



# **WASTE MINIMISATION AND MANAGEMENT PLAN**

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Prepared to accompany the Development Application submitted for the redevelopment of:  
**PROPOSED SHOP TOP HOUSING**  
**1102 Barrenjoey Road Palm Beach**

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# INTRODUCTION

The Applicant recognises the need to protect the environment and the advantages that can be achieved by considering ways of waste reduction, recycling, and a corresponding reduction in landfill during the planning stage of this project.

Particular waste management guidelines and/or procedures will be proposed for:

- Onsite; during the excavation and construction phases
- Ongoing; for the residential life of the project

The main objective of this plan is to reduce the amount of waste to be disposed of at landfill. Consideration has been given to the volumes and type of wastes to be generated (whether onsite or during occupancy) and provisions for waste facilities for storage and sorting for the possibility for reuse and or collection.

The ability to plan waste management may be restrictive under some circumstances due to storage capacity, nature of the waste and or its ability to be recycled or economic collection. However, it is envisaged that project goals can be achieved by co-operation of all parties associated with the project, for all those involved in the physical making of it as well as its future inhabitants.

# ONSITE WASTE MANAGEMENT

## 1.0 Management Statement

A more detailed waste management plan will be prepared, in coordination with the builder, for the Construction Certificate. This will also include a plan to indicate designated areas for stockpile materials, general waste and recycling.

The builder will instigate a plan for onsite waste management for this project with the guidelines as described hereafter.

## 2 Statement of Responsibilities

Detailed below are the responsibilities of the assigned participants who will be encompassed in the waste management plan for this project:

### 2.1 Demolition Contractor

All demolition work is to be carried out according to AS 2601-2001-Demolition of Structures. Where possible, demolition waste is to be sorted for reuse and recycling, all other waste shall be to be taken to appropriate waste management centers and/or landfill sites.

Examples of the type of demolition materials that can be re-used on site are:

- Timbers- reused in new works for formwork, temp bracing & propping, hoardings, garden bed edging and chip on site for landscaping
- Green waste- mulched and re used on site for landscaping
- Bricks- Clean and reuse in landscaping planters, fill behind retaining walls and hard fill under driveways & paths
- Concrete- crush for temporary driveways and fill behind retaining walls
- Timber windows, joinery & roof tiles- Sell to second hand building centres
- Plasterboard - break up and use in landscaping
- Sand- use under new concrete slabs & backfilling

### 2.2 Excavation Contractor

The excavation contractor is to ensure all excavated materials are sorted on site and stockpiled into recycled and non-recycled materials. Clean fill to be retained on site as required to be reused as backfill & for landscaped areas. Disposal of excess landfill is to be disposed of on approved landfill sites such as but not limited to Kimbriki Resource Recovery Centre or Rock & dirt recycle centres.

### 2.3 Project Planners

The project planners are those who foresee the need to instigate waste management on the project and are responsible for financial implications that may benefit or otherwise the project viability.

### 2.4 Project Manager

The project manager will instigate the waste management plan and will ensure all site personnel, material suppliers and subcontractors are aware of the project goals and are committed to those goals.

## **2.5 Site Supervisor**

The site supervisor is responsible for the on-site management of waste control, collection and sorting of specific recyclable materials and of other waste, the site supervisor will enforce the waste management procedure.

## **2.6 Subcontractors**

All subcontractors will be required to comply with waste control, collection and sorting be instigated on the project. Specific material that may not be collected on site will be removed from site by the subcontractor responsible for its generation and where possible recycled.

## **2.7 Material Suppliers**

Material suppliers will be instructed to restrict packaging to reduce excessive packaging and the extent of waste delivered to site.

- Timber Pallets to be returned to suppliers
- Excess materials to be returned to suppliers

## **2.8 Waste Collection Agency**

Waste collection agencies are responsible for provision of appropriate collection bins, signage of specific collection bins, removal and transport of the specific waste to the point of recycling or to the appropriate disposal area.

## **2.9 Recycling Agencies**

Recycling agencies are those organisations that are able to receive specifically sorted waste and recycle that material into new product

# **3 Waste Management Procedure**

## **3.1 Bin Supplier**

The waste management plan will call upon waste collection agencies to provide collection bins for the accumulation of sorted select waste materials and the removal and transportation of those bins to recycling agencies.

## **3.2 Garbage & Recycling Bins**

Sufficient areas will be provided for waste storage, sorting wastes and recyclables. Bins will be adequately sign posted as to the specific material to be deposited in each bin.

Individual bins shall be provided for the following materials on an as need basis, the following are suggested:

- Light Loads Category 1 – for light building materials such as timber, gyprock, plasterboard, plastics, metals, etc and domestic rubbish.
- Heavy Loads Category 2 – for heavy building materials/demolition materials, including bricks, tiles, concrete, soil etc.

- Bricks, Concrete and Tiles – for any combination of the above with the inclusion of no other rubbish.

All recyclable material from the above will be sorted, sieved and recycled at the bin/skip provider's premises.

### **3.3 Access**

All bins will be located on ground level for easy access and collection. Allocated areas may change during the process of demolition and construction, depending on the availability of space and locality of works.

Site access will be controlled ideally at one point and separate areas will be designated for delivery drop off and collection point, all to be clearly marked onsite and from the street.

### **3.4 Collection**

Waste collection vehicles will access the garbage area to collect bins on a need basis; this will vary during the demolition and construction stages.

### **3.5 Excessive Packaging**

The subcontractor or material supplier shall restrict packaging to the minimum necessary to protect the article from damage during transport and installation. Excessive packaging shall be removed from the site by the material supplier or the subcontractor. The method of disposal shall be confirmed with the Site Supervisor prior to removal.

### **3.6 Surplus Soils/Rock and Spoil**

Surplus soil/rock and spoil shall be directed from landfills wherever possible. Method of disposal shall be confirmed with the Site Supervisor prior to removal.

### **3.7 Contractual Responsibility**

Consistent with the objectives of the waste management plan, all contracts involved in the demolition and construction phase is suggested to have a waste management clause that will enable common project goals to be achieved.

All site personnel shall be responsible to deposit the appropriate material in the allocated bin. Incorrectly deposited material shall be sorted by the party responsible.

### **3.8 Site Restrictions**

The Builder will endeavour to ensure that the efficient management of access is carried out. Waste management practice must be upheld.

### **3.9 Deviations**

Any deviations from the proposed waste management plan shall be submitted to the Site Supervisor for approval. Such deviations must be assessed against the main objectives of the plan.

# ONGOING WASTE MANAGEMENT

## **4.0 Management Statement**

Provisions for waste facilities have been allocated throughout the project to assist the management of wastes generated on the subject site during its occupational life.

Building management will instigate a plan for ongoing waste management for this project with the guidelines as described hereafter.

## **5 Statement of Responsibilities**

Detailed below are the responsibilities of the participants who will be encompassed in the waste management plan for this project:

### **5.1 Building Management**

Building management will be responsible for providing and maintaining the ongoing waste management facilities and services at the subject site.

Building management will instigate the waste management plan and will ensure all participants are aware of the project goals, committed to those goals and know their contributing roles of the plan.

### **5.2 Caretaker**

Building management will assign caretakers to handle wastes in correspondence to Council's waste collection service for the proposed development. The caretaker's responsibilities include transferring bins from the common area to collection point, returning them thereafter and also managing the communal garbage area.

### **5.3 Tenants**

Tenants are responsible for the management of waste control within their own premises and in coordination with the routine garbage services/waste management contractor.

### **5.4 Commercial Tenants**

Commercial tenants on the ground level are responsible for the management of waste control within their own premises and in coordination with the routine garbage services/waste management contractor outlined in their own waste management plan to be provided under their development Application for the internal fitout.

## **6 Waste Management Procedure**

Waste and recycling areas as well as collection arrangements have been provided for residential activities in accordance with Council's objectives.

### **6.1 Garbage & Recycling Bins**

Waste & recycling goods will be manually transported from each apartment to the common bin storage at ground level by the residents.

Prominent signage will be provided within all designated waste handling areas, indicating correct use of bin.

The proposed method of waste handling will be as follows:

- a. The residents of the building will have facilities inside each apartment for the storage of at least two days' worth of waste and recycling.
- b. Daily or as appropriate they will be expected to take their waste/recycling into the garbage/recycling room located on the basement level.
- c. The bin storage will be checked by the cleaner/building manager.
- d. The cleaner/building manager will ensure that the bins are presented in a tidy manner and note overflowing ensuring easy collection

### **6.2 Collection**

Collection as per council requirements Waste will be collected by council's contractor's kerbside collection service on a weekly basis accessed from the street side bin storage area provided as required by council.

### **6.3 Contractual Responsibility**

Consistent with all the objectives and commitments of building management, a waste management clause may be included in tenancy agreements to enable common project goals to be achieved. Any mishandling of bins will be punished by building management.



Part A – Reuse, recycling or disposal of materials during demolition

	<i>Most favourable</i> Reuse	Recycling	<i>Least favourable</i> Disposal	
Type of waste generated	Estimated volume (m <sup>3</sup> ) or weight (t)	Estimated volume (m <sup>3</sup> ) or weight (t)	Estimated volume (m <sup>3</sup> ) or weight (t)	Specify method of onsite reuse, contractor and recycling outlet and/or waste depot to be used
Excavation material	3060m3			reuse / recycle for landscaping
Timber (specify)	20m3			reuse for onsite formwork
Concrete	50m3			to be crushed for road base
Bricks/pavers	15m3			recycle / reuse bricks for new masonry walls
Tiles	8m3			to be crushed for road base
Metal (specify)	5m3			remove to recycling outlet for reuse
				remove to recycling outlet
Furniture				
Fixtures and fittings				remove to recycling outlet
Floor coverings				contractor to arrange for disposal
Packaging (used pallets, pallet wrap)				
Garden organics	5m3			reuse for landscaping
Containers (cans, plastic, glass)	-			contractor to arrange for disposal
Paper/cardboard				remove to recycling outlet
Residual waste				
Hazardous/special waste e.g. asbestos (specify)				Disposal of fill material potentially containing Fibre Cement Fragments (FCF)
Plasterboard	12m3			remove to recycling outlet

**Part B – Waste avoidance from design to construction**

**Construction design**

*Outline how measures for waste avoidance have been incorporated into the design, material purchasing and construction techniques of the development. Refer to Table 2 below for potential reuse/recycling opportunities.*

**Materials**

Where practicable, natural materials are salvage throughout the demolition process will be recycled or reused.

Newly proposed exterior materials are robust to pro-long individual aesthetic of proposed development.

Future contractor will be in part for their contribution to maximising recycled materials as well as minimising waste throughout the construction process.

**Lifecycle**

Components within the proposed development to be designed, specify with a view of being robust and highly recyclable.

Material	Reuse/recycling potential
Concrete	Can be reused for filling, leveling or road base
Bricks and pavers	Can be cleaned for reuse or rendered over or crushed for use in landscaping and driveways
Untreated timber	Can be reused as floorboards, fencing, furniture, mulched or sent to second hand timber suppliers
Treated timber	Can be reused as formwork, bridging, blocking and propping or sent to second hand timber suppliers
Doors, windows, fittings	Sent to second hand suppliers
Glass	Can be reused as glazing or aggregate for concrete production
Metals (fittings, appliances and wiring)	Removal for recycling
Synthetic rubber (carpet underlay)	Sent for Reprocessed for use in safety devices and speed humps
Significant trees	Relocated either onsite or offsite
Overburden	Power screened and used as topsoil
Garden waste mulched	Composted
Carpet	Can be sent to recyclers or reused in landscaping
Plasterboard	Removal for recycling, return to supplier

*Table 2: Examples of demolition materials and potential reuse/recycling opportunities (based on the Combined Sydney Regional Organisation of Councils Model DCP 1997)*