

# WASTE MANAGEMENT

FACTSHEET

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*A large percentage of waste going into landfill is related to the construction, demolition and renovation of buildings. Even more waste is produced during the occupancy of buildings through the consumption of goods and services.*

This waste constitutes not only considerable environmental degradation but also represents a big financial burden for current and future generations.

*Ask your builder to prepare a waste management plan to minimise, separate and recycle waste generated on building sites so that:*

- Waste going to landfill is minimised
- Emissions, pollution and contamination are minimised
- Scarce resources are protected
- Construction costs are reduced
- Tipping fees are reduced or negated

## DESIGN, DETAILING AND SPECIFICATION STAGE

At the design, detailing and specification stage, make decisions which will have an impact on cost effective waste reduction techniques. Material selection and construction detailing strategies can have a big impact on the amount of waste material that is generated, as well as affecting the way the building is recycled later in life.

This includes errors in documentation which necessitate rectification or replacement of building elements incorrectly installed.

Consider the size, flexibility and adaptability of the project as this will affect the resource use per person and consequent waste, space allowance and energy use, as well as future recycling and/or re-use of the building and its components.

Life cycle analysis (LCA) of materials used in the construction can identify material durability, recyclability and disposability issues as well as environmentally damaging, toxic or waste-

prone materials, which should be minimised or eliminated.

Buildings that are designed for deconstruction will consider materials and jointing methods which permit disassembly and deconstruction which will encourage re-use and recycling.

Prefabrication of certain building elements, eg roof trusses, precast concrete elements can eliminate on-site waste, whilst standardised work practices and full utilisation of offcuts can further contribute to resource efficiency and waste reduction.

Modular design that accommodates standard material sizes should be the norm. This is particularly relevant in wall linings where ceiling heights determine sheet size – perhaps it should be the other way round. Sheets are normally supplied in 300mm increments in size so offcuts are almost unavoidable unless the ceiling heights are 2400, 2700 or 3000mm.

Legislation, contracts, policies and Australian Standards can be barriers to greener specifications and the incorporation of reused, recycled and reconstituted materials.

Councils generally require a Waste Management Plan to be submitted with a Development Application, which applies to:

- Site preparation (green waste)
- Demolition and destination of demolished materials
- Construction waste and destination of waste material
- Waste generated from occupancy (allow for compost heap or worm farm system)

## BEFORE STARTING TO BUILD

Make sure your builder has prepared a waste management plan that is communicated to suppliers, subcontractors, labourers and staff. Ensure this is monitored and adhered to.

Ask him to plan the site to reduce waste at different stages (excavation, building structure, envelope, interior fit out,

finishing) and require subcontractors to adhere to the site waste management plan.

The following table illustrates typical construction waste generated during a build.

Waste Description	Percentage of total waste (by weight)
Soil	36
Concrete based masonry	16
Brick and tiles	16
Timber	10
Vegetation	3
Metals	2
Plasterboard	2
Hard plastic	1
Paper	1
Others	13
<b>Total construction waste</b>	<b>100</b>

### DURING CONSTRUCTION

A considerable amount of waste material can be generated during construction, a large percentage of which can be avoided if sustainable practices (eg prefabrication, standardisation) are observed. It is in the builder's interests, not to mention the environment's, to minimise waste requiring disposal.

### ORDERING AND PURCHASING

Estimate quantities accurately, aim for nil waste allowances and avoid over-ordering. Purchase materials and components that can be re-used or recycled. Plan to limit the number of skips used in accord with your total waste budget.

### PACKAGING

Negotiate with your suppliers to:

- minimise packaging in their deliveries
- only use packaging that can be re-used or recycled
- take back packaging once goods are unpacked

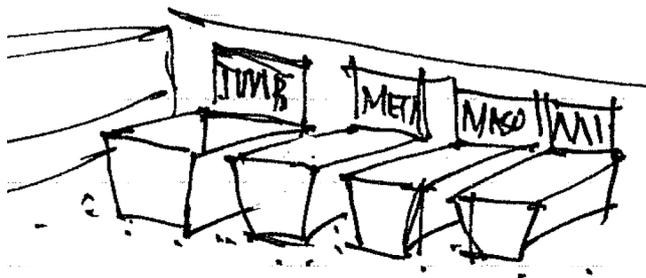
### SITE WASTE MANAGEMENT

*Include the waste management plan in site induction procedures and train labourers to observe the plan. Monitor the site waste management during construction.*

### REWARD GOOD PROGRESS.

Provide labelled receptacles on site for waste in the following categories and volumes:

- timber recycling bin 3m3
- mixed waste disposal bin 3m3
- metals recycling bin 3m3
- brick, tile and concrete recycling bin 3m3



### DURING OCCUPANCY

This is more of a sustainable living issue, however waste management during occupancy will be more manageable if systems are designed-in to facilitate waste separation for recycling.

*Install under-bench systems in the kitchen to encourage recycling at the source and ask your builder to allow for a compost system and worm farm in the garden area.*