



Appendix F

Waste Management Plan

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Waste Management Plan

Site Address: 29 Browns Road Clayton

Prepared for Nanxin Investment Browns Road Pty Ltd

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Date: 21st August 2015

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1. INTRODUCTION

Wastech Services Pty Ltd was commissioned by Nanxin Investment Browns Road Pty Ltd to prepare a waste and recycling plan associated with a proposed development consisting of the following:

- Eighty (80) two and three storey townhouses
- One hundred and seventy six (176) apartments

The development is to be located at 29 Browns Road Clayton.

1.1 Conditions

This waste management plan is based on the following conditions

- On-going use of the premises. Does not include demolition or construction stages
- Figures and calculations are based on drawings and information supplied by Mushan Design Studios
- Waste volume figures are estimates only and will be influenced by the tenant, resident and/or the operator's disposition toward waste disposal and recycling, and by the development's occupancy rate. Refer to the enclosed tables for rates and assumptions.

The recommendations, estimates and plan contained in this Waste Management Plan (Plan) have been prepared by analysing information, guidelines, documents and regulations provided by you and third parties, including local government and council bodies (Information). Wastech Engineering does not verify the accuracy of the Information and you acknowledge that the Information, and assumptions based on the Information within the Plan, is outside the control and knowledge of Wastech Engineering.

Wastech Engineering has prepared the Plan with due care and skill. However, no assurance or representation is made that the Plan reflects a guaranteed outcome and Wastech Engineering will not be liable to you for Plans or outcomes that are not suitable for your purpose, whether as a result of incorrect or unsuitable Information or otherwise. Except as specifically stated, no warranty or representation of accuracy or reliability in respect of the Plan is given by Wastech Engineering.



2. WASTE STORAGE

Each townhouse dwelling will be provided with an area of 1.5m² for the storage of waste bins within their property, the area required and provided for each residence is detailed in the table below;

Townhouse Waste Storage				
Bin Type	Length (mm)	Width (mm)	Quantity	Area (m ²)
120 Litre Garbage	480	550	1	0.26
240 Litre Commingled	585	730	1	0.44
240 Litre Garden	585	730	1	0.44
Total Area Required				1.14
Total Area Provided				1.50

Table 1: Townhouse Waste Storage

Each apartment block will have a bin room with the areas detail in the table below.

Apartment Bin Rooms				
Bin Type	Length (mm)	Width (mm)	Quantity	Area (m ²)
660 Litre Garbage	1370	850	3	3.49
660 Litre Commingled	1370	850	3	3.49
Total Area Required				7.00
Total Area Provided				15.00

Table 2: Apartment Waste Storage

3. GENERATED WASTE ESTIMATE

The enclosed waste estimates are summarized as follows in the tables below; refer to the enclosed waste generation calculations in the Appendix for further detail. Commingled recycling incorporates Glass, HDPE and PET containers, paper and cardboard.

Residential Waste	Garbage	Commingled Recycling	Garden Waste
Town Houses	9.60	9.60	9.60
Apartments	14.08	7.04	--
Total (m³/week)	23.68	16.64	9.60
Disposal Bin Size	120/660 Litre	240/660 Litre	240 Litre

Table 3: Residential Waste Estimate

4. RESIDENTIAL WASTE MANAGEMENT

4.1 Waste Streams

Residential waste shall be sorted on-site by the residents into the following streams and associated bins:

- Garbage; and
- Recycling (Glass, PET, aluminium, steel, HDPE, and Paper/Cardboard)
- Garden (for townhouses only)

4.2 Residential Garbage Disposal

Residential townhouses and apartments shall be furnished with plastic lined storage bins, with a minimum capacity of 15 litres, for the temporary holding of garbage waste. Residents of townhouses shall dispose of bagged garbage, as required, into their 120 litre garbage bin allocated for their residence and kept within their property.

Residents of apartments shall dispose of bagged garbage into the garbage chute located opposite each lift core. The chutes, three in total, shall serve all apartment levels and discharge into a 660 litre bin located in the bin room at basement level 1. The building manager will exchange bins underneath the chutes with a clean empty bin as required.

4.3 Residential Recyclable Disposal

Residential townhouses and apartments shall be furnished with storage bins, with a minimum capacity of 10 litres, for the temporary holding of recyclable waste. Residents of townhouses will dispose of recyclables, as required, into the 240 litre recycling bin allocated for their residence and kept within their property. Containers are to be rinsed and cardboard flattened prior to disposal. Organic waste generated by landscaped areas (such as grass clippings, branches, scrubs etc.) will be disposed of into a separate 240 litre garden waste bin.

Residents of apartments shall dispose of recycling into the recycling chute located next to each garbage chute. The chutes, three in total, will serve all apartment levels and discharge into a 660 litre bin located in the bin room at basement level 1. The building manager will exchange bins underneath the chutes with a clean empty bin as required. Any oversized cardboard should be disposed of directly into the recycling bins.

4.4 Residential Garbage and Recyclable Collection

4.4.1 Townhouses

Residents will be responsible for moving and returning their own 120 and 240 litre bins from their storage areas within their property to specified collection zones (as shown in the appendix). Collections will occur once a week for garbage and alternating fortnightly collections for recycling and garden waste. All collections are to be performed by a private contractor using a medium or small rigid rear lift vehicle.

4.4.2 Apartments

The building manager will be responsible for transferring full apartment bins for collection from each bin room, move them via the entry ramp and presenting them in specified collection points, as shown in the appendix before returning the bins to their original location once collections have been completed.

The collection of waste and recycling bins is to be performed by a private contractor using a small or medium rigid rear loading vehicle. Garbage collection are to occur up four times a week, recycling collections are to occur up to twice a week.

4.4.3 Townhouses (85 Moriah St)

Residents of townhouses facing Moriah Street shall move their own 120 litre and 240 litre bins from the storage points within their property to the kerbside on the evening prior to the day of collection.

Bins are to be placed no further than 0.5m from the street kerb with a minimum distance of 0.2m between each bin. The placement of bins under trees, street lights, behind parked cars or with bin wheels' facing the road is to be avoided and may prevent bin collection. Collections will occur once a week for garbage and alternating fortnightly collections for recycling and garden waste. Collection will be performed by the City of Monash (pending council approval). If council is unable to perform collection; a private contractor will be engaged.

5. RESIDENTIAL WASTE CALCULATIONS

5.1 Townhouses

Garbage		
Weekly Garbage Volume (Uncompacted)	9.60	Cubic metres
Bin Type	120	Litres
Frequency of Collection	1	Per week
Bins Required for Collection	80	
Spare Bins Required	0	
Garbage Bins Required	80	

Table 4: Garbage Summary

Recycling		
Weekly Recycling Volume	9.60	Cubic metres
Bin Type	240	Litres
Frequency of Collection	1	Per fortnight
Bins Required for Collection	80	
Spare Bins Required	0	
Recycling Bins Required	80	

Table 5: Recycling Summary

Garden Waste		
Weekly Garden Volume	9.60	Cubic metres
Bin Type	240	Litres
Frequency of Collection	1	Per fortnight
Bins Required for Collection	80	
Spare Bins Required	0	
Garden Bins Required	80	

Table 6: Garden Summary

5.2 Apartments

Garbage		
Weekly Garbage Volume (Uncompacted)	14.08	Cubic metres
Bin Type	660	Litres
Frequency of Collection	4	Per week
Bins Required for Collection	6	
Spare Bins Required	3	
Garbage Bins Required	9	

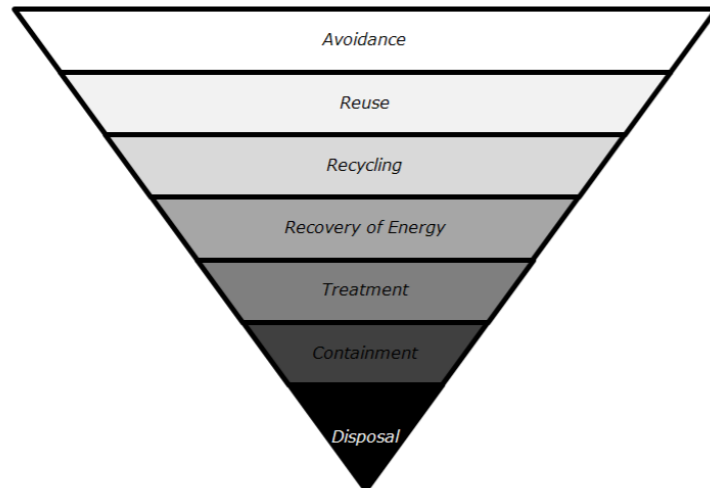
Table 7: Garbage Summary

Recycling		
Weekly Recycling Volume	7.04	Cubic metres
Bin Type	660	Litres
Frequency of Collection	2	Per week
Bins Required for Collection	6	
Spare Bins Required	3	
Recycling Bins Required	9	

Table 8: Recycling Summary

6. WASTE MINIMIZATION STRATEGIES

Each resident/occupier will be responsible for familiarising themselves with the practices of waste reduction/minimisation to divert waste from landfill. This will be achieved by the following:



- Document and distribute details of the waste management system that is in place on site to all residents
- Distribution of notices to all residents and tenants encouraging waste separation
- All bins to be labelled and colour coded stating types of waste that can be deposited i.e. paper/cardboard bins, container recycling bins, garbage bins

7. RECOMMENDATIONS AND ADDITIONAL INFORMATION

Items unsuitable for disposal via garbage or recycling bins would need to be disposed with the assistance of an appropriate contractor nominated by each residence/tenant/occupant. This would include: large, heavy, and liquid waste items.

To minimise security, vandalism, odour/visual impact, and health/safety issues, the following shall be implemented:

Transferring waste and shifting bins shall require the minimum possible manual handling. The operator will assess manual handling risks as per regulatory requirements and provide appropriate documentation to each resident/occupant/tenant.

- Signage and usage labels for the garbage and recycling bins will be provided by the operator;
- Waste areas will be secure and vermin proof;
- Residents shall keep waste areas clean and keep bins clean, keep bin lids closed and wash bins regularly;

Extract of Section 5 Victoria Noise Control Guidelines

The main annoyance produced by domestic refuse collections occurs in the early morning (in other words, before 7 am). Therefore, if possible, routes should be selected to provide the least impact on residential areas during that time. Collection of refuse should follow the following criteria:

- Collections occurring once a week should be restricted to the hours 6 am — 6 pm Monday to Saturday
- Collections occurring more than once a week should be restricted to the hours 7 am — 6 pm Monday to Saturday
- Compaction should only be carried out while on the move.
- Bottles should not be broken up at the point of collection.
- Routes that service entirely residential areas should be altered regularly to reduce early morning disturbance.
- Noisy verbal communication between operators should be avoided where possible.

8. CONTACT INFORMATION

Wastech Services Pty. Ltd.

Waste Equipment Designer & Manufacturer
33 Wedgewood Road, Hallam VIC 3803
Ph 03 8787 1600
wmp@wastech.com.au

Monash City Council

293 Springvale Road, Glen Waverley
(03) 9518 3555
mail@monash.vic.gov.au

SITA Environmental Solutions

(private waste collector)
64-84 Waterview Close, Hampton Park, VIC 3976
Ph 8795 2000

VISY Waste Management Integrated Solutions

(private waste collector)
Lot 2, 46-48 Dohertys Road, Laverton, VIC 3025
Tel: 03 9369 7477

Veolia Environmental Services (private waste collector)

Level 1, 85 Buckhurst St, South Melbourne VIC 3205
Ph 132 955

JJ Richards & Sons Pty Ltd

(private waste collector)
50 Elliott Road, Dandenong, VIC, 3175
Ph 9794 5722

APPENDIX I: WASTE ESTIMATES

No. OF TOWNHOUSES	80		
Garbage (m ³ /week uncompacted):	9.60	(Rate/townhouse/week)	0.120
Commingled Recycling. (m ³ /week uncompacted):	9.60	(Rate/townhouse/week)	0.120
Garden Waste. (m ³ /week uncompacted):	9.60	(Rate/townhouse/week)	0.120
TOTAL RESIDENTIAL TOWNHOUSE WASTE			
Garbage (m³/week uncompacted):	9.60		
Commingled Recycling (m³/week uncompacted):	9.60		
Garden Waste. (m³/week uncompacted):	9.60		

No. OF APARTMENTS	176		
Garbage (m ³ /week uncompacted):	14.08	(Rate/townhouse/week)	0.080
Commingled Recycling. (m ³ /week uncompacted):	7.04	(Rate/townhouse/week)	0.040
TOTAL RESIDENTIAL TOWNHOUSE WASTE			
Garbage (m³/week uncompacted):	14.08		
Commingled Recycling (m³/week uncompacted):	7.04		

APPENDIX II: COLLECTION POINTS

