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Site Waste Management Plan

Proposal to demolish an existing building and construct a mixed use building with basement garage

Prepared for Urban Partners

21 Whistler Street
MANLY NSW

Report 2018/09035

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1 Introduction

This Site Waste Minimisation and Management Plan (SWMMP) Report has been prepared on behalf of the Urban Partners and should be read in conjunction with the plans encompassing Project No. : 21806 prepared by Wolski Coppin Architecture.

The report summarises the waste minimisation and management practices intended to be implemented as part of the construction of a multi-dwelling residential development and its operational use.

1.1 Summary

The proponent proposes to demolish an existing dwelling with associated light infrastructure and then construct a mixed commercial/residential multistorey building with related earthworks and landscaping.

This report is an outline of the waste minimisation and management policies and procedures to be implemented by contractors during the demolition phase, construction phase and the property manager/owners corporation during the post construction (operational phase) of the development.

These policies and procedures will set a framework for all parties to minimise generation of residual (non-recyclable) waste, and to take advantage of the opportunities for re-use of waste materials by ensuring that efficient recovery and segregation measures for all waste materials are provided.

2 Building Characteristics

2.1 Proposed building description

The proposed development comprises two ground floor commercial tenancies and eight residential units, basement garage, related earthworks and landscaping.

A summary of the proposed building is as follows:

- Two commercial tenancies;
- Five upper stories totalling eight residential units;
- Basement garage with associated plant rooms;
- Car lift and stacker;
- Earthworks and landscaping.

3 Purpose of the SWMMP

3.1 Aims

The aim of the SWMMP is to outline measures to minimise and manage waste and resource recovery during the demolition phase, construction phase and the post construction (operational) phase

The SWMMP will describe;

- Volume and type of waste and recyclables to be generated
- Storage and treatment of waste and recyclables on the development site
- Disposal of residual wastes and reprocessing options for recyclables
- Procedures for post construction (operational) management after handover of the development

3.2 Objectives

The objective of the SWMMP is to provide a planning system to effectively manage waste and resource recovery associated with this development, including;

- Promote improved project management
- Minimise waste generation
- Maximise reuse and resource recovery
- Minimise the environmental impacts associated with residual waste generated by this development
- Ensure the appropriate storage and collection of residual waste
- To ensure ongoing waste management systems are compatible with collection services offered by commercial waste transporters and the Northern Beaches Shire Council.

3.3 Legislative drivers

Table 1 - Environmental Legislation specific to waste management

Legislation/Guidelines	Description
Protection of the Environment Operations Act 1997	This Act is the primary NSW environment protection legislation covering air, noise, water, land and waste management
Waste Avoidance and Resource Recovery Act 2001	Sets NSW framework for waste hierarchy and allows the preparation of waste strategies addressing specific waste streams and setting landfill diversion and resource recovery targets
Waste Avoidance and Resource Recovery Strategy 2007	Proposes priority areas for waste management and resource recovery. Details current targets
Northern Beaches Shire Council: <i>Waste Management Plan</i>	Aims to facilitate sustainable waste management within the Northern Beaches Shire LGA in a manner consistent with ESD principles.
Model Waste Not DCP Chapter 2008 (DECC)	Provides a framework chapter for NSW LGA's to address Waste Not DCP
Better Practice Guide for Waste Management in Multi Unit Dwellings 2002 (Resource NSW)	Provides guideline for addressing waste management in medium or high density residential developments

4 Demolition Phase

4.1 General Outline

4.1.1 Introduction

The management of the site will be the responsibility of the project manager, who will administer waste handling systems, as specified by the Northern Beaches Shire Council, WorkSafe and as detailed in this report.

The demolition phase of this development is to comply with the aims and objectives outlined in Section 3 of this report.

The demolition phase involves the demolition of an existing dwelling with associated light infrastructure, site clearing, and excavation.

4.2 Waste Avoidance, Minimisation and Control Strategies

In relation to site clearance and excavation activities, specialised waste disposal & treatment contractors will be selected who are appropriately licenced, and have demonstrated experience in maximising resource recovery. The following control strategies will be implemented during the demolition phase;

- All demolition will be conducted in accordance with requirements of the WorkSafe Authority and Australian Standard 2601-1991 *The demolition of structures*
- Any asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with the WorkSafe Authority and Environmental Protection Authority
- Re-use excavated materials on-site and disposal of excess to an approved site
- All salvaged material will be removed manually; hydraulic excavators will remove the remainder
- Allocation of an assigned area within the development site to be identified for stockpiling of segregated recyclable materials (for materials to be re-used on-site) and for staging areas for transport to off-site re-processing facilities
- All skip and bulk bins will be located within the assigned area, clearly identified for each material, and not impeding on the footpath or road reserve
- Project manager to retain all weighbridge or re-processing facility dockets to ensure responsible disposal and recycling options are being employed by contractors
- All waste generated is to be documented and handled in accordance with Table 2 Demolition Volumes and Reuse/Recycling Potential
- At the excavation stage, the frontage to Whistler Street will be utilised as the site access. The excavated material, not used on site, will be loaded onto trucks and transported to an approved landfill site or another suitable location.

Table 2 - Demolition Volumes and Reuse/Recycling Potential

Materials	Document Volume (m³)	On-Site	Off-Site	Disposal
Hardwood	3	Separated	Sold for re-use	Second hand supplier
Other Timber	1	Separated	Chipping for mulch/fuel	Green waste re-processing facility
Doors, Windows	1	Separated	Sold for re-use	Second hand supplier
Steel	1	Nil	To metal recyclers	Metal recycling
Downpipes, Gutters	0	Nil	To metal recyclers	Metal recycling
Ceramic Tiles	0	Cleaned and separated	Sold for re-use	Recycling facility/second hand supplier
Green Waste	4	Composted or mulched	Nil	Green waste re-processing facility
Concrete	1	Re-used as sub-base / fill	Concrete crushing	Quarry or landfill licenced to crush concrete
Bricks	1	Broken brick for fill. Whole bricks to be cleaned and salvaged	Recycling company	Quarry or landfill licenced to crush bricks/masonry. Or Second hand supplier
Plasterboard	1	Separated	Recycling company	Licenced re-processing facility. Or return to supplier
General Waste	1	Nil	Nil	Licenced waste facility
Other Wastes	1	Separated	Nil	Licenced waste Facility

5 Construction Phase

5.1 General Outline

5.1.1 Introduction

The management of the site will be the responsibility of the project manager, who will administer waste handling systems, as specified by Northern Beaches Shire Council, WorkSafe and as detailed in this report.

The construction phase of this development is to comply with the aims and objectives outlined in Section 3 of this report.

The construction phase will involve the construction of a mixed residential/commercial building with basement garage and associated site works.

5.2 Waste Avoidance, Minimisation & Control Strategies

To reduce the amount of waste on site during construction of the development the following control strategies will be required of all contractors and/or personnel:

- Order materials to size
- Avoid over-ordering
- Order pre-cut or pre-fabricated materials
- Reduce packaging at source or products with minimal packaging
- Where possible materials to be re-used on site or shipped to recycler
- All salvaged material will be removed manually; hydraulic excavators will remove the remainder;
- Allocation of an assigned area within the development site to be identified for stockpiling of segregated recyclable materials (for materials to be re-used on-site) and for staging areas for transport to off-site re-processing facilities;
- All skip and bulk bins will be located within the assigned area, clearly identified for each material, and not impeding on the footpath or road reserve;
- Project manager to retain all weighbridge or re-processing facility dockets to ensure responsible disposal and recycling options are being employed by contractors;
- All waste generated is to be documented and handled in accordance with Table 3 Construction Volumes and Reuse/Recycling Potential

Table 3 - Construction Volumes and Reuse/Recycling Potential

Materials	Document Volume (m ³)	On-Site	Off-Site	Disposal
Hardwood	1	Separated	Sold for re-use	Second hand supplier
Other Timber	2	Separated	Chipping for mulch/fuel	Green waste re-processing facility
Doors, Windows	0	Separated	Sold for re-use	Second hand supplier
Steel	1	Nil	To metal recyclers	Metal recycling
Downpipes, Gutters	0.5	Nil	To metal recyclers	Metal recycling
Ceramic Tiles	0.5	Cleaned and separated	Sold for re-use	Recycling facility/second hand supplier
Green Waste	0	Composted or mulched	Nil	Green waste re-processing facility
Concrete	1	Re-used as sub-base / fill	Concrete crushing	Quarry or landfill licenced to crush concrete
Bricks	1	Broken brick for fill. Whole bricks to be cleaned and salvaged	Recycling company	Quarry or landfill licenced to crush bricks/masonry. Or Second hand supplier
Plasterboard	1	Separated	Recycling company	Licenced re-processing facility. Or return to supplier
General Waste	2	Nil	Nil	Licenced waste facility
Other Wastes	2	Separated	Nil	Licenced waste Facility

Note: During construction, all waste materials will be separated and temporarily stored on-site. It is proposed all such materials will either be recycled or disposed of as per Table 2 Demolition Volumes and Reuse/Recycling Potential.

6 Post Construction (operational) Phase

The following assessment of waste volumes is an estimate only and will be influenced by building management, cleaning arrangements, individual tenant's attitude and obligation regarding waste disposal and recycling.

6.1 Waste and recycling generation rates

Waste and recycling generation rates are taken from Northern Beaches Shire Council's *Pittwater Shire Council's Development Control Plan Chapter B8: Construction and Demolition – Waste Minimisation*.

Table 4 - Residential Generation Rates

Waste Type	Number of units	Waste generation rate	Waste generated	Frequency of Servicing per week	Bins Required
Garbage	8	80 L per week	640 L.week	Weekly	3 x 240L MGBs
Recyclables	8	40 L per week	320 L.week	Weekly	2 x 240L MGBs

Table 5 - Commercial Generation Rates

Waste Type	Type of Premises	Waste generation rate	Floor Area (m ²)	Waste Generated	Bins Required
Garbage	Retail	50L/100m ² /day	181	453 L	2 x 240L MGBs
Recyclables	Retail	25L/100m ² /day	181	227 L	1 x 240L MGBs

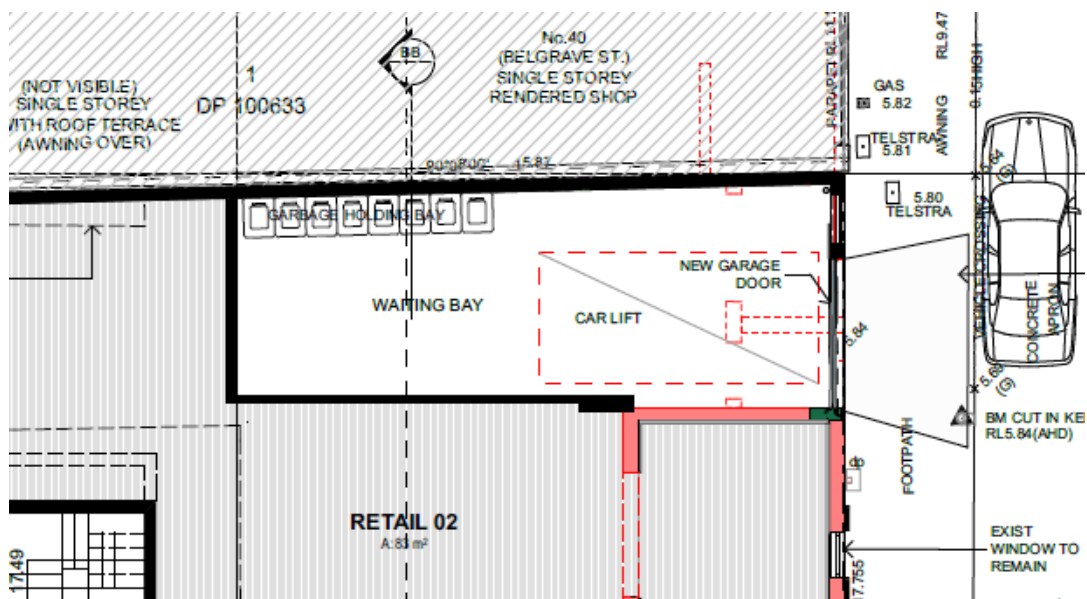


Figure 1 - Waste storage location

6.2 Storage

The storage of residential waste will be within a designated garbage and recycling area located within the basement garage.

A tap and drainage with connection to the sewer are to be provided within the garbage storage area. Hose cocks shall be protected or located so that they cannot be damaged. A hose of adequate length and fitted with a nozzle is to be connected to the hose cock to allow for adequate cleaning of the waste room and receptacles.

The size of the waste storage area will be sufficient to house the recommended number of mobile garbage bins for the development, as well as incorporating adequate clearance between each mobile garbage bin.

The minimum sizes for the proposed bins are identified in Appendix A.

The location of the garbage storage area has been designed to be easily accessible to the residents of the proposed units.

The garbage storage area will not affect the amenity of any adjacent properties and has been designed as an integrated part of the overall design.

Each dwelling will have space for an adequate number of greenwaste bins.

6.3 Servicing (collection)

It is intended that the waste and recycling will be collected on a weekly basis. The tenant will ensure that all bins are prepared and presented within an allocated kerbside service area, before 6:00am on service day.

The design of the development allows for the garbage and recyclables to be transported to the Waste collection point identified in the submitted plans, to allow for Northern Beaches Shire and/or their contractor for pick-up.

The development has been designed so as to allow Northern Beaches Shire Council or private contractor's waste management contractor to collect the garbage from the kerbside loading space without impacting on local traffic flow.

The tenants will ensure that the bins are removed from the kerbside and returned to the waste storage area as soon as practicable after Council or contractor's vehicles collect the waste.

6.4 Garbage transport

All residential waste generated by residents will be sorted into general waste and recycling, then dispose of them accordingly in the designated MGB.

The individual residents shall be responsible for ensuring the waste storage areas and related equipment are kept in a clean and working order.

The residents shall also ensure that the waste and recycling bins are provided in the waste collection point area on the relevant servicing days by the required times. Once serviced the bins are to be moved back to the respective garages.

Occupational health and safety of bin transfers must be considered for larger bins (e.g. ability to safely move a bin that may weigh more than the person trying to move it).

6.5 Bulky waste

The development will employ a dedicated caged area for residents to temporarily store unwanted bulky items until suitable disposal/transport options can be arranged.



Appendix A

Waste Management Equipment

Dimensions - Weights - Standards

■ Nominal volume:	240 litres
■ Net weight:	approx 13 kg
■ Max load:	96 kg
■ Permitted total weight:	110 kg

■ A	1060 mm	■ D	730 mm	■ G	550 mm
■ B	990mm	■ E	585 mm		
■ C	660 mm	■ F	400 mm		

Measurements to be used as a guide only – variations will occur

