

25 August 2017



PLANNING DEVELOPMENT PROPERTY

KDC PTY LTD	ABN 61 148 085 492
PHONE	(02) 4940 0442
EMAIL	admin@kobydc.com.au
WEBSITE	www.kobydc.com.au
ADDRESS	Suite 2B, 125 Bull Street Newcastle West NSW 2302

WASTE MANAGEMENT PLAN

Project: Mixed Use Development (3 commercial premises & 76 residential apartments)

Address: 990 Hunter Street, Newcastle West 2300

1 Introduction

This waste management plan pertains to the proposed mixed use development at 990 Hunter Street, Newcastle West NSW 2300. This waste management plan addresses all phases of the proposed development, including demolition, excavation and construction and ongoing management of waste for the building.

The proposed development consists of demolition of existing structures on site, and construction of a new building having twelve storeys and one basement level, providing for:

- Three x Ground level commercial premises;
- 76 x Residential Apartments (apartment mix provided below).

Table 1 – Residential Apartment Mix

	No. of Apartments
Studio / 1 bedroom	34
2 bedroom	33
3-4 bedroom	9

Table 2 – Commercial Unit Mix

	GFA
Premises 1	96 sqm
Premises 2	106 sqm
Premises 3	184 sqm

2 Waste Management Objectives

In accordance with Newcastle Council DCP 2012 and Technical Manual for Waste Management, the overall objectives for management and minimisation of waste within the proposed development are:

- 1. To facilitate sustainable waste management within the local government area in an environmentally sustainable manner.*
- 2. To ensure waste is transported and disposed of in a lawful manner.*
- 3. Minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.*
- 4. Minimise demolition waste by promoting adaptability in building design and focussing upon end of life deconstruction.*
- 5. Encourage building designs, construction and demolition techniques which minimise waste generation.*
- 6. Maximise reuse and recycling of household waste and industrial/commercial waste.*
- 7. Ensure waste management systems are compatible with collection services.*
- 8. Minimise risks associated with waste management at all stages of development.*

3 Demolition and Construction Phase

Objectives:

- 1. Optimising adaptive reuse opportunities of existing building/structures.*
- 2. Maximise reuse and recycling of materials.*
- 3. Minimise waste generation.*
- 4. Ensure appropriate storage and collection of waste.*
- 5. Minimise the environmental impacts associated with waste management.*
- 6. Avoid illegal dumping.*
- 7. Promote improved project management.*

Demolition

The management of waste on site during demolition / construction shall incorporate the recommendations of the Site Investigation Report provided with the proposal at Appendix H. This is to ensure that any asbestos-containing material encountered on site is appropriately and legally managed.

Table 3 - Demolition Phase Waste

Type of waste generated	Estimated Volume in m ³ or area m ² or weight in tonne (t)	Reuse and Recycling		Disposal
		On-Site	Off-Site	
Garden waste (3 trees)	250 tonnes	Chipped and stored for reuse in landscaping where possible.	Remainder sent to green waste facility for compost/re-use or Summerhill.	
Glass	1 tonne	-	Sent to local glass recycler or Summerhill	
Bricks	60 tonne	Reuse in		The surplus disposed of at Summerhill waste facility by contractor
Timber	2 tonne	Reuse for formwork and chips for landscaping.	Remainder disposed of at Summerhill waste recycling facility by contractor	
Concrete	100 tonnes		Unused disposed of at local concrete recycling facility by contractor	Concrush, Racecourse Rd, Teralba
Metal	2 tonnes	-	Sent to local metal recycler	Hunter Recyclers 8 Gross St, Carrington
Excavated material including soil, rock.	3,000 m ³		Take off site for reuse as clean fill elsewhere.	Summerhill Waste Facility by contractor
Any contaminated or asbestos-containing excavated material	Unknown volume			Managed and disposed of at licensed facility in accordance with the Site Investigation Report by Parsons Brinckerhoff (submitted with DA).

Notes

1. Details of the exact quantities to be confirmed upon detailed site investigation during Construction Certificate process.
2. The site contractor, prior to commencement of any works, will erect a suitable 1.8 metre high fence on the site to encircle the work area.
3. The site will be closed during the demolition phase.

The existing site access shall be maintained for construction vehicle access; with secondary access available at the north-eastern corner of the site. As the development involves almost 100% site coverage at ground level, construction waste must be managed efficiently daily, within the ground floor carpark area. As indicated on the civil plans, appropriate sediment and erosion control measures shall be installed on site and a suitable all-weather construction vehicle access provided.

In accordance with the Newcastle City Council Technical Manual for Waste Management, the following practices shall be employed to minimise waste during the demolition and construction phase of the development:

- Demolition shall be undertaken in a de-construction manner to ensure maximum re-use and recycling of materials.
- An allocated area for waste storage on site separated for the purposes of reuse, recycling and disposal. Waste storage areas to be suitably covered and contained.
- Bulk waste storage bins to be located within the site wherever possible, or alternatively seek approval from Council to position the container within the road reserve.
- Arrange contractors for the transport, processing and disposal of waste and recycling. Ensure that all contractors are aware of the legal requirements for disposing of waste. Contractors shall be employed to remove waste from the site regularly.
- 'During construction phase, delivery of materials 'as needed' to prevent the degradation of materials through weathering and moisture damage, and consider organising to return excess materials to the supplier or manufacturer.
- Clearly signpost the purpose and content of all bins and storage areas on site.
- Retain all records demonstrating lawful disposal of waste and keep them readily accessible for inspection by regulatory authorities such as Council, DECC or NSW WorkCover Authority.

The likely generation of waste during construction is summarised in the table below, using approximate figures.

Table 4 - Construction Phase Waste

Type of waste generated	Estimates Volume in m ³ or weight in tonne	Reuse and Recycling		Disposal
		On-Site	Off-Site	
Glass (windows, mirrors, lights)	<1/2 tonne		Local recycling facility, Summerhill.	
Timbers	2 tonnes		Local recycling facility, Summerhill.	
Metals / masonry / concrete	1 tonne		Local recycling facility. Hunter Recyclers: 8 Gross St, Carrington and Concrush: Racecourse Rd, Teralba	
Gardening waste (including external timber element waste/offcuts and)	1 tonne		Local green waste facility or Summerhill Facility.	
Plasterboard	5 tonnes			Unused disposed of at Summerhill

(offcuts)				Waste Facility by contractor
Fixtures and fittings	Nil (pre-ordered)		N/A	N/A
Packaging (including used pallets, pallet wrap, cardboards)	2 tonnes		Pallets reused where possible	Unused quantity disposed of at Summerhill Waste Facility by contractor
Other waste e.g. pvc plastics, paints.	2 tonnes	-		Disposed of at Summerhill Waste Facility by contractor

Notes

1. Location of demolition and construction waste facilities to be confirmed upon engagement of site contractor and tendering process.
2. The site will be closed during the construction phase.

4 Operational Phase

Objectives

1. *Encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.*
3. *Ensure appropriate resourcing of waste management systems, including servicing.*
4. *Minimise risk to health and safety associated with handling and disposal of waste and recycled material, and ensure optimum hygiene.*
5. *Minimise adverse environmental impacts associated with waste management.*
6. *Discourage illegal dumping by providing on site storage, and removal services.*

4.1 Generation of Waste

Typical waste generation rates are provided in Appendix B of the Newcastle Council Waste Management Technical Manual, derived from Waverley Council rates. Non-food retail is included in the Technical Manual, and the rates applied to non-food retail premises are in the Technical Manual than the rates within the EPA Guidelines.

Rates for multi-unit housing are not specified within the Newcastle Council Waste Management Technical Manual. The NSW *EPA Better Practice Guide for Waste Management in Multi Unit Dwellings 2008* has therefore been used as a reference guide for the waste generation of the proposed residential units.

The generation of waste from the proposed development is summarised in the following table:

Table 5 – Ongoing Waste Generation

Component	Attributes	Applicable Rate*	Total Waste Generation	Total Recyclable Waste Generation
Commercial/ Retail	386m ² GFA	40L waste /100m ² /day + 50L recyclables /100m ² /day	1,081 Litres/week (7days trading)	1,351 Litres/week (7days trading)
Residential Dwellings	76 Units	80L waste/unit/wk + 40L recyclables /unit/wk	6,080 Litres/week	3,040 Litres/week

Notes

* Based on the EPA Better Practice Guide for Waste Management in Multi-Unit Dwellings, 2008 and EPA Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities.

To cater for this waste:

2 x 1100L recycling bins and 2 x 1100L general waste bins shall be supplied for the Commercial Premises. These bins shall be serviced weekly.

3 x 1100L recycling bins and 6 x 1100L general waste bins shall be supplied for the Apartments. These bins shall be serviced twice weekly.

4.2 Waste Management System

The Newcastle City Council Technical Manual for Waste Management recognises that various waste management systems may be incorporated; dependent upon the scale nature and design of development proposed. The matrix of appropriate waste management systems identified that a 'waste recycling facility in a public area' is the only non-suitable waste management facility for multi-unit housing development.

The proposed waste management system for this development comprises a waste storage room within the ground floor of the building, sufficient in size to accommodate the required number and size of bins for the commercial and residential components of the development. The proposed plans clearly illustrate the location and size of the room. Waste shall be taken to the communal waste bins by residents / commercial occupants. Building management shall manually transport these bins direct to and from the kerbside for collection.

4.3 Waste Management Practices

As per the proposed plans, residents shall be responsible for taking their individual rubbish and recyclables to the ground floor waste storage room. Waste and recycling bins shall be clearly identified with signage to facilitate appropriate waste handling and placement in correct bins. The waste storage rooms have been designed to accommodate all the bins required; and to allow sufficient room to clean and safely manoeuvre bins.

General and Recyclable Waste

All residents will be supplied with a collection area in each unit (generally in the kitchen, under bench or similar alternate area) to deposit waste and collect recyclable material suitable for one day's storage.

It is expected that residents will place clean recyclables into the collection bins; and bag their general waste before depositing into the communal bins in the waste storage room.

Part of the strata manager's / cleaner's duty will be to manage regular cleaning and maintenance checks of the waste storage room, and to manually transport the bins from the storage room to the collection point promptly.

Green Waste

There will be minimal green waste generated by the building. Any green waste will be collected and removed from site by the landscaping / maintenance contractor. A small vehicle such as ute with or without trailer capable of being used to manage green waste.

Composting

It is anticipated that residents may purchase individual compost systems and manage these individually, if inclined.

Bulky Waste Items

The building design incorporates sufficient area for temporary storage of unwanted bulky waste items, in the waste room. Such items shall be collected by private contractor or kerbside collection vehicle.

Waste Storage Rooms

The waste storage rooms will be required to contain the following facilities to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area:

- Waste room floor to be sealed
- Waste room walls and floor surface flat and even
- All corners coved and sealed 100mm up, this is to eliminate build-up of dirt
- Appropriate taps installed for wash-down
- Discharge to sewer
- Well lit
- Conform to the Building Code of Australia and Australian Standards
- Appropriate signage to clearly state what type of waste or recycling is to be placed in each bin
- Appropriate mechanical ventilation

4.4 Waste Collection / Servicing

As per the traffic report provided by SECA Solution Pty Ltd the kerbside collection point is on the same level as the waste storage rooms. The waste storage rooms are directly accessible to the front of the site, where bins shall be manually transported to the kerbside for collection. This enables safe and manageable transportation of bins to and from the collection point on the kerb.

1100L bins to be wheeled in position for a front/rear loading waste collection vehicle.

All bins must be collected from the designated collection point, as illustrated on the plans at the kerb. There is sufficient kerb length available for the temporary storage and collection of the bins from the kerbside along the front boundary, without conflicting with vehicle or pedestrian access, or the public footpath, awning or trees, or traffic along Hunter Street.

Based on the waste generated by the proposed development, servicing shall occur twice per week for the residential waste and once weekly for the commercial waste.

5 Conclusion

This Waste Management Plan has been prepared in accordance with Newcastle Council's Waste Management DCP provisions and Technical Manual for Waste Management; having considered the NSW EPA Better Practice Guidelines for commercial development and multi-unit dwellings, respectively. The development incorporates suitable management systems and practices to ensure that waste is appropriately and safely managed within the development, and safely and efficiently serviced.

The proposal has been carefully designed to minimise waste during demolition and construction phases; and to ensure functionality and practicality in the ongoing management of waste generated by the development, with minimal impact on the public domain.

Yours sincerely,



Samuel Newman
Town Planner
KDC Pty Ltd