

# WASTE MANAGEMENT PLAN

PROJECT New Mixed-use Development  
 ADDRESS 1 Bilambee Avenue, Bilgola Plateau, NSW 2107 (Lot 5/DP 229309)  
 COUNCIL Northern Beaches Council  
 DATE September 2020

**BENSON  
McCORMACK  
ARCHITECTURE**



## DEMOLITION STAGE

MATERIALS	SOURCE	EST. Vol (m <sup>3</sup> )	QTY Area (m <sup>2</sup> ) Wt (t)	ON SITE RECYCLING	OFF SITE RECYCLING	OFF SITE DISPOSAL
Green Waste		3.0		All small branches and leaves chipped for mulch	Mulch to garden recyclers. Large trunks recycled for timber salvage	To Waste Transfer Station or garden centre that recycles green waste/timber
Bricks		22.1		Full bricks retained and set aside for re-use in new development	Broken bricks stored for collection to crushing	To Waste Transfer Station that recycles building waste
Concrete Blocks		0.0		Full blocks retained and set aside for re-use	Broken blocks sent to collection for crushing to road base at waste transfer station	To Waste Transfer Station that recycles building waste
Concrete		176.7		Nil. Temporarily stored for collection	Slabs/footings broken up on site and stored for collection/crushing	To Waste Transfer Station that recycles building waste
Timber Framing		0.0		De-nail useful pieces and set aside for re-use	Unused larger piece s recycled for timber salvage	To Waste Transfer Station for land fill
Timber Cladding		0.0		De-nail useful pieces and set aside for re-use. Timber flooring removed and temporarily stored for re-use	Unused larger piece s recycled for timber salvage	To Waste Transfer Station for land fill
FC Cladding		1.2		Nil. Temporarily stored for collection	Material broken on site and stored separately for collection to crushing	To Waste Transfer Station that recycles FC building waste
Asbestos Sheet		TBD		Nil. Temporarily stored in accordance with AS, for collection/disposal	Nil.	Removal in accordance with WorkCover requirements to land fill site
Plaster/ Plasterboard		0.9		Nil. Temporarily stored for collection	Binned separately for recycling by Boral Plasterboard	Nil
Roofing: Tiles		0.0		Full tiles set aside for re-use	Broken tiles set aside for collection to crushing to road base at Waste Transfer Station	To Waste Transfer Station that recycles building waste
Roofing: Steel		7.6		Nil. Temporarily stored for collection	Nonferrous metals binned separately for recycling	Nil
Insulation		29.6		Nil. Temporarily stored for collection	Nil	To Waste Transfer Station that recycles building waste




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Metal Piping etc	1.5	Nil	Nonferrous metals binned separately for recycling	
PVC Piping	2.0	Nil	Nil	Removal to land fill
Tiles and Pavers	0.0	Full tiles set aside for re-use	Broken tiles stored for collection to crushing to road base at Waste Transfer Station	To Waste Transfer Station that recycles FC building waste
Other				



## EXCAVATION STAGE

MATERIALS	SOURCE	EST.	QTY		ON SITE RECYCLING	OFF SITE RECYCLING	OFF SITE DISPOSAL
		Vol (m <sup>3</sup> )	Area (m <sup>2</sup> )	Wt (ton)			
Top Soil		0.0			Top soil stored on site for re-use in landscaped gardens and fill		Balance sent to authorized land fill site
Sand/Clay/Shale		5,996.3			Sand/clay stored on site for use as backfill where volumes allow		Balance sent to authorized land fill site
Rock		0.0			Stored on site for re-use as backfill where volumes allow	Large sandstone blocks stored for collection to garden centre (VENOM only)	Small rocks to Waste Transfer Station for land fill



## CONSTRUCTION STAGE

MATERIALS	SOURCE	EST. Vol (m <sup>3</sup> )	QTY		ON SITE RECYCLING	OFF SITE RECYCLING	OFF SITE DISPOSAL
			Area (m <sup>2</sup> )	Wt (ton)			
Bricks		0.5			Off-cut bricks retained, crushed and used for drainage fill	Excess broken bricks stored for collection to crushing. Excess full bricks returned to supplier	Excess full bricks refunded/re-sold
Concrete Blocks		0.5			Off-cut blocks retained, crushed and used for drainage fill	Excess broken blocks stored for collection to crushing. Excess full blocks returned to supplier	Excess full blocks refunded/re-sold
Concrete		1.0			Excess concrete poured into moulds on site for garden pavers	Nil	Nil
Timber Framing		0.0			Useful pieces set aside for re-use	Unused large pieces recycled into store by builder or returned to supplier	Excess timber refunded/re-sold or used by builder on another construction site
Timber Cladding		0.0			Useful pieces set aside for re-use	Unused large pieces recycled into store by builder or returned to supplier	Excess timber refunded/re-sold or used by builder on another construction site
FC Cladding		0.2			Nil	Material broken on site and stored separately for collection to crushing. Excess portions returned to supplier	To Waste Transfer Station that recycles FC building waste or
Plasterboard		2.0			Nil	Binned separately for recycling by Boral Plasterboard	Excess cladding refunded/re-sold
Roofing: Tiles		0.0			Full tiles set aside for use as spares	Broken tiles set aside for collection to crushing to road base at Waste Transfer Station	Excess full sheets refunded/re-sold
Roofing: Steel		0.2			Nil	Smaller off-cuts of nonferrous metals binned separately for recycling. Larger and full sheets returned to supplier for re-sale/refund	To Waste Transfer Station that recycles building waste
Insulation		1.0			Nil	Un-used returned to manufacturer/store by builder	To Waste Transfer Station that recycles building waste
Metal Piping etc		0.1			Nil	Non ferrous metals binned separately	




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PVC Piping	0.8	Nil	for recycling	Removal to land fill site
Tiles and Pavers	2.0	Full tiles set aside for use as spares	Cut tiles stored for collection to crushing to road base at Waste Transfer Station	Nil
Misc. Packaging, Glues etc Other	5.0	Timber packaging sorted for re-use as above	Pallets returned to supplier to re-use	



## IN USE (ON-GOING MANAGEMENT OF WASTE)

### RESIDENTIAL

MATERIALS	SOURCE	EST. Vol (m <sup>3</sup> )	QTY Area (m <sup>2</sup> )	Wt (ton)	ON SITE RECYCLING	OFF SITE RECYCLING	OFF SITE DISPOSAL
General Waste		0.72/ week			Separate waste	Council's assigned site	Council's assigned site
Recyclable Waste		0.96/ week			Separate waste	Council's assigned site	Council's assigned site
Garden Waste		0.48/ week			Small branches and leaves chipped for mulch	Mulch to garden recyclers. Large trunks recycled for timber salvage	Council's assigned site

### RETAIL

MATERIALS	SOURCE	EST. Vol (m <sup>3</sup> )	QTY Area (m <sup>2</sup> )	Wt (ton)	ON SITE RECYCLING	OFF SITE RECYCLING	OFF SITE DISPOSAL
General Waste		6.72/ week			Separate waste	Waste Contractor's assigned site	Waste Contractor's assigned site
Recyclable Waste		4.48/ week			Separate waste	Waste Contractor's assigned site	Waste Contractor's assigned site



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### General Note

The Northern Beaches Council's Waste Management Guidelines has been considered in the preparation of this waste management plan.

General, Recycling, and Vegetation Waste can be disposed off by all residents into bins located within the assigned communal bin storage room (internal area measuring 12.9sqm), located on Level G. Standard sized 240 L General, Recycling and Vegetation Waste bins supplied by council shall be stored and maintained within the communal bin storage room for safe, convenient sorting and disposal. Hot and cold water taps will be provided within the communal bin storage room with floor waste for bin cleaning when required.

Required residential waste bin quantities are broken down as follows :

### Waste Generation Calculation (Residential)

(Calculations based on Northern Beaches Council's waste storage area requirements for developments of 3 or more dwellings, Appendix A of council's Waste Management Guidelines)

<u>Total Proposed Dwellings</u>	8
General Waste bins required	3
Paper bins required	2
Bottle bins required	2
Vegetation bins required	2
<b>Total waste bins required</b>	<b>9</b>

Resident waste bins will be moved between the communal bin storage room and Bilkurra Avenue waste collection point (total transit length of 9.3m) by the body corporate cleaning staff one day before collection day, and returned to the communal bin storage room after collection by council on the same day.

The maximum number of bins that will be located at the waste collection point during collection day will be nine (9) bins.  
Sufficient area has been allowed for to accommodate all nine bins without impeding pedestrian movement, as well as vehicular and resident movement from the development.

Council will collect residential General Waste, Recycling Waste and Vegetation Waste as determined suitable for the development, from Bilkurra Avenue.  
Distance of the waste collection point from the Bilkurra Avenue kerb is 5.6m



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Considering the maximum number of bins being collected by council's waste truck at any one time (being 3 bins), servicing timeframes will be short and will not cause extended delays to vehicular movement on Bilkurra Avenue.

A caged bulky waste storage area (internal area measuring 4m<sup>3</sup>) is provided within the communal bin storage room.





General and Recycling Waste can be disposed off by retail / commercial tenants into bins located within the assigned bin storage room (internal area measuring 10.2sqm and separate from the residential communal bin storage room), located on Level G. Standard sized 660 L General and Recycling Waste bins shall be stored and maintained within the bin storage room for safe, convenient sorting and disposal. Hot and cold water taps will be provided within the bin storage room with floor waste for bin cleaning when required.

Required retail waste bin quantities are broken down as follows :

**Waste Generation Calculation (Retail)**

(Calculations based on Northern Council's waste generation rate for Cafes, of 300 litres per 100m<sup>2</sup> per day (general waste) + 200 litres per 100m<sup>2</sup> per day (recycling) as well as for Retail (non-food), of 50 litres per 100m<sup>2</sup> per day (general waste) + 50 litres per 100m<sup>2</sup> per day (recycling))

**Retail A : Café**

General Waste calculation: Total Proposed Retail floor area : 321.5m<sup>2</sup>  
 = Multiply ( 321.5m<sup>2</sup> x 3 litres per m<sup>2</sup> per day ) = 964.5 litres per day  
 Assuming collection by Private Waste Contractor daily, total required General Waste bins = **2x (660 L) bins**

Recycled Waste calculation: Total Proposed Retail floor area : 321.5m<sup>2</sup>  
 = Multiply ( 321.5m<sup>2</sup> x 2 litres per m<sup>2</sup> per day ) = 643 litres per day  
 Assuming collection by Private Waste Contractor daily, total required Recycling Waste bins = **1x (660 L) bins**

**Retail B : Retail (non-food)**

General Waste calculation: Total Proposed Retail floor area : 119.5m<sup>2</sup>  
 = Multiply ( 119.5m<sup>2</sup> x 0.5 litres per m<sup>2</sup> per day ) = 59.8 litres per day / 418 litres per week  
 Assuming collection by Private Waste Contractor weekly, total required General Waste bins = **1x (660 L) bins**

Recycled Waste calculation: Total Proposed Retail floor area : 119.5m<sup>2</sup>  
 = Multiply ( 119.5m<sup>2</sup> x 0.5 litres per m<sup>2</sup> per day ) = 59.8 litres per day / 418.6 litres per week  
 Assuming collection by Private Waste Contractor weekly, total required Recycling Waste bins = **1x (660 L) bins**

Waste breakdown: Total retail waste bins required for proposed development = **5x (660 L) bins**



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Retail waste bins will be moved between the assigned bin storage room and Bilkurra Avenue kerbside collection point by retail staff one day before collection day, and returned to the bin storage room after collection on the same day.

Retail General and Recycling Waste will be collected by a private waste contractor, to be organized by the tenant.

Signage will be installed to identify and distinguish the Residential communal bin storage room from the Retail bin storage room, and access will be controlled via secure key card to avoid cross use of waste bins.