimize waste from over ordering;

Materials ordering process is to aim at minimisation of materials packaging;

Material Safety Data Sheets (MSDS) are to accompany all materials delivered to site, where required, to ensure that safe handling and storage procedures are implemented.

Materials On-Site		Destination		
		Reuse & Recycling		Disposal
Type of material	Estimated Volume in m3 or area in m2 or weight in tonne (t)	On-Site Specify how materials will be reused or recycled on-site	Off-Site Specify the contractor and recycling outlet	Specify the contractor and Landfill site
Bricks	10m3		Sent broken bricks to local brick recycling plant "Benedict's" in	

			Riverside Road, Moorebank	
Excavation material	100 m3	Used for cut and fill	n/a	n/a
Green Waste	50 m3	Used for cut and fill	n/a	n/a
Tiles	5m3	Use as road Base during construction	n/a	To be tipped in "Benedict's" in Riverside Road, Moorebank
Concrete	50m3		send to local concrete recycler "Benedict's" in Riverside Road, Moorebank	
Timber- Specify	10 m3- softwood	Cut on-site and offered for fire wood		To be tipped local tip if not taken as fire wood "Benedict's" in Riverside Road, Moorebank

Plasterboard	50 m2			To be tipped in local waste plant "Benedict's" in Riverside Road, Moorebank
Metals	10 m3		Sent to local metal recycler "Benedict's" in Riverside Road, Moorebank	
Asbestos	n/a			
Other Waste e.g. ceramic tiles, paint, plastic, PVC cardboard...	20 m3			Tipped in local waste plant "Benedict's" in Riverside Road, Moorebank

4. On-going Waste Management

The unit number and mixture of this development is:

Building A&B	Apartment Mix	Building C&D	Apartment Mix	
1 Bed	24	1 Bed	23	47
2 Bed	118	2 Bed	78	196
3 Bed	2	3 Bed	8	10
Total	144	Total	109	253

Waste audit and management strategies are recommended for new developments to provide support for the building design and promote strong sustainability outcomes for the building. All recommended waste management plans will comply with council codes and any applicable statutory requirements. The waste management plan has three key objectives:

- Ensure waste is managed to reduce the amount of waste and recyclables to land fill by assisting residents to segregate appropriate materials that can be recycled; displaying signage to remind and encouraging recycling practices; and through placement of recycling and waste bins in the retail precinct to reinforce these messages.

- Recover, reuse and recycle generated waste wherever possible.
- Compliance with all relevant codes and policies.

To assist in providing clean and well-segregated waste material, it is essential that this waste management plan is integral into the overall management of the building and clearly communicated to residents and tenants.

The waste to be collected on site are:

- Garbage: all domestic waste (except recyclables and green waste)
- Recycling: glass bottles and jars – PET, HDPE and PVC plastics; aluminium, aerosol and steel cans; milk and just cartons; soft drink, milk and shampoo containers; paper, cardboard, junk mail, newspapers and magazines.

Total number of bins provided

Building A & B

Units number: 144

General Waste: 120L / Unit/ Week = 17,280L
 8 x 1100 L bins (collected twice a week)

Recycling: 120L/ Unit/ Week = 17,280L
 8 x 1100 L bins (collected twice a week)

Buildings C & D

Units number: 109

General Waste: 120L / Unit/ Week = 13,080L
 6 x 1100 L bins (collected twice a week)

Recycling: 120L/ Unit/ Week = 13,080L
 6 x 1100 L bins (collected twice a week)

The bin storage has been provided for each block in the basement level. The block A & B each has 8 * 1100L bins in the waste collection rooms, which 4 of those are for general waste and the other 4 are for recycle. While

the block C & D each has 6 * 1100L bins in the waste collection rooms, which 3 of those are for general waste and the other 3 are for recycle. These bins are located on the accessible rooms for collecting the waste, and during the collection day, they will be moved to the bin storage waiting for collection which occurs twice a week.

2 Separated bulky waste rooms are provided in the bin storage room. Block A & B can share one of them and Block C & D can share the other.

The waste collection points for each lot are on the ground floor, adjacent to the driveway. The loading dock are designed for 9 meters long, up to 4.5 meters height waste collection truck.

The building manager/caretaker is responsible for Garbage room signage. Appropriate signage must be prominently displayed on walls and above all bins, clearly stating what type of Garbage or recyclables is to be placed in the bin underneath. (See Appendix – Signage communal Garbage rooms)

6. Conclusion & Limitation

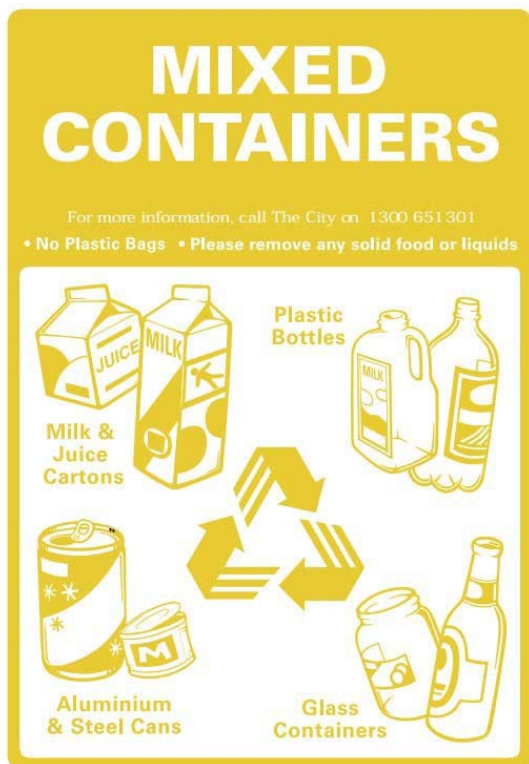
The purpose of this report is to document a Garbage Management Plan as part of a development application and is supplied with the following conditions:

- Drawings are for application only, not approved or for construction.
- The figures presented in the report are an estimate only. The actual amount of Garbage generated will be dependent on the occupancy rate of the building/s and Garbage generation intensity as well as the building managements approach to Garbage management.
- The building manager will make adjustments as required based on actual Garbage volumes (if Garbage is greater than estimated) and increase the number of bins and collections accordingly.
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures.
- Any manual handling equipment should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply.

Dreamscapes Architects

25th June 2017

Appendix 1 Signage



Appendix 2 Indicative Bin Size

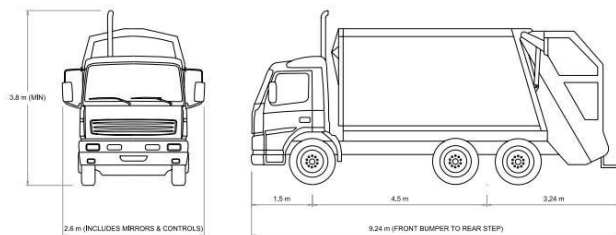
Wheelie Bins



Steel Bins



Appendix 3 Indicative Truck Size



Rear loading collection vehicle for MGBs

Length overall	9.54 m
Width overall	2.6 m
Operational height	4 m
Travel height	3.8 m
Weight (payload)	26 tonnes

Vehicle Specifications and Bin Safety

Consider the following dimensions to ensure the Front Lift system is the right one for you:

Vehicle clearance (height).....	3.8 metres
Vehicle clearance (width).....	2.5 metres
Vehicle clearance (length).....	10.0 metres
Vehicle height in operation.....	5.5 metres
Vehicle turning circle.....	22.1 metres

