FOREWORD

In an effort to help achieve the Government’s reduction target for waste disposal, Council has prepared the Waste Minimisation and Management Guide.

The Guide has been prepared to accompany the Waste Minimisation and Management Development Control Plan (DCP) and the corresponding control elements contained in other Council DCPs. The DCP and corresponding elements of control apply to the demolition, design, construction, use and ongoing management of development on all land to which the Hornsby Shire Local Environmental Plan 1994 applies. The primary purpose of the DCP and corresponding control elements is to provide development controls to promote responsible waste minimisation and management techniques in the pursuit of Ecologically Sustainable Development. The DCP and corresponding control elements provide general advice for all applicants on matters such as source separation, demolition, construction, design and siting of waste storage and recycling facilities as well as minimum submission requirements for an application.

The Guide provides the procedures for the submission and assessment of the waste minimisation and management aspects of an application.

The Guide provides specific design advice and best practice for the demolition, design and construction of buildings, waste facility design and on-going waste management.

It also contains detailed appendices providing advice on calculating generation rates, waste facility design, council services and lists of contacts.

It is envisaged that the protocol, best practice and detailed design standards will be regularly updated to be consistent with current and acceptable practice.
GUIDE TABLE

Waste Management Plan

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D1.02  Site Layout
D1.03  Placement of a Waste Storage Container in a Public Place

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B1.01  Choice of Building Materials
B1.02  Building Design

Construction of Buildings

C1.0  CONSTRUCTION STAGE
C1.01  Project Management
C1.02  Work Practices

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FD1.01  Waste and Recycling Receptacles
FD1.02  Waste Storage and Recycling Area/Facilities
FD1.03  Garbage and Recycling Rooms
FD1.04  Refrigerated Garbage Rooms
FD2.0  WASTE TRANSPORTATION AND MINIMISATION
FD2.01  Garbage Chute Systems
FD2.02  Volume Handling and Reduction Equipment

On-going Waste Management

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O1.01  Re-use and Recycling of Garden Waste
O2.0  RECYCLING HOUSEHOLD WASTE IN THE GARDEN
O2.01  Mulching
O2.02  Composting
O2.03  Worm Farming
O3.0 RESIDENTIAL WASTE MANAGEMENT
O3.01 Household Recycling
O3.02 Waste Collection Services

O4.0 COMMERCIAL AND INDUSTRIAL WASTE MANAGEMENT
O4.01 Waste Audits and Waste Minimisation Plans

Appendices
A1.0 WASTE MANAGEMENT PLAN
A1.01 Waste Management Submission Checklists
A1.02 Recycling / Reuse of Solid Waste Materials
A1.03 Waste Management Centres

A2.0 DEMOLITION OF BUILDINGS
A2.01 Approximate Composition of Sydney Demolition / Refurbishment Materials
A2.02 Procedures for the Removal and Disposal of Asbestos from Buildings
A2.03 Control of Placement of Waste Storage Containers in a Public Place

A3.0 DESIGN OF BUILDINGS
A3.01 Ecological Sustainability of Building Materials

A4.0 CONSTRUCTION OF BUILDINGS
A4.01 Estimates of Waste Materials in the Construction of a Dwelling

A5.0 WASTE FACILITY DESIGN
A5.01 Waste Storage Containers Sizes
A5.02 Garbage Vehicle Characteristics
A5.03 Recycling Notice
A5.04 Notes on and Terms of Easements

A5.0 ON-GOING WASTE MANAGEMENT
A6.01 Waste Generation Rates
A6.02 Code of the Storage and Transportation of Contaminated Infectious Waste

A7.0 MISCELLANEOUS
A7.01 Definitions and Abbreviations
A7.02 References
Hornsby Shire Council is located in the north of the Sydney Metropolitan area. The Shire is home to approximately 150,000 people and contains a variety of urban, commercial, industrial and rural land uses.

In 1990, Hornsby Shire Council residents were estimated to have produced 149,000 tonnes of waste that required disposal. This represented 1,120 kilograms of waste for each and every person in the Shire.

The challenge for Hornsby Shire is to maximise resource recovery, minimise construction, household, commercial, industrial and rural waste and to promote ecologically sustainable building design and construction techniques in an effort to help achieve the Government’s waste reduction target.

Ecologically Sustainable Development

The Waste Avoidance and Resource Recovery Act, 2002 requires the preparation of waste management strategies in the pursuit of minimising waste disposal and meeting the principles of ecologically sustainable development.

Household, commercial, construction and some industrial waste are often a valuable resource. These wastes can be reused or recycled both on or off site. Equally, the materials used in construction of buildings can help reduce waste. Second hand, recycled building products or building products with a good building environmental sustainability index can help reduce the waste.

The design of buildings, waste management in gardens and waste minimisation and management facilities can also help reduce the amount of waste generated for landfill.

Responsible on-going management of business and households can reduce waste and also lead to an economic benefit to those who employ the principles of the waste management hierarchy (i.e. Avoid, reduce, reuse, recycle and (as a last resort) dispose).

The Guide embodies practices which seek to educate proponents of development, households and business owners to ensure waste minimisation techniques are employed before, during and after the construction of buildings. These practices include information on:

- Waste Management Plan – to enable ease in the preparation and assessment of the waste management plan and other waste management aspects of an application.
- Demolition of Buildings – to maximise resource recovery in the demolition of buildings.
- Design of Buildings – to promote ecologically sustainable building products and designs.
- Construction of Buildings – to promote best practice project management and work practices to minimise construction waste.
- Waste Facility Design – to ensure waste management and minimisation facilities are of appropriate size, type, location and design to enable the efficient, safe and healthy storage and removal of waste.
- On-going Waste Management – to minimise garden and household waste, enable efficient collection of refuse and ensure there is responsible on-going waste management in business.
- Appendices – includes details which corresponds with the Waste Minimisation and Management DCP, individual DCP elements and Guide to ensure effective waste management.
**How to Use the Guide**

The Guide accompanies the Waste Minimisation and Management DCP and corresponding control elements contained in other DCPs. Reference is made in the DCP and control elements to general design advice promoted by Council.

The Guide extends upon the general design advice and provides protocol, best practice and detailed design standards for the size, location, design and construction of waste minimisation and management facilities.
Protocol to enable ease in the preparation and assessment of the waste management plan.

WP1.0  WASTE MANAGEMENT PLAN
WP1.01 Example of a Waste Management Plan
EXAMPLE OF A WASTE MANAGEMENT PLAN

Description
An example of a completed plan that provides details of the waste minimisation and management techniques to be used for the demolition, design, construction, use and on-going waste management of buildings.

Purpose
The purpose of the Waste Management Plan is to provide Council with details of:

- The volume and type of waste to be generated;
- Whether the waste will be re-used, recycled or disposed of
- Building materials and design techniques used; and
- How ongoing waste management will operate.

Protocol
To facilitate waste management and reduction, Council requires on-site sorting and storage of waste products pending re-use, recycling or collection.

The applicable sections of the following waste management plan must (at a minimum) be completed and submitted with applications which involve the demolition, construction, the use of a building and on-going waste management.

The following example of the waste management plan identifies the necessary detail which should be incorporated in a waste management plan. Larger developments should include the level of detail which accords with the scale of the development. The Resource NSW website contains a number of best practice publications that may be of assistance for more detailed waste management planning activities.

The information provided in the waste management plan will enable an assessment of how it is intended to re-use, recycle and dispose of waste. The information will be assessed against prescribed targets for the minimisation of waste disposal.

Outline of Proposal
Site Address: 7 Jones Street, Anytown
Applicant's name and address: J. Smith & Associates
P.O. Box 3, Anytown, 2999
Phone: 3333 0000   Fax: 3333 0001

Buildings and other structures currently on the site: Brick dwelling-house, concrete slab and driveway, timber fencing


The details provided on this form are the intentions for managing waste relating to this project
Signature of Applicant: J. Smith   Date: 14/4/03
### SECTION ONE – DEMOLITION STAGE

To be completed for applications involving demolition, excavation or residential subdivision (where involving more than 6 lots).

<table>
<thead>
<tr>
<th>MATERIALS ON SITE</th>
<th>DESTINATION AND QUANTITY OF WASTE</th>
<th>DISPOSAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TYPE OF MATERIAL</strong></td>
<td><strong>ESTIMATED VOLUME (M³)</strong></td>
<td><strong>ESTIMATED WEIGHT (kg)</strong></td>
</tr>
<tr>
<td></td>
<td><em>see A2.01 to help determine volume</em></td>
<td><em>see A2.01 to help determine weight</em></td>
</tr>
<tr>
<td>Excavation Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bricks</td>
<td>39.6</td>
<td>39,600</td>
</tr>
<tr>
<td>Concrete</td>
<td>5.5</td>
<td>13,200</td>
</tr>
<tr>
<td>Tiles</td>
<td>16</td>
<td>12,000</td>
</tr>
</tbody>
</table>

* see A1.02 for suggestions
* see A1.04 for outlets
* see A1.03 for transfer stations and landfills
**Material on Site**

<table>
<thead>
<tr>
<th>Type of Material</th>
<th>Estimated Volume (m³)</th>
<th>Estimated Weight (kg)</th>
<th>On-Site</th>
<th>Off-Site</th>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber - Please Specify</td>
<td>84</td>
<td>42,000</td>
<td>10,500</td>
<td>21,500</td>
<td>To Second Hand Building Materials Company</td>
</tr>
<tr>
<td>Oregon Pine</td>
<td></td>
<td></td>
<td>Re-use for floorboards and formwork</td>
<td></td>
<td>10,000 Remainder to Landfill</td>
</tr>
<tr>
<td>Plasterboard</td>
<td>11.4</td>
<td>5,700</td>
<td>5,700</td>
<td></td>
<td>To Landscape Supply Company</td>
</tr>
<tr>
<td>Metals - Please Specify</td>
<td>0.2</td>
<td>1,500</td>
<td>1,500</td>
<td></td>
<td>To Metal Recyclers</td>
</tr>
<tr>
<td>Other - Please Specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Waste</strong></td>
<td><strong>114,000</strong></td>
<td><strong>26,700</strong></td>
<td><strong>77,300</strong></td>
<td><strong>10,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

Does the combined re-use and recycling of waste materials meet Council’s target of 60% or greater (Yes/No) **Yes (91.5%)**. If no, revisit the table to see where improvements may be achieved. If the target is still not possible, please state reasons why:
**SECTION TWO – DESIGN STAGE**

To be completed for all applications involving the design of buildings.

**Choice of Building Materials**

<table>
<thead>
<tr>
<th>Used</th>
<th>Building Materials</th>
<th>Reused or Recycled</th>
<th>Ecological Sustainability of Building Materials (See A3.01)</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>External Wall Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Brick</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>Timber/Weatherboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Autoclaved Aerated Concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Stone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Fibrous Cement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Hardiplank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Aluminium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Other (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Frame:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Timber</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>Steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Other (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Internal Wall Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Brick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Timber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Autoclaved Aerated Concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Stone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Insulation (Specify): Fibreglass</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>Other (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Ground Floor Type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Concrete Slab on Ground</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>Suspended Concrete Slab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Suspended Timber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Insulation (Specify): Fibreglass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Other (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Floor Covering:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Tiles</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>Slate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Carpet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Timber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Vinyl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Other (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Roof Covering:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Concrete Roof Tiles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Terracotta Roof Tiles (Clay)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>Slate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Metal deck</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Aluminium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Fiberglass/Plastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Insulation (Specify): Fibreglass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Other (Specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Notable Site Works:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Asphalt Driveways/Paving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Concrete Driveways/Paving</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>Brck Fences/Walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Timber Fences/Walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Concrete Fences/Walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Stone Fences/Walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Other (Specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Tick boxes to indicate what building material is used, whether it is reused or recycled and whether its ecological sustainability qualities have been considered.
(Section Two – Design Stage - continued)

Building Design

<table>
<thead>
<tr>
<th>Design Techniques</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>The appropriate location of waste management facilities</td>
<td>✔</td>
</tr>
<tr>
<td>Design energy efficient housing to minimise energy consumption and use of fossil fuels (see Energy Efficient Housing Policy)</td>
<td>✔</td>
</tr>
<tr>
<td>Design to standard material sizes, use modular construction, prefabricated material and basic designs to reduce the need for off-cuts</td>
<td>✔</td>
</tr>
<tr>
<td>Specify the use of second hand, recycled or resource efficient building materials</td>
<td>✔</td>
</tr>
<tr>
<td>“Design for deconstruction” techniques should be used so materials can be easily reused/recycled at the end of the life span of the building</td>
<td>✔</td>
</tr>
<tr>
<td>Retrofit and repair existing buildings</td>
<td>✔</td>
</tr>
<tr>
<td>Design to minimise excavation</td>
<td>✔</td>
</tr>
<tr>
<td>Re-use off-cuts in building design</td>
<td>✔</td>
</tr>
<tr>
<td>Design and specify for the smallest possible satisfactory solution</td>
<td>✔</td>
</tr>
<tr>
<td>Retain a copy of the building plans and specifications with the building to aid maintenance and resource recovery at the end of a building lifespan</td>
<td>✔</td>
</tr>
<tr>
<td>Landscape design incorporates an area for composting</td>
<td>✔</td>
</tr>
<tr>
<td>Other (Specify)</td>
<td>✔</td>
</tr>
</tbody>
</table>

Note: Tick boxes where design techniques have been or will be utilised to minimise waste.
### SECTION THREE – CONSTRUCTION STAGE

To be completed for all applications involving construction of buildings.

<table>
<thead>
<tr>
<th>MATERIALS ON SITE</th>
<th>DESTINATION AND QUANTITY OF WASTE</th>
<th>DISPOSAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>REUSE AND RECYCLING</td>
<td></td>
</tr>
<tr>
<td>EXPECTED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATERIALS</td>
<td>ESTIMATED VOLUME (M³)</td>
<td>ESTIMATED</td>
</tr>
<tr>
<td></td>
<td>* see A4.01 to help determine</td>
<td>WEIGHT (kg)</td>
</tr>
<tr>
<td></td>
<td>volume</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* see A1.03 for transfer stations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and landfills</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantity (kg)</th>
<th>Use</th>
<th>Quantity (kg)</th>
<th>Probable destination</th>
<th>Quantity (kg)</th>
<th>Probable destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavation Material</td>
<td>200</td>
<td>100,000</td>
<td>60,000</td>
<td>Re-use topsoil for landscaping and fill</td>
<td>40,000</td>
</tr>
<tr>
<td>Green Waste</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bricks</td>
<td>13.9</td>
<td>13940</td>
<td>13,940</td>
<td>To Crushing &amp; Recycling Company</td>
<td></td>
</tr>
<tr>
<td>Concrete</td>
<td>0.6</td>
<td>1,410</td>
<td>560</td>
<td>Re-use as fill</td>
<td>850</td>
</tr>
<tr>
<td>Tiles</td>
<td>4.7</td>
<td>6,250</td>
<td>1,880</td>
<td>Re-use as fill</td>
<td>4,370</td>
</tr>
</tbody>
</table>
### MATERIALS ON SITE

<table>
<thead>
<tr>
<th>EXPECTED WASTE MATERIALS</th>
<th>ESTIMATED VOLUME (M³)</th>
<th>ESTIMATED WEIGHT (kg)</th>
<th>ON-SITE</th>
<th>OFF-SITE</th>
<th>DISPOSAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber - Please Specify</td>
<td>2.4</td>
<td>1,200</td>
<td></td>
<td>1,000</td>
<td>To Stockpile at Second Hand Building Materials Company</td>
</tr>
<tr>
<td>Oregon Pine</td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td>Remainder to Transfer Station</td>
</tr>
<tr>
<td>Plasterboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metals – Please Specify</td>
<td>0.1</td>
<td>290</td>
<td></td>
<td>200</td>
<td>To Metal Recyclers</td>
</tr>
<tr>
<td>Other – Please Specify</td>
<td></td>
<td></td>
<td></td>
<td>90</td>
<td>Remainder to Transfer Station</td>
</tr>
</tbody>
</table>

#### TOTAL WASTE

<table>
<thead>
<tr>
<th></th>
<th>Quantity (kg)</th>
<th>Use</th>
<th>Quantity (kg)</th>
<th>Probable destination</th>
<th>Quantity (kg)</th>
<th>Probable destination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>123,090 kg (100%)</td>
<td></td>
<td>62,440 kg (50.5%)</td>
<td></td>
<td>20,360 kg (16.5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40,290 kg (33%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does the combined re-use and recycling waste meet Council’s target of 60% or greater (Yes/No) **Yes (67%)**.
If no, revisit the table to see where improvements may be achieved. If the target is still not possible, please state reasons why:
## SECTION FOUR – USE AND ON-GOING MANAGEMENT

To be completed for all applications involving the construction of residential accommodation and commercial and industrial developments or for the change of use of same.

Describe how you intend to ensure on-going management of waste on-site. Issues which may require to be addressed include maintenance, signage and responsibilities.

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>PROPOSED ARRANGEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size and Location</td>
<td></td>
</tr>
<tr>
<td>Use of premises.</td>
<td>Townhouses</td>
</tr>
<tr>
<td>Number of dwellings/units</td>
<td>10 dwellings</td>
</tr>
<tr>
<td>Estimated garbage generation (See A6.01)</td>
<td>N/A</td>
</tr>
<tr>
<td>Estimated recycling generation (See A6.01)</td>
<td>N/A</td>
</tr>
<tr>
<td>Number and capacity of waste storage bins and volume handling and reduction equipment to be used for managing garbage</td>
<td>10 x 140L</td>
</tr>
<tr>
<td>Number and capacity of waste storage bins and volume handling and reduction equipment to be used for managing recyclables</td>
<td>10 x 240L</td>
</tr>
<tr>
<td>Number and capacity of waste storage bins and volume handling and reduction equipment to be used for managing garden organics (if applicable)</td>
<td>10 x 240L</td>
</tr>
<tr>
<td>Areas allocated for waste storage and recycling area and volume handling and reduction equipment (highlight on plan drawings)</td>
<td>Waste storage facility at street frontage</td>
</tr>
<tr>
<td>On-site Access</td>
<td></td>
</tr>
<tr>
<td>Describe arrangements for on-site access by residents to waste facilities (highlight on plan drawings)</td>
<td>Waste storage facility within 60m of Residents</td>
</tr>
<tr>
<td>Describe arrangements for on-site access by collection contractors to waste facilities (highlight on plan drawings)</td>
<td>An easement enabling waste services access on property</td>
</tr>
<tr>
<td>Design and Construction</td>
<td></td>
</tr>
<tr>
<td>Describe the fire safety features and protection equipment provided.</td>
<td>Design and construction meets BCA requirements</td>
</tr>
<tr>
<td>Describe how noise associated with residents using the bins, collection contractors emptying the bins and waste falling through and out of the bottom of a garbage chute has been minimised.</td>
<td>N/A</td>
</tr>
<tr>
<td>Describe any features for preventing ingress of vermin into waste storage areas.</td>
<td>Waste bins with lids</td>
</tr>
<tr>
<td>Describe measures taken to ensure waste storage areas are aesthetically consistent with the rest of the development.</td>
<td>Design features of facility same as building</td>
</tr>
<tr>
<td>Describe the light source and method of ventilation within waste storage areas.</td>
<td>Open air facility</td>
</tr>
<tr>
<td>Describe facilities for washing bins, waste storage areas and garbage chutes systems.</td>
<td>Cold water supply.</td>
</tr>
<tr>
<td>Describe the features incorporated in the design of the volume handling and reduction equipment to ensure its safe and efficient operation.</td>
<td>N/A</td>
</tr>
<tr>
<td>On-going Waste Management</td>
<td></td>
</tr>
<tr>
<td>Identify the time frame that it will take to introduce an environmental management system (i.e. waste minimisation and management strategy).</td>
<td>3 months</td>
</tr>
<tr>
<td>Describe arrangements for the cleaning and maintenance of waste storage areas and volume handling and reduction equipment.</td>
<td>Person nominated by body corporate</td>
</tr>
<tr>
<td>Describe arrangements for ensuring appropriate signage and ensuring residents/tenants are aware of how to use the waste management system correctly.</td>
<td>Person nominated by body corporate</td>
</tr>
<tr>
<td>Identify each stage of waste transfer between residents/tenants' units and loading into the collection vehicle. Who is responsible for each transfer?</td>
<td>Residents</td>
</tr>
<tr>
<td>Describe arrangements for the disposal of hazardous waste (if applicable)(See A6.02).</td>
<td>N/A</td>
</tr>
</tbody>
</table>
References


Resource NSW (February, 2002) Better Practice Guide for Waste Management in Multi-Unit Dwellings
Best practice to promote maximum resource recovery in the demolition of a building.

D1.0 DEMOLITION STAGE
D1.01 Method of Recovery
D1.02 Site Layout
D1.03 Guide for the Placement of a Waste Storage Container in a Public Place
**METHOD OF RECOVERY**

**Description**

The method of recovery is the way in which materials are recovered during the demolition of buildings and the excavation of the land.

**Purpose**

The purpose of the best practice is to:

- Minimise waste by the re-use and recycling of excavated materials and building materials; and
- Ensure the method of recovery is planned around every phase of demolition and excavation works prior to the design and construction of the building.

**Best Practice**

Material recovery should be incorporated in project planning:

- for re-use or recycling on-site or off-site;
- by the preparation of a waste management plan.

A waste management plan should estimate the volume and composition of materials in the building for demolition. Appendix A2.01 contains approximate percentages of the types of materials included in various types of buildings.

Excavated materials and building materials should be sorted and separated at every stage of demolition.

Material recovery should be coordinated with job timing. Recovery activities of re-usable / recyclable materials should be planned at the following stages:

- Stripping out – fittings, fixtures, flooring, doors, window frames, wrought iron, stained glass;
- Roof removal – tiles, steel and aluminium roofing; and
- Demolishing the main structure – timber, bricks.

Your approach to material recovery should be tailored for different demolition types and the majority composition of materials, namely:

- Residential (New or Old) – bricks and concrete/mortar, timber and roof tiles;
- Commercial and industrial – bricks and concrete/mortar, metals, plastic and glass;
- Internal Office Refurbishment – internal walls/ceilings, floor coverings, carpets, tiles, metals, plastic and glass; and
- Footpaths, driveways, kerb and guttering - concrete.

During demolition and material recovery activities, one should beware of potentially hazardous materials. Hazardous construction materials should be disposed of in accordance with EPA guidelines. Where the disposal of asbestos is involved, asbestos should be disposed of in accordance with the procedures for the removal and disposal of asbestos from buildings (see A2.02).
References


- **Demolition**
  - Bricks and clay products can be crushed and recycled.

- **Reuse**
  - Sanitary ware

- **Recycle**
  - All off-cuts, scrap and demolition material

- **Recycle**
  - Or reuse carpets rather than sending to landfill

- **Recycle**
  - Concrete upon demolition by crushing for reuse

- **Salvage**
  - All materials possible for reuse
    - Remove roofing tiles carefully for reuse

(Source: TAFE NSW (1997))
SITE LAYOUT

Description

Site layout is the arrangement of materials, recovery equipment and location of access for transport equipment on the project site.

Purpose

The purpose of the best practice is to:

- Ensure the volume and composition of materials in the building for demolition is estimated to provide for appropriate site layout;
- Determine the size and location of spaces to ensure efficient material recovery; and
- Ensure appropriate vehicular access to and on-site to enable the efficient removal of re-usable, recyclable and waste materials.

Best Practice

Recovery activities should be considered when planning site layout. The volume and composition of recoverable materials and refuse should be quantified to ensure an on-site space of appropriate size and location is provided to enable efficient recovery practices.

The on-site space should provide for:

- material sorting;
- segregation materials that must be disposed of (i.e. Potentially hazardous ones);
- recovery equipment (eg. Concrete crushers and colour coded Mini-skips);
- material storage; and
- access for transport equipment.

Appropriate vehicular access to and on-site to enable the efficient removal of reusable, recyclable and waste materials should be provided. Access should be readily available to the on-site space identified for the recovery of materials.

References


Vehicular Access, Storage and Separation Areas to Assist Materials Recovery

(Source: TAFE NSW (1997))

Best Practice D1.02

Waste Minimisation and Management: Guide
Page 22
**PLACEMENT OF A WASTE STORAGE CONTAINER IN A PUBLIC PLACE**

**Description**

A waste storage container or mini skip is used for the disposal of bulky wastes usually associated with the demolition of a building.

**Purpose**

The purpose of the best practice is to:

- Ensure the type and number of containers is appropriate to the materials to be stored and transported;
- Ensure the location of the container does not disturb traffic flow or pedestrian movement;
- Ensure the location of the container does not disturb normal stormwater flow;
- Ensure containers are clearly visible; and
- Ensure the size of the container/s is appropriate to the location.

**Best Practice**

Under Section 68 of the Local Government Act, 1993, consent is required for the placement of a waste storage container in a public place (ie. a footway, nature strip, mall or road shoulder).

Approval under Section 68 of the Local Government Act, 1993 requires both owner’s consent from Council where a waste storage container is placed on a local road and consent for the activity itself.

Council will only permit the storage of a waste storage container on a footway, nature strip, mall or road shoulder where waste containers cannot be located on private property.

**Avoid, Reduce, Reuse, Recycle (and as a Last Resort) Dispose**

Hornsby Shire Council is committed to the principles of the waste management hierarchy. This involves the minimisation of waste through reduction techniques and the re-use and recycling of materials before, as a last resort, materials are disposed of.

Many materials, particularly building materials can be reused or recycled. Council’s Waste Minimisation and Management Guide contains a list of local businesses who buy and sell second hand building materials.

**Waste Disposal Bins**

Where the disposal of a substantial volume of material is required, a waste storage container may be the most cost and environmentally efficient disposal method available. These waste storage containers are ideal for building sites, home renovations, household and garden clean-ups.

**Number and Type of Containers**

A number of colour coded storage containers is often beneficial for the separation and storage of building materials on a demolition site. Where more than one waste storage container is to be provided, careful consideration should be given to the materials that will be stored and transported so
that materials can be separated. This will assist in maximising re-use and recycling and minimising disposal at landfill.

The size and type of the container should be appropriate to the nature of the waste generated and the location in which it is to be placed.

In general the following dimensions are of an acceptable range:

**On Road Shoulders**  
**On Nature Strips/Malls**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>On Road Shoulders</th>
<th>On Nature Strips/Malls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>3 - 5.4m</td>
<td>2 - 5.4m</td>
</tr>
<tr>
<td>Width</td>
<td>1.5 - 2.5m</td>
<td>1.5 - 2.5m</td>
</tr>
<tr>
<td>Height</td>
<td>1.0 - 2.0m</td>
<td>1.0 - 2.0m</td>
</tr>
</tbody>
</table>

Larger waste containers are at the discretion of Council.

**Location of Containers**

A waste storage container should be located to maximise source separation, safety and to minimise environmental damage (i.e. disturbance to stormwater drainage flow). The proposed location relative to the subject property, footpath and street alignment and intersections should be identified on the plans. No approval will be given by Council to a waste storage container placed in a public place where one or more of the following apply:

- Where there is sufficient, easily accessible space within the user’s premises;
- Where skips front adjoining properties (without neighbours approval);
- In on road locations where parking, stopping, standing of motor vehicles are prohibited. These locations are often not signposted and include the following:
  - At an intersection or within 6 metres of the property line (whether controlled by traffic signals or not);
  - Within 9 metres of the approach side and 3 metres of the departure side of a pedestrian crossing;
  - Within 18 metres of the approach side and 9 metres of the departure side of a children’s crossing or bus stop;
  - On a hill or curve where the view is not clear for at least 50 metres;
  - Within 3m from any separation lines; and
  - On a median strip or traffic island.
- For placement in on road locations where kerbside parking restrictions apply (e.g. no stopping, one hour parking);
- For placement on footpath locations at an intersection or within 6 metres of a corner, where there are large volumes of pedestrian traffic or where obstruction to vehicle access, sight lines or service facilities is likely; and
- Where skips are to be used to store putrescible inflammable or explosive material or other material specified by the NSW Waste Service. Contact should be made with the NSW Environment Protection Authority.

The following locations are not preferred:

- On classified arterial/sub-arterial roads;
- In narrow streets;
- Poorly lit areas;
- Where it would require pedestrians to use the roadway;
- Where stormwater drainage is impeded; and
- Locations which interfere with sight lines of drivers entering or leaving the premises.
Safety

The design of a waste storage container should be appropriate to the location in which it is to be placed to maximise safety in terms of visibility.

A waste storage container should:

- Be clearly visible;
- Be lightly coloured;
- Have rear marking plates - complying with requirements for heavy vehicles/trailers under Clause 56A of Part iv(A) of the Motor Traffic Regulations;
- Have reflective tape; and
- Have flashing yellow lights, where appropriate.

NB. These measures are shown in Figure 1.

For further information telephone Council's Traffic Road and Safety Branch on (9847 6684) or consult Council's Policy “Control of Placement of Waste Storage Containers and Waste Trailers and/or Building Materials on Footways, Nature Strips and Local Road Shoulders” (See A2.03).

References

Hornsby Shire Council (1997) Policy No. ESEEC 5: Control of Placement of Waste Storage Containers and Waste Trailers and/or Building Materials on Footways, Nature Strips and Local Road Shoulders

Figure 1 – Safety Features for Waste Storage Containers
Best Practice to promote the minimisation of construction waste and the use of ecologically sustainable building products and designs.

B1.0 DESIGN STAGE

B1.01 Choice of Building Materials
B1.02 Building Design
CHOICE OF BUILDING MATERIALS

Description

The choice of building materials is the process which includes the consideration of new, second hand, recycled and ecologically sustainable building products for use in a building.

Purpose

The purpose of the best practice is to:

- Maximise the use of second hand and recycled building materials in the construction of buildings; and
- Ensure the use of building materials with a good rating on the BES index in the construction of buildings.

Best Practice

Second hand and recycled building materials should be considered for inclusion in construction. Appendix A1.02 provides suggestions for the reuse and recycling of building products. Appendix A1.04 provides a list of businesses who specialise in the sale of second hand and recycled building products.

All human processes have some impact on the environment, now or in the future. Building materials and construction processes contribute to these effects. The BES index (Building material Ecological Sustainability) considers these effects. It provides a life cycle analysis of building materials. The choice of building materials should be guided by the BES index or by undertaking a life cycle analysis. The education package prepared by TAFE NSW and titled “Minimising Construction and Demolition Waste” identifies that the following factors should be considered in undertaking a life cycle analysis:

- **Resource Depletion** - of a material refers to the raw ingredients that are used in its manufacture. This includes aspects such as:
  - **Damage of the environment** – from the mines and/or extraction sites used to win the necessary raw materials, the particular ecological sensitivity of these sites, the number of sites/sources that are involved in winning the raw materials;
  - **Amount of material extracted** – what amount of raw material has to be mined to produce a given amount of useable building material and how much is wasted;
  - **Status of raw material** – is it commonly available or a scarce resource that is being depleted? Is it renewable?;
  - **Recycled content in the material** – what proportion of the components used to make a building material are commonly recycled?;
  - **Maintenance required** – the greater the need to maintain a material, the greater the chance that it might need renewal, will more maintenance result in more materials and energy expenditure being required?; and
  - **Recyclability of product** – is it a ‘once use’ product or does it have further potential?

- **Inherent pollution of a material** - refers to the consequences of extraction, manufacture and production:
  - **Solid wastes**;
  - **Liquid wastes**;
  - **Greenhouse gases and air pollution emissions**; and
- Potentially hazardous products and particulates?

- **Inherent pollution of a product** - refers to the consequences of fabrication, packaging during building use and at the end of its life:
  - Assembly of prefabricated components and packaging – amount? Consequences?;
  - Fabrication of on-site waste and packaging – amount?, consequences?;
  - Environmental impacts during building use – construction, users?;
  - Environmental impacts at end of life – deconstructable? Reuse/recycle?; and
  - Loss of amenity – what is the existing use of the site?.

- **Embodied Energy** - includes the energy costs consumed in winning the raw materials, the manufacture and transport of material, the equipment and labour used as well as the energy to place (build) the material or product on site:
  - Energy - required to obtain raw materials, process them and produce a building material or product, including transport between these stages plus the process energy requirement in manufacture;
  - Transport energy – highly variable dependent upon location and material?; and
  - Construction energy – quantity?.

(Source: TAFE NSW (1997) – Part B pgs 38-39)

The Ecological Sustainability of Building Materials Table (see A3.01) contains a summary of the ecological sustainability of a number of building products. The Building Material Ecologically Sustainability Index: A numerical method for assessing the environmental impact of building materials produced by Partridge Partners Pty Ltd may also be a useful guide in choosing ecologically sustainable building materials.

**References**


LIFE CYCLE IMPACTS OF A BRICK

Best Practice B1.01

Waste Minimisation and Management: Guide
Page 30
Description

Building design is the process which includes the siting of a building, the drafting of the floor plan and elevations of a building and the specification of building materials and fittings.

Purpose

The purpose of the best practice is to promote the avoidance, reduction, re-use or recycling of waste by good building design.

Best Practice

The education package prepared by TAFE NSW and titled “Minimising Construction and Demolition Waste” identifies that the following building design techniques can be used to avoid waste.

- Design to standard material sizes – saves money and off-cuts.
- Detail your documentation – save the often hasty on-site decisions.
- Incorporate modular and pre-fabricated construction – save waste.
- Specify products with recycled content – support recycling.
- Design for Deconstruction – softer mortars where structurally acceptable, screws and bolts in preference to nails and glues, separable materials rather than irreversible.
- Retrofit existing buildings – in preference to new construction.
- Ensure drawings and specifications are retained with the building – to assist maintenance, renovation and eventual resource recovery on demolition.
- Consider potential product hazard to the worker and environment and likely disposal requirements when choosing products.
- Site plan to include all construction operations – including waste issues.
- Design and specify the smallest possible satisfactory solution.
- Design and specify resource-efficient materials.
- Demand more flexible material sizes or design to fit / utilise the material sizes / specifications currently available.
- Use natural lighting, ventilation, heating / cooling to its maximum.
- Minimise or eliminate energy-intensive services and fitments.
- Push for acceptance of renewable / reused / recycled content materials.
- Design for disassembly (DFD).
- Specify materials with a recycled content to be used on the job.
- Be aware of which materials can be most readily reprocessed and recycled.

(Source: TAFE NSW (1997) – Part B pgs 45, 61, 69 and 71)

References


- Design to best use existing levels
- Design for longevity for those long-life materials
- Design using dimensional coordination (standard modules)
- Specify accurately required quantities
- Design for the product's strength and durability - as well as appearance and solar potential

(Source: TAFE NSW (1997))
Best Practice to promote good project management and work practices which minimise construction waste.

C1.0 CONSTRUCTION STAGE

C1.01  Project Management
C1.02  Work Practices
PROJECT MANAGEMENT

Description

Project management is the overseeing of the project to ensure the efficient construction of a building and is typically the role of the site foreman, architect or builder.

Purpose

The purpose of the best practice is to minimise waste by the use of good project management on-site.

Best Practice

The research undertaken by Reddrop, Ryan and Walker has identified the following as best practice project management.

Material Storage

- Minimise the delay between delivery and installation and the chance for goods to go missing or be damaged.
- Consider the packaging of goods. Will it protect them, or are additional precautions necessary?
- Aim to have white goods delivered and installed as close as possible to handover date.
- The master-key system is a major contributor to the incidence of theft on building sites. Take care when selecting suppliers and subcontractors.
- Brief employees and make sure they understand the importance of security on site, at all stages of the job.
- Consider using prefabricated components, for example, framing and roof trusses, to reduce the time goods stay on site and their utility to other parties.

Material Handling

- Develop a site plan to deposit and stack materials prior to delivery. Consider material properties, where they will be required and how they will be moved. Stacking of bricks around the perimeter by the supplier is a wide-spread example of good practice.

Checking of Goods

- Check goods for quantities and quality on arrival. This should be done by the builder or a trusted employee. This allows the builder to act quickly if the supplier is at fault and allows continual evaluation of supplier's and manufacturer's quality, packaging techniques and accuracy.
- Enlist the ongoing participation of all trades in the checking process. This facilitates cost and quality control through regular feedback and plays an essential part in developing a workplace culture which supports efficiency and initiative.

Site Operations

The Role of Labour

- Encourage waste aware practices among trades and employees.
- There is an increasing trend to waste-producer accountability. Consider requiring trades to dispose of their waste or dispose on-site in a predetermined way.
• Use a written contract with all trades and consider inserting clauses requiring waste aware practices.
• Encourage trades to source outlets for waste where these exist. Not only will this reduce landfill charges, but in giving trades an income, it will provide a further incentive for waste management without requiring a premium.
• Instigate quality assurance strategies for waste management and establish yourself as a waste aware contractor. Use this as a marketing tool.
• When using labour-only trades, maximise their efficiency by careful supervision and the use of an accurate take-off that requires diligence to carry out successfully.
• Put an emphasis on forging long-term working relationships with skilful trades people who share similar commitments to quality and efficiency. Develop shared understanding of priorities and benefits to be gained from practices such as waste management. Work together to continually refine strategies and techniques.

Materials Re-use

• Where possible take goods to other sites. Carefully consider the cost of leaving remnant material for landfill and of carrying-on. Take into account transport time, storage and likelihood of future use.
• Plan to maximise resources. It may be economical to store bricks for use on rendered houses where colour and texture were irrelevant.
• Consider using storage space to accumulate goods to a useful quantity.

Treatment and Disposal of Waste On-Site

Generally

• Recyclers insist on clean waste, so store all wastes securely and separately to prevent contamination.
• Clearly designate waste storage bins by colour coding or labelling and protect them from the weather with a lid or cover.
• Provide financial incentives for subcontractors to put their wastes where you want them – not where it falls. Consider making such requirements part of the subcontracting arrangement.
• Keep regular rubbish out of special material bins.
• Consider locking special waste bins at night and on weekends to stop others dumping their rubbish in your recycling bins.
• To contain general rubbish like plastic film, cardboard, glue and paint tins, create an on-site compound with star pickets and chicken wire. This will isolate the waste and stop it spreading around the neighbourhood.
• There exist various definitions of ‘separation’ – builders must become aware of the various options and strategies waste management embraces.

Disposal of Waste On-Site

• Make supply-and-fix contractors responsible for the proper disposal of their wastes to a location agreed with the subcontractor and the recycling facility.
• Shop around for licensed and experienced waste carters.
• Ensure that wastes generated on-site are dumped legally. If they are not, you are the one held responsible and you may be heavily fined.
• Coordinate regular pick-ups to eliminate overflowing bins.
• On a multi-builder site, coordinate pick-ups with other builders to cut delivery costs.
• Talk to the manufacturers and suppliers about your and their waste management approach and how you can achieve maximum recycling benefits and marketing incentives.
• Find out about the location of the nearest separation/recycling station.

(Source: Reddrop, Ryan and Walker - Morrison (January 1997) – Pgs 67 and 68)
References


Recycle
all uncontaminated waste
plasterboard

Protect
- glazing from site
damage and aggressive
products (e.g. cement)
and vandalism

Off-cuts
can be re-used -
minimize waste

Reuse / Recycle

Quantities
to be accurately taken off

Off cuts
to be kept separate from other
materials clean and dry for reuse
and/or recycling

(Source: TAFE NSW (1997))
WORK PRACTICES

Description

Good work practices are methods to ensure the efficient construction of a building and is typically the role of tradespersons and labourers.

Purpose

The purpose of the best practice is to minimise waste by the use of good work practices on-site.

Best Practice

The research study undertaken by Reddrop, Ryan and Walker has identified the following as good on-site work practices.

Good Work Practices

Concreting

• Use computer estimation to make order as tight as possible. Once on site, use best practice for waste control.
• Encourage deposition of remnant from any pump wash at front of site with other waste. Gather together plastic bags into one location for disposal.

Framing Carpentry

• Spend time in accurate estimation. If an awkward member size is required, order the next size that will give a useable off-cut.
• Calculate these with an eye to noggin or other use.
• Use off-cuts for blocks where practical.
• Throw off-cuts into one or two locations for efficiency.
• Check supply of timber against order for quality and quantity.
• Ensure carpenter has complete cutting list and any other information that may be required to use timber to best effect.

Electrical Services

• Consider using a sub-board to reduce wiring distances, quantities, waste and cost.

Bricklaying

• Keep a stack of half a dozen halves at hand to save time and materials when working on lower courses.
• Throw waste into a couple of piles for easy removal and a clean, safe, site.
• Use halves instead of fulls on edge to make up footing levels.
• Use bricks carried over from other jobs in places where they won’t be seen – behind stairs, inner skirts and so on.
• Have bricks dropped around perimeter wherever possible to save damage in transporting to place of use.
• If uncertain of quantity, leave ordering the last couple of hundred until number required is better known.
Roof Tiling

- Throw tiles into a couple of piles around the perimeter, not all over the site.
- Require plastic ties to be collected in hand (instead of dropping to ground) and tied off in a bunch. It takes no time, is common practice for some contractors and makes a difference to the tidiness and environmental impact of the job.

Plastering

- Use off-cuts from doors and windows in cupboards and other small areas.
- If supplying and fixing, consider taking on remnants a full sheet wide and over 800mm long. Some contractors find this worthwhile at present.

Fix Carpentry

- Save anything over 400mm that can be scribed.
- Throw waste into white goods boxes if present. It makes disposal and separation easier, cleaner and quicker.

Ducted Heating

- Tie off remnants in plastic bag and throw plaster cut-outs onto plaster pile.

(Source: Reddrop, Ryan and Walker - Morrison (January 1997) – Pgs 68 and 69)

References


- **Lay** pavers etc with minimum or no cement to facilitate reuse

- **Install** so as to minimise waste and following good trade practices
  * minimise dust problems (your health)
  * minimise glues (cost and toxicity)

- **Install** using nail down fasteners rather than glue where possible

- **Separate** aggregate - don't commingle

- **Lay accurately** especially the first course to minimise problems of waste

- **Batch well and accurately** - don't be too generous with the cement

- **Recycle** glass without commingling

(Source: TAFE NSW (1997))
Specifications to ensure waste minimisation and management facilities are of appropriate size, type, location and design to enable the efficient, safe and healthy storage and removal of waste.

FD1.0 WASTE STORAGE AND RECYCLING
FD1.01 - Waste and Recycling Receptacles
FD1.02 - Waste Storage and Recycling Area / Facilities
FD1.03 - Garbage and Recycling Rooms
FD1.04 - Refrigerated Garbage Rooms

FD2.0 - WASTE TRANSPORTATION AND MINIMISATION
FD2.01 - Garbage Chute Systems
FD2.02 - Volume Handling and Reduction Equipment
WASTE AND RECYCLING RECEPTACLES

Description

Waste and recycling receptacles are bins, containers and crates which provide for the temporary storage of garbage and recyclable materials until its disposal by authorised garbage vehicles.

Purpose

The purpose of these specifications are to:

- Ensure a development provides a sufficient number of receptacles for the reception and storage of garbage and recyclables arising on the premises;
- Ensure all receptacles, including cans, bags, containers, crates and bins for storage of garbage and recyclables, whether compacted or not, are of approved capacity, construction, shape and material;
- Require special types of receptacles to be provided for toxic, contaminated or dangerous materials; and
- Require commercial containers to be situated in an approved location by Council’s Waste Management Team.

Specifications

Kitchens

Kitchens in dwelling-houses, multi-unit housing, residential accommodation and commercial and industrial developments should be designed to provide a waste cupboard which can accommodate waste collection receptacles to provide for the temporary (1 day) storage of garbage and recyclable and compostible material.

Dwelling-houses and Low and Medium Density Multi-Unit Housing in Urban Areas

Dwelling-houses and Low and Medium Density Multi-Unit Housing should be provided with a 140 litre mobile garbage bin (MGB) for domestic waste, a 240 litre MGB for recyclable materials and a 240 litre MGB for green waste for each dwelling.

Medium/High Density Multi-unit Housing

Medium/High Density Multi-Unit Housing should be provided with a 140 litre MGB for domestic waste and a 240 litre MGB for recyclable materials for every two dwellings.

High Density Multi-unit Housing

High Density Multi-Unit Housing should be provided with 660 litre MGBs for domestic waste and 240 litre MGBs for recyclable materials based on the amount of garbage likely to be generated.

Dwelling-houses and Low Density Multi-unit Housing Developments in Rural Areas

Dwelling-houses and Low Density Multi-unit Housing developments in rural areas should be provided with a 140 litre MGB for domestic waste and a 240 litre MGB for recyclable materials for each dwelling.
Dwelling-houses on Dangar Island

Dwelling-houses on Dangar Island should be provided with a 55 litre garbage bin for domestic waste and a 55 litre garbage bin for recyclable materials for each dwelling.

Dwelling-houses in River Settlements

Dwelling-houses in river settlements should utilise the 660 litre MGBs for domestic waste and the 240 litre MGBs for recyclable materials kept in the lock up enclosure at Berowra Waters.

General Design Requirements for Containers in Residential Buildings

Containers for residential buildings should:-

- be provided with a close fitting lid or lids which are light in weight and designed to be easily opened and closed;
- have a maximum capacity of 3.0m$^3$;
- be fitted with four (4) swivel wheels of rubber or other approved durable material, which are capable of adequately supporting and easily manoeuvring the container under full load conditions; and
- be capable of being emptied by a Council approved rear loading garbage vehicle or other vehicle approved by Council.

Commercial and Industrial Units

Commercial and industrial units should preferably be provided with a 140/240 litre MGB for commercial waste and a 240 litre MGB for recyclable materials for each unit. However, where developments generate considerable waste or have special needs, commercial and industrial units could be provided with a 660 litre MGB or a 1.5m$^3$ or 3m$^3$ garbage container for commercial waste and the same for recyclable materials based on the amount of garbage likely to be generated. Average commercial and industrial waste generation rates are contained in the Waste Generation Rate table (see A6.01).

Premises to be used by medical practices should provide receptacles for the safe storage and collection of medical waste.

Storage and disposal of hazardous waste should comply with EPA guidelines.

General Design Requirements for Containers in Commercial and Industrial Buildings

A containerised system of garbage collection or other approved mobile collection system (see A5.01) should be provided for the reception, storage and disposal of garbage in commercial and industrial buildings when:-

- the amount of garbage likely to be generated in the building exceeds or is likely to exceed, 0.20m$^3$/day; or
- the building contains more than three businesses, shops or units; or
- Council considers that, due to the special circumstances of the business, a container or other system is required;

Containers for commercial buildings should be:-

- provided with a close fitting lid or lids which are light in weight and designed to be easily opened and closed;
- where fitted with wheels, such wheels should be of rubber or other approved material and be capable of adequately supporting and easily manoeuvring the container under full load conditions.
Where toxic, contaminated or dangerous materials are being stored or transported, special types of receptacles should be provided in accordance with Council’s Contaminated Waste Storage and Transportation Code (see A6.02).

Where a container is not sited alongside the volume handling or compaction equipment, a mobile receptacle or trolley should be provided for the transportation of bags or compacted garbage from the volume handling or compaction equipment to the container.

References


Resource NSW (February, 2002) Better Practice Guide for Waste Management in Multi-Unit Dwellings
Description

A waste storage and recycling area is the area nominated for the storage of waste, recyclable materials and green waste until collected by Council or authorised contractors.

A purpose built waste and recycling material storage facility is a shelter which accommodates the waste and recycling containers of a development. The facility is required for medium density to medium/high density multi-unit housing developments and some commercial and industrial developments to:

* centralise the storage and collection of waste and recycling material;
* cater for the waste generation rates of the development;
* maintain an attractive streetscape; and
* minimise the opportunities for litter, odour, noise and dust pollution.

Purpose

The purpose of these specifications are to:

- Ensure the facility provides adequate sorting and storage areas for the garbage and recyclables generated by the development;
- Ensure the facility is consistent with the building and streetscape;
- Ensure the facility and vehicular access is readily accessible and safe for users and collection service operators; and
- Ensure the facility is sited, designed and constructed to be free from or not to create a nuisance in terms of dust, litter, odour and noise.

Specifications

The Waste Minimisation and Management DCP details when a waste and recycling material storage facility is required.

Size

The size of the waste storage and recycling facility should be determined by calculating the waste generation rates and/or the number of and sizes of garbage and recycling containers (see A5.01 for waste generation rates of commercial uses and/or FD1.01 for residential and commercial waste and recycling receptacle specifications and A6.01 for approved waste storage container sizes). The size of the facility should also be adequate to house any equipment associated with the treatment, storage, recycling or disposal of garbage and provide a reasonable amount of extra space to easily load and manoeuvre the bins in accordance with Workcover Authority requirements.

Location

Residential Subdivision

Applications for residential subdivision (involving no new roads) comprising 6 or less lots should identify a suitable area for a waste collection point at the road frontage.
Applications for residential subdivision (involving no new roads) comprising more than 6 lots should identify a suitable area for a waste collection point at the accessway frontage.

**Dwelling-houses**

Dwelling-houses should be designed to provide a hard stand area of 1m x 2m behind the building line and not within the private open space area to accommodate the MGBs for domestic waste, recyclable materials and green waste.

**Low Density Multi-Unit Housing**

Applications for Low Density Multi-Unit Housing comprising 6 or less dwellings should identify a suitable area for a waste collection point at the road frontage.

Applications for Low Density Multi-Unit Housing comprising more than 6 dwellings should identify a suitable area for a waste collection point at the accessway frontage.

Low Density Multi-Unit Housing should be designed to provide a hard stand area of 1m x 2m behind the building line and not within the private open space area to accommodate the MGBs for domestic waste, recyclable materials and green waste.

**Medium Density Multi-Unit Housing**

Medium Density Multi-Unit Housing developments which comprise of 6 or less dwellings should provide a hard stand area of 1m x 2m not within the private open space area of each dwelling to accommodate the MGBs for domestic waste, recyclable materials and green waste and identify a suitable area for a waste collection point at the road frontage.

Medium Density Multi-Unit Housing developments which comprise of more than 6 but not more than 16 dwellings should provide a communal waste storage and recycling facility in a level position (no greater than 1 in 8) within 6m of the front property boundary.

Where communal waste storage and recycling facilities are inappropriate within 6m of the front property boundary, an internal communal waste storage and recycling facility or garbage and recycling room should be provided. An internal communal waste storage and recycling facility or garbage and recycling room is appropriate where:

- The status of the roadway (heavy traffic) requires on-site access;
- An open air storage and recycling facility would detrimentally impact on streetscape or residential amenity;
- Site characteristics make access to the street difficult for individual unit holders (e.g. Distance > 75m and/or Gradient > 1:8); and
- Such arrangements suit collection services.

**Medium/High Density Multi-Unit Housing**

Medium/High Density Multi-Unit Housing developments which comprise of 16 dwellings or less should provide a communal waste storage and recycling facility in a level position (no greater than 1 in 8) within 6m of the front property boundary.

Where communal waste storage and recycling facilities are inappropriate within 6m of the front property boundary, an internal communal waste storage and recycling facility or garbage and recycling room should be provided. An internal communal waste storage and recycling facility or garbage and recycling room is appropriate where:

- The status of the roadway (heavy traffic) requires on-site access;
- An open air storage and recycling facility would detrimentally impact on streetscape or residential amenity;
- Site characteristics make access to the street difficult for individual unit holders (e.g. Distance > 75m and/or Gradient > 1:8); and
Such arrangements suit collection services.

**Commercial and Industrial Units**

Commercial and industrial building/unit design should either provide a waste storage and recycling area/facility or a garbage and recycling room. Where needs are best met by an individual or communal waste storage and recycling area/facility, building/unit design should incorporate same in a level position (no greater than 1 in 8) to provide for efficient separation of waste and recyclables. Where a development involves multiple occupancy, communal facilities should be provided:

- where the design makes it difficult for all units to have ready access to a collection point; and
- where site characteristics restrict entry of vehicles to individual units.

Waste storage and recycling facilities for commercial and industrial developments should be located to provide efficient access by collectors and collection vehicles. For large developments, a collection area should be located within the development.

**On-site Access**

Adequate on-site access for collection vehicles should be provided to storage and recycling areas and/or facilities, namely:

- The driveway to be traversed by a collection vehicle should be of adequate strength, width and design to carry collection vehicles and loads;
- All developments provide a road design in accordance with the “Roads and Traffic Authority - Guidelines for Traffic Generating Development” for the manoeuvring of Council’s authorised contractors’ vehicles. (see A5.02 for vehicle criteria);
- Collection vehicles should be able to enter or leave premises in a forward direction. A roadway design with through ingress and egress is preferable. If unattainable, adequate turning should be provided in the form of a turning circle or hammerhead design;
- The internal roadway, where designed to be negotiated by the waste collection vehicle, should be generally 4 metres wide, and in particular, where manoeuvring to turn or negotiating a curve, should be minimum of 4.9 metres wide and have a maximum grade of 1 in 6. The internal roadway curves or turning area should have a minimum radius of 11.25 metres;
- An appropriate easement should be created over the proposed collection vehicle access route. (see A5.04); and
- On-site manoeuvrability should not be impaired for site users. Waste storage and recycling facilities/areas should be located so that their use does not interfere with the use of access driveways, loading bays or parking bays.

**Design and Construction**

The design and construction of facilities should incorporate the fire safety and fire resistant provisions of the BCA.

The design, construction and installation of garbage and recycling facilities should prevent the harbourage of vermin. The ceiling of the facility should be finished with rigid, smooth faced, non absorbent material capable of being easily cleaned.

The opening to the facility should be of adequate size to allow easy access for receptacles or containers and permit the re-installation and maintenance of equipment that may be used in the facility. If only receptacles are to be used in the facilities, a minimum width of 820mm should be provided. If containers are to be used in facilities, a minimum width of 1,800mm should be provided. The facility should only be accessed by a ramp (i.e. no steps).
The floor of the facility should be constructed of concrete or other approved material, be at least 75mm thick and be graded and drained to an approved drainage outlet connected to the sewer. The floor of the facility should be finished to a smooth even surface and be coved at the intersection of the walls and plinths.

The walls of the facility should have a minimum height of 1m, be constructed of approved solid impervious material, cement rendered internally to a smooth even surface and be coved at all intersections.

**Racks and Other Equipment**

Where storage and other drainage racks are provided, they should be constructed of galvanised metal or other approved material which is durable, impervious and non-corrosive. Racks should be installed at least 50mm clear of walls with the lowest racks installed at least 300mm above the floor. Racks should be designed to prevent receptacles/containers placed thereon from coming into contact with the walls.

All equipment designed to be in a fixed position in a garbage facility, should be installed in an approved manner, located clear of walls and be supported on:-

- plinths of at least 75mm high, constructed of solid impervious material, finished to a smooth even surface and be coved at the intersection with walls and floors, or

- legs at least 150mm high, constructed of galvanised metal or other approved material which is durable, impervious and non-corrosive.

**Water Supply**

An adequate approved supply of cold water should be provided to the facilities. Hot water should be provided for commercial purposes.

Hose cocks should be protected or located in such a position that they cannot be damaged. A hose which is of adequate length and is fitted with a nozzle should be connected to the hose cock for the cleaning of the facilities.

The facility should be appropriately signposted to minimise waste (see A5.03).

**References**


Resource NSW (February, 2002) Better Practice Guide for Waste Management in Multi-Unit Dwellings
Example of an appropriate waste storage and recycling area and waste collection point for a Medium Density Multi-Unit Housing development which comprises 6 or less dwellings.

Design features of a waste storage and recycling facility.

Example of an appropriate waste storage and recycling facility for a Medium Density Multi-Unit Housing development which comprises more than 6 but not more than 16 dwellings.

(Source: Resource NSW (2002))
Example of a waste storage and recycling facility for a Medium/High Density Multi-Unit Housing development which comprises 16 dwellings or less.

Example of an appropriate waste storage and recycling facility for a commercial and industrial building.

(Source: Resource NSW (2002))

Roads to be negotiated by waste collection vehicle are to be designed to cater for the minimum turning circle and clearance requirements of the relevant waste collection vehicle.

Sample turning circle design

source: AUSTRoads design single unit truck / BUS (12.5m)
scale 1:200 radius 12.5m
ABSOLUTE MINIMUM RADIUS
For use at mandatory stop only, Turning speed up to 5km/h.

Notes:
1. Locate face of kerbs at least 0.6m clear of wheel paths.
2. Allow 0.6m clearance outside path of overhang and ensure that this area is kept free of road furniture.
**GARBAGE AND RECYCLING ROOMS**

**Description**

A garbage and recycling room is a room in the development where garbage and recycling receptacles are stored awaiting reuse or removal from the premises and may also include the collection point. All residents or tenants of the development deposit their waste and recycling material in the containers within the room for collection. The room is required for high density multi-unit housing developments, some medium and medium-high density multi-unit housing developments and some commercial and industrial developments to:

* centralise the storage and collection of waste and recycling material;
* cater for the waste generation rates of the development;
* maintain an attractive streetscape; and
* minimise the opportunities for litter, odour, noise and dust pollution.

**Purpose**

The purpose of these specifications are to:

- Ensure the garbage and recycling room provides adequate sorting and storage areas for the garbage and recyclables generated by the development;
- Ensure the garbage and recycling room and vehicular access to it are readily accessible and safe for users and collection service operators;
- Ensure the garbage and recycling room is sited, designed and constructed to be free from, or not to create a nuisance in terms of dust, litter, odour and noise; and
- Ensure the garbage and recycling room is appropriately sited, designed and constructed to ensure the safety of the buildings occupants.

**Specifications**

**Size**

The size of the facility should be determined by calculating the waste generation rates and/or sizes of garbage and recycling containers (see A6.01 for waste generation rates of commercial uses and/or FD1.01 for residential and commercial waste and recycling receptacle specifications and A5.01 for approved waste storage container sizes). The size of the facility should also be adequate to house any equipment associated with the treatment, storage, recycling or disposal of garbage and provide a reasonable amount of extra space to easily load and manoeuvre the bins in accordance with Workcover Authority requirements.

**Location**

*Medium and Medium/High Density Multi-Unit Housing*

Medium and Medium/High Density Multi-Unit Housing developments comprising more than 16 dwellings should provide an internal communal waste storage and recycling facility or a communal garbage and recycling room.

A garbage and recycling room should be located within the main building and within 10m of the waste collection point. The area between the garbage and recycling room and waste collection point should be of appropriate width and grade (with no steps) to enable the efficient movement of waste materials.
High Density Multi-Unit Housing

High Density Multi-Unit Housing developments should provide a communal garbage and recycling room.

The garbage and recycling room should be located within the main building and within 10m of the waste collection point. The area between the garbage and recycling room and waste collection point should be of appropriate width and grade (with no steps) to enable the efficient movement of waste materials.

Commercial and Industrial Units

Commercial and industrial building/unit design should either provide a waste storage and recycling area/facility or a garbage and recycling room. Where needs are best met by an individual or communal garbage and recycling room, building/unit design should incorporate same and a collection point to provide for efficient separation of waste and recyclables. Where a development involves multiple occupancy, communal facilities should be provided:

- where the design makes it difficult for all units to have ready access to a collection point; and
- where site characteristics restrict entry of vehicles to individual units.

Garbage and recycling rooms and collection points for commercial and industrial developments should be located to provide efficient access by collectors and collection vehicles. For large developments, a collection area should be located within the development.

The garbage and recycling room should be located within the main building and within 10m of the waste collection point. The area between the garbage and recycling room and waste collection point should be of appropriate width and grade (with no steps) to enable the efficient movement of waste materials.

On-site Access

Adequate on-site access for collection vehicles should be provided to storage and recycling areas, namely:

- The driveway to be traversed by a collection vehicle should be of adequate strength, width and design to carry collection vehicles and loads;

- All developments to provide road design in accordance with “Road and Traffic Authority - Guidelines for Traffic Generating Development” for the manoeuvring of Council’s authorised contractors’ vehicles. (see Appendix A5.02 for vehicle criteria);

- Collection vehicles should be able to enter or leave premises in a forward direction. A roadway design with through ingress and egress is preferable. If unattainable, turning should be provided in the form of a turning circle or hammerhead design.

- The internal roadway, where designed to be negotiated by the waste collection vehicle, should be generally 4 metres wide and in particular, where manoeuvring to turn or negotiating a curve, the road should be a minimum of 4.9 metres wide and a maximum grade of 1 in 6. The internal roadway curves or turning area should have a minimum radius of 11.25 metres.

- An appropriate easement should be created over the proposed collection vehicle access route. (See Appendix A5.04).

- On site manoeuvrability should not be impaired for site users. Garbage and recycling rooms should be located so that their use does not interfere with the use of access driveways, loading bays or parking bays.

Design / Construction
The design of the garbage and recycling room should incorporate the fire safety and fire resistant provisions of the BCA.

All fire extinguisher apparatus should be reliable and effective. Fire protection equipment should be maintained in accordance with the relevant Australian Code for fire equipment servicing.

The garbage and recycling room should be constructed in such a manner so that the use and operation of the room does not at any time give rise to offensive noise to the users of the building or adjoining occupiers.

The garbage and recycling room should be constructed in such a manner so as to prevent the entry or harbourage of vermin.

The design of garbage and recycling rooms and the materials used should compliment the design and the materials used in the building. Landscaping should be provided where necessary to screen the facility.

Garbage and recycling rooms should have adequate weather protection for users of the facility.

The doorway opening to the garbage and recycling room should be of adequate size to allow easy access for receptacles or containers and permit the re-installation and maintenance of equipment that may be used in the room. If only receptacles are to be used in the garbage room, a minimum width of 820mm should be provided. If containers are to be used in garbage rooms, a minimum width of 1,800mm should be provided.

The floor of a garbage and recycling room should be constructed of concrete or other approved material, be at least 75mm thick and be graded and drained to an approved drainage outlet connected to the sewer. The floor of the room should be finished to a smooth even surface and be coved at the intersection with walls and plinths.

The ceiling height of a garbage and recycling room should be a minimum of 2.1m. The ceiling of the garbage room should be finished with rigid, smooth faced, non absorbent material capable of being easily cleaned.

The walls of the garbage and recycling room should be constructed of approved solid, impervious material, be cement rendered internally to a smooth even surface and be coved at all intersections.

A close fitting, robust, weather-proof door with a smooth and impervious internal face should be provided to all garbage and recycling rooms. Doors should also be capable of being easily opened.

Garbage and recycling rooms should be constructed in such a manner so as to prevent the entry of vermin.

Where containers are housed in a garbage room:-

- A bump rail, constructed of galvanised metal or other approved material which is durable and impervious should be installed around and be at least 50mm clear of walls. Alternatively, flat sheet iron should be installed flush with the walls.

- Galvanised angle iron should be installed around door openings.

**Lighting**

Garbage and recycling rooms should be provided with artificial light, controlled from a switch located outside the room.

Where necessary, artificial light should be provided outside the garbage and recycling room.

**Ventilation**
Garbage and recycling rooms should be ventilated by:-

An approved system of mechanical exhaust ventilation in accordance with the requirements of the BCA, or

- A permanent unobstructed natural ventilation opening, direct to the external air, having an aggregate area of not less than one-twentieth (1/20th) of the floor area.

**Racks and Other Equipment**

Where storage and drainage racks are provided, they should be constructed of galvanised metal or other approved material which is durable, impervious and non-corrosive. Racks should be installed at least 50mm clear of walls with the lowest racks installed at least 300mm above the floor. Racks should be designed to prevent receptacles/containers placed thereon from coming into contact with the walls.

All equipment designed to be in a fixed position in a garbage room should be installed in an approved manner, located clear of walls and should be supported on: -

- plinths of at least 75mm high, constructed of solid impervious material, finished to a smooth even surface and be coved at the intersection with walls and floors, or
- legs at least 150mm high, constructed of galvanised metal or other approved material which is durable, impervious and non-corrosive.

**Water Supply**

An adequate approved supply of cold water should be provided to all garbage rooms. Hot water should be provided for commercial purposes.

Hose cocks should be protected or located in such a position that they cannot be damaged. A hose which is of adequate length and is fitted with a nozzle should be connected to the hose cock for the cleaning of the receptacles and room.

The room should be appropriately sign posted to minimise waste (See Appendix A5.03).

**References**


Example of a garbage and recycling room for a High Density Multi-Unit Housing development.

Roads to be negotiated by waste collection vehicle are designed to cater for minimum turning circle and clearance requirements of the relevant waste collection vehicle.

Sample turning circle design

Source: AUSTROADS design single unit truck / BUS (12.5m)
Scale 1: 200 radius 12.5m

For use at mandatory stop only. Turning speed up to 5km/h.

Notes:
1. Locate face of kerbs at least 0.6m clear of wheel paths.
2. Allow 0.6m clearance outside path of overhang and ensure that this area is kept free of road furniture.
Description

A refrigerated garbage room is a garbage room which is refrigerated by a cooling system room and is dedicated to the specialised containment of food scraps and perishables. All businesses with specialised storage needs should deposit their waste in the containers within the room for collection.

Purpose

The purpose of these specifications are to:

- Ensure a refrigerated garbage room provides special features to ensure it is safe for users and collectors.

Specifications

A refrigerated garbage room should be provided for commercial and industrial developments where:

- There are large volumes of food scraps and perishables (such as seafood); and
- Infrequent collection is arranged.

In addition to the specifications for garbage rooms (see FD1.03), the following matters are required to be addressed.

Design/Construction

A door which can at all times be opened from the inside without a key should be provided to all refrigerated garbage rooms. Doors should be capable of being easily opened and have a smooth and impervious internal face.

Ventilation

Where a garbage room is refrigerated by a cooling system that maintains the room temperature at or below 10°C, the provision of mechanical or natural ventilation is not required.

Safety Devices

Refrigerated garbage rooms should be provided with an approved storm device, located outside but controlled only from within the room (see also Code of Practice for Compactor’s, developed by the Work Cover Authority of NSW).

Racks and Other Equipment

Where possible, pipes should be concealed in the floor, walls or ceiling. Where this is not possible, pipes should be fixed on brackets so as to provide at least 25mm clearance between the pipe and any wall or ceiling surface and 100mm between the pipe and the floor or any plinth.

References

GARBAGE CHUTE SYSTEMS

Description

A garbage chute system moves garbage and recyclables from individual units or dwellings by gravity to a centralised garbage and recycling room. The system comprises all the components to make a garbage chute operative and includes the garbage chute, loading hoppers, the canopy, service openings and service compartments.

Purpose

The purpose of these specifications are to:

- Require a garbage chute system to be provided in residential, commercial or industrial buildings where deemed necessary;
- Ensure a garbage chute, associated hoppers and service openings is of appropriate size, design and materials for the volume of materials generated by the development and to ensure the unimpaired flow directly to facilities in the garbage room;
- Ensure a garbage chute system provides ventilation in accordance with the BCA, adequate weather protection and no airflow into service compartments;
- Ensure a garbage chute system is designed to provide a safe and healthy environment for the occupants of the building and users of the waste management facilities;
- Ensure a garbage chute system is designed to be easily cleaned and maintained; and
- Ensure a garbage chute system is designed to provide adequate space to enable source separation and storage of recyclables.

Specifications

General Requirements

A garbage chute system should be provided in buildings exceeding three (3) storeys of flats. In buildings other than residential buildings where approved means of transporting garbage is not provided, a garbage chute should be required. Care should be taken to ensure the equipment is capable of holding the garbage likely to be generated without overflowing. In multi-storey developments or buildings where a large amount of waste is operated, a second chute or chutes may be required.

Garbage chute systems should incorporate the fire safety and fire resistant provisions of the BCA. All fire extinguisher apparatus should be reliable and effective. Fire protection equipment should be maintained in accordance with the relevant Australian Code for fire equipment servicing.

An appropriate management system for handling systems should be provided in accordance with Workcover Authority requirements.

Garbage chute systems should be constructed so that the use and operation of the system does not at any time give rise to offensive noise to the users of the building or adjoining occupiers.

A garbage chute system should be constructed in such a manner as to prevent the entry or harbourage of vermin.

A garbage chute system should not be used for the transportation of manure, ashes, offal or other offensive material arising from a trade or industry. Such material should be disposed of in a manner approved by Council.

Specification FD2.01
Location and Construction of Garage Chutes

Chutes should be constructed of aluminium, stainless steel or other approved material which is smooth faced, resistant to distortion, durable, fire resistant, impervious and non-corrosive. Metal chutes should be not less than 1.6mm thick. In buildings of substantial height the thickness of the chute, particularly at its base, may need to be increased.

Chutes should be enclosed in an approved acoustic material.

Service Openings

Service openings should be constructed of aluminium, stainless steel or other approved material which is smooth faced, resistant to distortion, durable, fire resistant, impervious and non-corrosive.

Service openings should be fitted with an approved loading hopper.

Service openings should be not less that 1000mm or more than 1500mm above floor level.

Service openings should have an area of not more than 60% of the cross sectional area of the chute or have a diagonal measurement that does not exceed the diameter of the chute.

Service openings should be provided with an appropriate sprinkler system in accordance with the BCA.

Construction and Location of Service Compartments

A service compartment should be provided adjoining every service opening.

An appropriate number of recycling bins should be provided in the service compartment.

Service compartments should be of adequate size to enable source separation and storage of recyclables in accordance with Workcover Authority requirements. An appropriate management system should be provided for handling recyclables.

Service compartments should have a minimum floor area of $1m^2$ with minimum dimensions of not less than 800mm.

The floor of service compartments should be constructed of concrete or other approved solid impervious material, be at least 75mm thick, be finished to a smooth impervious surface and be coved at the intersection with walls.

The walls of service compartments should be constructed of approved solid impervious material, be cement rendered internally to a smooth even surface and be coved at all intersections.

The ceilings of service compartments should be finished with rigid, smooth faced non-absorbent material capable of being easily cleaned.

Service compartments should be constructed in such a manner as to prevent the entry of vermin.

A close fitting, self closing, one hour fire rated door which can at all times be opened from the inside, should be provided to all service compartments. An appropriate sprinkler system should be provided in accordance with the BCA.

Service compartments should be well ventilated and provided with artificial lighting controlled from outside the room.

Chutes should be cylindrical in section, have a minimum internal diameter of not less than 500 mm and rise without offsets or bends from the garbage room to the top floor ceiling line.
Chutes should be constructed so that any internal overlaps are in the direction of the garbage flow. All internal joints and seams should be finished to a smooth even surface and be waterproofed. The number of joints should be minimal.

Chutes should have branches to loading hoppers not exceeding 1,000mm in length and be angled so as to allow free flow of garbage into the chute.

Chutes should have branches to loading hoppers designed so as to prevent the ricochet of falling material or persons reaching into the chute.

Chutes should be provided with an approved cut-off door at or near the base of the chute to close off the chute to allow the movement of the container or compacting equipment while maintenance is being carried out. The required fire damper may be of sufficient gauge to also act as a cut-off damper.

Chutes should be supported at each floor by mountings which prevent the transfer of noise and vibrations to the building frame or slabs.

Chutes should be completely enclosed in a shaft constructed of brickwork or concrete, be sealed and fitted at the lowest floor slab level.

Chutes and hoppers should be contained in a service compartment or room so as to not open directly into a habitable area.

Chutes should terminate in the garbage room and discharge directly into a receptacle or garbage compactor in a position where it will not cause any nuisance.

Chutes should extend above roof level without a reduction in diameter and be fitted with an approved mesh. Approved means of weather protection may be fitted, however, this must not impede the upward flow of air.

Chutes should be easily accessible from each habitable floor and be provided with operation and maintenance instructions of the equipment displayed in a convenient position.

An appropriate sprinkler system should be provided at the top of the chute.

**Cleaning and Maintenance**

Approved facilities for cleaning and maintenance should be provided for all chutes, chute branches and hoppers and include:

- an inbuilt cleaning brush to enable periodic brushing of the chute’s internal surface; and

- a water supply point located at the top of the chute for cleaning purposes with a control cock located in the garbage or compacting room.

**Ventilation**

Chutes should be ventilated to ensure that:

- air does not flow from the chute through any service opening;
- the flow of air in the chute does not impede the downward movement of garbage; and
- adequate ventilation is provided between the chute and the enclosing walls of the shaft.

**Loading Hoppers**

Loading hoppers should be constructed of aluminium, stainless steel or other approved material which is smooth-faced, resistant to distortion, durable, fire resistant, impervious and non-corrosive.
Loading hoppers should be designed to close off the service opening in the chute when the device is opened during loading.

Loading hoppers should automatically return to the closed position after use.

Loading hoppers should not extend into the chute, permit the free flow of garbage into the chute and permit easy cleaning of the device and chute branch.

Loading hoppers should be designed so as to prevent spillage of liquid or solid waste back into the service compartment.

References


Example of a garbage chute system for a building containing more than 3 storeys.

(Source: Resource NSW (2002))
VOLUME HANDLING AND REDUCTION EQUIPMENT

Description

Volume handling and reduction equipment is machinery that reduces the volume of material and includes shredding, pulverising and compressing devices.

Purpose

The purpose of these specifications are to:

- Require volume handling and reduction equipment to be installed to maximise sorting and storage space and to minimise the disposal costs associated with transportation and landfill;
- Ensure volume handling and reduction equipment is of the appropriate type to ensure the safety and amenity of users of the building and occupants of adjoining premises; and
- Ensure adequate instructions for volume handling and reduction equipment is installed to enable the correct operation and maintenance of the equipment.

Specifications

General Requirements

In every residential building which is required to be provided with a chute system, an approved system of volume handling or reduction should be installed in the garbage room if the number of units and/or separate domiciles servicing the chute exceeds 20.

Care should be taken to ensure the equipment is capable of holding the garbage likely to be generated without overflowing. In multi-storey developments or buildings where a large amount of waste is operated, a second chute or chutes may be required.

Volume handling and reduction equipment such as shredders, compactor’s, carousels, vary in size and capacity and consultation with manufacturers required before an area can be allocated.

An approved system of volume handling or reduction may be required to be installed in an approved position in buildings due to the nature or volume of garbage arising on the premises.

The design of volume handling and reduction equipment should incorporate the fire safety and fire resistant provisions of the Australian Building Code. All fire extinguisher apparatus should be reliable, effective and protection equipment should be maintained in accordance with the relevant Australian Code for fire equipment servicing.

Volume handling and reduction equipment should be of a type approved by the NSW Health Department.

Volume handling and reduction equipment should operate automatically.

All electric controls should be physical separated from the main chute and/or volume handling or reduction equipment to reduce restoration after fire damage.

Volume handling and reduction equipment should be installed clear of walls and be located so as to allow adequate space for maintenance and operation.

Adequate instructions advising of the correct operation and maintenance of the equipment should be displayed in a convenient position near the equipment. Equipment should not be used on different
recyclable materials. Removing contaminants from compacted recyclables is almost impossible and compacted loads containing any contaminants will be rejected by markets.

Individual waste disposal unit/s may be permitted to be installed in units. Waste disposal unit/s should be of a type approved by the NSW Health Department.

The volume handling and reduction equipment should be of appropriate type and installed in such a manner as to prevent the entry or harbourage of vermin.

References


Rotational bag carousel with compactor

Static compactor with skip bin

Examples of appropriate volume handling and reduction equipment.

Source: Resource NSW (2002)
Best Practice to promote the minimisation and management of garden, household, commercial and industrial wastes.

O1.0 GARDEN WASTE
O1.01 Re-use and Recycling of Garden Waste

O2.0 RECYCLING HOUSEHOLD WASTE IN THE GARDEN
O2.01 Mulching
O2.02 Composting
O2.03 Worm Farming

O3.0 RESIDENTIAL WASTE MANAGEMENT
O3.01 Household Recycling
O3.02 Waste Collection Services

O4.0 COMMERCIAL AND INDUSTRIAL WASTE MANAGEMENT
O4.01 Waste Audits and Waste Minimisation Plans
RE-USE AND RECYCLING OF GARDEN WASTE

Description

The reuse and recycling of garden waste involves the reuse and recycling of waste from trees, shrubs and lawn.

Purpose

The purpose of the best practice is to promote the reuse and recycling of grass clippings and prunings as mulch or compost.

Best Practice

Recycling Lawn Clippings

Lawn clippings should be recycled as compost or mulch. Being high in nitrogen and moisture and quick to decompose, recycling clippings on site will benefit your garden.

Mix grass clippings with coarse materials to keep them from clumping in the compost heap.

Add clippings to a compost heap in thin layers of up to 6cm. Grass is best composted while still fresh.

Grass clippings as mulch reduces water loss and provide nutrients to your garden. It is unwise to use clippings from a lawn that has weeds or when weed killer has been used.

Do not place too close to plant stems.

The following steps should be observed when recycling grass clippings:

- Mix with leaf litter, twigs or bark to avoid clumping;
- Let the mixture partly break down before using it as a mulch;
- Add nitrogen such as well-rotted manure or compost in a one-to-ten ratio to minimise temporary nitrogen loss from the soil;
- Mulch soil early spring before it has time to warm up;
- Water area before applying mulch;
- Apply the mulch around trees and shrubs to a depth of 75 to 100mm.

Reuse and Recycling of Tree and Shrub Waste

Pruning off and leaves that have been dropped by trees and shrubs should be chopped up finely and used as mulch, composted or placed in worm farms. The organic material should be used throughout the garden.

(Source: New South Waste Boards (1999))

References


Go grasscycling!
The cheapest and easiest way to recycle your lawn clippings is to leave them on the lawn after mowing.
MULCHING

Description

Mulching is a method for the recycling of garden and household wastes in the garden to improve soil quality, growing conditions and to reduce the use of water and chemical fertilisers.

Purpose

The purpose of the best practice is to promote the recycling of garden and household waste products for use as mulch.

Best Practice

Mulch is the reuse of various materials, including garden and household wastes in the garden.

Mulch can be used to reduce the compaction of the soil to improve water retention and air movement.

Mulch can be used to provide a natural slow release nutrient source and to promote soil microbial activity.

Mulch can be used to help improve growing conditions by regulating soil temperature, reducing water loss through evaporation and suppressing weed growth.

What can be Used as Mulch?

Mulch can include the following garden and household waste products:

- **Woodchips** - Long lasting mulch (2 years). Can be toxic to plants if not aged or composted. Does not feed plants. Use over manure mulch.
- **Leaf Mulch** - Blends well with native gardens. Needs to be renewed twice a year. Does not feed plants and can become matted and stop water penetration.
- **Forest Mulch** - Wood waste with some leaves. Long lasting (1-2 years).
- **Grass Mulch** - Wet or dry grass requires the addition of organic nitrogen to minimise temporary nitrogen loss in soils.
- **Newspapers** - Innovative use of household waste. Requires the addition of organic nitrogen to minimise temporary nitrogen loss in soils.
- **Stones and Gravel** - Good for arid plants.

How to Make Mulch

Fresh materials such as grass or leaves can be composted or left to partially breakdown. Mix one part compost, worm castings or rotten manure to ten parts of mulch.

Small prunings and non-invasive plants can be directly used as mulch. Their pruning can be shredded with a lawn mower. For larger branches use a commercial mulcher.

How to Apply Mulch

The procedures for **mulching garden beds** are:
• clear around plants by removing weeds and other debris;
• turn the soil over and break up hand packed surfaces;
• drench the soil surface around plants to encourage plants to develop deep roots;
• sprinkle a few handfuls of compost to encourage healthy plant growth; and
• apply mulch to a depth of 8 cm and avoid applying mulch too close to the stems and trunks of
  the plants.

Sheet mulching prepares an area for planting without the need to weed or dig. The procedures for
sheet mulching are:

• cover the area with five sheet thick newspaper and leave for a week or two;
• to plant, remove cover, plant into compost and mulch heavily.

**Reusing Lawn Clippings**

Lawn clippings should be reused by letting them fall as mulch. The following procedures can be
followed to effect the reuse of lawn clippings.

• keep the mower blades sharp to ensure finer clippings that break down quicker;
• set the mower to a high setting so that only the top third of the grass is cut;
• mow lawn when it is dry to allow clippings to filter to the ground without clumping;
• leave the catcher off when mowing;
• mulching mowers are specially designed to recut into fire pieces that break down easier;
• recycle tall grass or wet clippings.

(Source: New South Waste Boards (1999))

**References**


The many benefits of mulch

- Helps to keep the weeds down. That’s less work for you.
- Provides nutrients.
- Reduces soil erosion and soil compact around plants.
- Leaving grass clippings on the lawn saves on expensive fertilisers.
- Mulching around plants keeps the roots cool in summer and warm in winter and helps maintain moisture.
- Less watering.
Description

Composting is the biological decay process that converts organic wastes into crumbly earth-like substance. This improves the soil structure and produces vigorous disease free plants.

Purpose

The purpose of the best practice is to promote the recycling of garden and household waste products for use as compost.

Best Practice

Mulch can be used to increase the aeration of compacted soil, improve the drainage in heavy clay soil and increase the water holding capacity of sandy soils.

Compost can be used to reduce soil salinity and prevent the crusting of silty soils.

Compost can be used to insulate soil against temperature extremes and increase soil microbial activity.

What can be Composted

Any plant or animal waste can be composted, including food scraps, newspapers, grass, prunings, manures and weeds. Animal products need to be composted in a well managed hot heap. Dog and cat manures are best buried in the garden as they can be a source or parasites.

How to Make Compost

The procedures for making compost are:

- Choose a site: - on soil with a slight slope for drainage preferably in a sunny site;
- Choose a composting system: - an open heap;
  - an enclosure; or
  - a compost bin.
- Collect organic materials including:
  - coarse plant materials, pruning, old plants, weeds, leaves;
  - household food scraps;
  - mown grass catchings;
  - chook manure;
  - rich soil.
- Layer: - Coarse material scraps and grass in layers between 2-8 cm thick. The manure and soil layers need only be 1-2 cm thick. The steps to layering are as follows:
  - begin with a layer of coarse material and add water;
  - Add a layer of scraps and water;
  - Add a layer of grass and water;
  - Add a layer of soil and water;
- repeat the process until the bin is full or a full heap has been created;

- Turn:
  - the compost heap or contents in the compost bin 2 weeks after its making and then once per week until finished.
  - the compost heap should be mixed with a fork / shovel making sure the compost does not dry out or get too wet;
  - the non smelling compost will be ready in 6 – 8 weeks.

**How to Use Compost**

The procedures for the use of compost are:

- Use as potting mix for seedlings or around plants;
- Add a 2-5 cm layer around the drip line of trees;
- Apply twice a year to Australian natives;
- Spread thinly once or twice a year as top dressing for lawns.

(Source: New South Waste Boards (1999))

**References**


Composting is natural and inexpensive. It's great for soil and the garden.

(Source: Northern Sydney Waste Board (2000))
WORM FARMING

Description
Worm farming is a method in which worms decompose household food scraps into worm castings. Worm castings can be used to provide a rich natural soil conditioner.

Purpose
The purpose of the best practice is to promote the recycling of household food scraps by their decomposition in worm farms and the use of worm castings.

Best Practice
What can be Used in Worm Farms
Any household plant based food scraps, shredded newspaper and most compost can be used in a worm farm.

How to Set Up a Worm Farm
The procedures for establishing a worm farm are:

• You can use small containers with drainage or purchase a commercially produced worm farm;
• Purchase red or tiger worms through nurseries, by post or look under “worms” in the telephone directory;
• Start with about 1,000 worms;
• Bed the worms in a mixture of shredded newspaper and finished moist compost;
• Add the worms to the surface of the bedding and cover the bin with a natural material;
• Leave them for a week to get used to their new home;
• Store the bin away from extreme temperatures;
• Add food scraps to the top of the bedding;
• Add more scraps when the worms are finished eating these;
• Harvest the worm castings, empty the worms and bedding onto a surface and scrape castings from the outside as the worms will mound towards the centre; and
• Use the ball of worms for a new bedding.

How to Use Worm Castings
Worm castings can be used as:

• plant food – add 3-6 cm layer around plants and drip line of trees and cover with mulch; and
• as a potting mix – add 10-20% castings to a poor potting mix.

(Source: New South Waste Boards (1999))

References
HOUSEHOLD RECYCLING

Description
Household recycling involves the recycling of domestic waste materials.

Purpose
The purpose of the best practice is to promote the recycling of household waste materials by source separation and placement in the appropriate manner for collection.

Best Practice
Recycling provides great benefits to our community. It helps save resources, protects the environment, conserves tipping space and saves money by reducing disposal costs at tips. Many household wastes can be recycled. Council is committed to recycling and provides a recycling service.

Recycling
Recyclable products should be placed in your recycling bin (Yellow Lid) on collection day. Council collects the following recyclable products:

- Milk cartons and tetra packs;
- Steel cans and empty aerosols;
- Aluminium cans;
- Plastic food and beverage containers numbered 1, 2, 3, 4 or 5 within the recycling logo. Lids can be included but need to be removed from the containers;
- Glass jars and bottles. Lids can be included but need to be removed from the containers; and
- Clean paper and cardboard including newspapers, magazines, phone books, clean and empty pizza boxes.

Green Waste
Green waste should be placed in your green waste bin (Green Lid) on collection day. Council collects the following green waste:

- Bushes and prunings cut into maximum lengths of 1.2m (4ft); and
- Vegetative matter with a maximum diameter of 75mm.

Kerbside Clean-up
Bulky household rubbish should be placed at the kerbside on collection day. Council collects the following bulky household rubbish:

- Household rubbish up to 2m$^3$ capacity with a maximum weight of any one item being 30kg including furniture, fridges, beds, toys and appliances.

Council does not collect the following bulky rubbish:

- Builder's waste or demolition material;
- Old paint and oils - can be taken to Wicks Road Transfer Station, North Ryde; and
- Old batteries - can go to Goodyear in Hunter Street, Hornsby.
For details phone Council’s Waste Management Team on 9847 4856 between 8.30am and 5.00pm Monday to Friday.

References

Hornsby Shire Council (2002) New Waste Collection Service – It’s not such a prickly problem.
WASTE COLLECTION SERVICES

Description
Council’s residential waste collection services include the collection of domestic waste, recyclable materials and green waste. A kerbside clean-up service is also provided.

Purpose
The purpose of the best practice is to promote details of Council’s residential waste collection services.

Best Practice
Council’s residential waste collection services varies depending on where you live. Council will operate the following waste services for:

**Dwelling-houses and Low and Medium Density Multi-unit Housing Developments in Urban Areas**
- Weekly collection of a 140 litre mobile garbage bin for domestic waste;
- Fortnightly collection of a 240 litre mobile garbage bin for recyclable materials;
- Fortnightly collection of a 240 litre mobile garbage bin for green waste; and
- Twice yearly kerbside clean up.

**Medium/High Density Multi-unit Housing**
- Weekly or twice weekly collection of a mobile garbage bin for domestic waste (depending on the size of the bin);
- Weekly collection of a mobile garbage bin for recyclable materials;
- An optional user pays green waste service; and
- Monthly kerbside clean up.

**High Density Multi-unit Housing**
- Up to five day/week collection of 660 litre mobile garbage bin/s or approved containers for domestic waste; and
- Up to a two day/week collection of a 240 litre mobile garbage bin/s for recyclable materials.

**Dwelling-houses and Low Density Multi-unit Housing Developments in Rural Areas**
- Weekly collection of a 140 litre mobile garbage bin for domestic waste;
- Fortnightly collection of a 240 litre mobile garbage bin for recyclable materials; and
- Twice yearly kerbside clean up.

**Dwelling-houses on Dangar Island**
- Twice weekly collection of a 55 litre garbage bin for domestic waste;
- Weekly collection of a 55 litre garbage bin for recyclable materials;
- Fortnightly collection of tied and bundled or bagged green waste; and
- Twice yearly kerbside clean up.
Dwelling-houses in River Settlements

- Several 660 litre mobile garbage bins kept in the lock up enclosure at Berowra Waters;
- Several 240 litre mobile garbage bins for recyclable materials kept in the lock up enclosure at Berowra Waters; and
- Twice yearly kerbside clean up.

For further information on Council’s residential garbage collection services, please phone Council’s Waste Management Team on 9847 4856 between 8.30am and 5.00pm Monday to Friday.

References

Hornsby Shire Council (2002) New Waste Collection Service – It’s not such a prickly problem.
WASTE AUDITS AND WASTE MINIMISATION PLANS

Description

A waste audit is a review of the composition of the various types of waste that find their way into the waste stream. A waste minimisation plan utilises the data obtained from a waste audit to develop strategies to best manage commercial operations and promote waste avoidance, waste reduction, material reuse and the recycling of waste.

Purpose

The purpose of the best practice is to identify manuals and services which detail waste audit procedures and waste minimisation plans.

Best Practice

Council’s residential waste collection services for Commercial and Industrial Units includes a:

- Daily collection of a mobile garbage bin for commercial or industrial waste; and
- Daily collection of a mobile garbage bin for recyclable materials.

Commercial and industrial waste accounts for a substantial component of Sydney’s waste. The largest contributors to commercial and industrial waste are food retailers, other businesses, manufacturing and transport operations and the hospitality sector (e.g. hotels, cafes and restaurants). Much of this waste can be composted and recycled.

Resource NSW has developed a number of initiatives to reduce commercial and industrial waste, including the development of a commercial and industrial waste management manual and the establishment of a waste audits and advisory service.

Commercial and Industrial Waste Management Manual

The Commercial and Industrial Waste Management Manual - “Waste Makes No Cents” provides a self help guide to assist small and medium sized businesses and industries conduct their own waste audits and to consider alternative approaches to reducing waste in the workplace. The complete manual consists of 6 modules and 4 fact sheets. The modules are based on five key steps and have been tailored to business needs by consultation with a number of industry groups, namely: restaurants and cafes, fast food outlets, offices, home and personal retailing and accommodation.

The five key steps for waste minimisation and management contained in the modules are equally applicable to other businesses which weren’t consulted in the preparation of the Manual and are as follows:

- Step 1: Current Waste Services – What’s in place and who does it?
- Step 2: Waste Characterisation – What type of waste do you produce?
- Step 3: Waste Reduction Action Plan – What actions are you going to take to reduce your waste?
- Step 4: Establish Your Waste Reduction Targets.
- Step 5: Review and Monitor.
The Manual will help you find out:

- What you are really throwing out in your waste and how much it is costing you;
- How to develop an effective plan to reduce your waste and save you money;
- What the Government is doing to reduce waste and how this impacts on you;
- What your responsibilities are; and
- How to make staff, suppliers and customers help you to reduce your waste.

Waste Makes No Cents is available for purchase from Resource NSW. For further information, contact Resource NSW on 8837 6000.

**Waste Audits and Advisory Service**

The Waste Audits and Advisory Service is being established by Resource NSW to assist small and medium sized businesses with conducting a waste audit and implementing their own waste minimisation and management plan.

Resource NSW has also prepared a series of papers providing useful information about the waste audit process. The paper titled “Obligations of the Waste Auditor Employer” details the responsibilities of waste audit person/organisation/body which employ and utilise certified waste auditors. The paper titled “Waste Auditor Competencies and Responsibilities” addresses the skills and competencies required of a waste auditor to satisfy certification as developed by Resource NSW.

For further information, contact Resource NSW on 8837 6000.

**References**

Appendices which correspond with the Waste Minimisation and Management DCP and Guide to ensure effective waste management.

A1.0 WASTE MANAGEMENT PLAN
A1.01 Waste Management Submission Checklists
A1.02 Recycling / Reuse of Solid Waste Materials
A1.03 Waste Management Centres

A2.0 DEMOLITION OF BUILDINGS
A2.01 Approximate composition of Sydney Demolition / Refurbishment Materials
A2.02 Precautions and Procedure for the Disposal of Asbestos from Buildings
A2.03 Control of Placement of Waste Containers in a Public Place

A3.0 DESIGN OF BUILDINGS
A3.02 Ecological Sustainability of Building Materials

A4.0 CONSTRUCTION OF BUILDINGS
A4.01 Estimates of Waste Materials in the Construction of a Dwelling

A5.0 WASTE FACILITY DESIGN
A5.01 Waste Storage Container Sizes
A5.02 Garbage Vehicle Characteristics
A5.03 Recycling Notice
A5.04 Notes on and Terms of Easements

A6.0 ON-GOING WASTE MANAGEMENT
A6.01 Waste Generation Rates
A6.02 Code for the Storage and Transportation of Contaminated Infectious Waste

A7.0 MISCELLANEOUS
A7.01 Definitions and Abbreviations
A7.02 References
## WASTE MANAGEMENT SUBMISSION CHECKLISTS

The following checklist details the information to be included on drawings for the various activities and land uses. Submission requirements should be checked against information which is submitted.

### CHECKLIST 1: Details to be shown on Drawings

<table>
<thead>
<tr>
<th>Land Use or Activity Proposed</th>
<th>Submission Requirements</th>
<th>Submitted (✓)</th>
</tr>
</thead>
</table>
| Demolition, including major renovations and excavation. | - on site sorting and storage areas  
- access for vehicles to and on construction site | (   ) |
| Residential Subdivision (where involving more than 6 lots) | - location of waste storage and recycling areas and collection area  
- access for garbage collection vehicles (where necessary – i.e. more than 6 lots)  
- on site sorting and storage areas  
- access for vehicles to and on construction site | (   ) |
| Dwelling Houses and Low Density Multi-Unit Housing, Class 1a buildings as defined in Part A of the BCA | - waste cupboard space  
- a composting area  
- location of waste storage and recycling areas and collection area  
- access for garbage collection vehicles (where necessary – i.e. more than 6 dwellings)  
- on site sorting and storage areas  
- access for vehicles to and on construction site | (   ) |
| Medium, Medium/High and High Density Multi-Unit Housing, Class 1a and 2 buildings as defined in Part A of the BCA | - waste cupboard space  
- a collection area, waste storage and recycling facility or garbage and recycling room  
- a chute system or volume reduction equipment, where appropriate  
- access for garbage collection vehicles (where necessary – i.e. where waste storage facilities are inappropriate at street frontage)  
- on site sorting and storage areas  
- access for vehicles to and on construction site | (   ) |
| Residential Accommodation, including: boarding houses, guest houses, hostels, lodging houses and backpackers accommodation, Class 1b, 3 and 4 buildings as defined in Part A of the BCA | - waste cupboard space eg. in staff kitchen  
- waste storage and recycling area or garbage and recycling room  
- a collection area, chute system or volume reduction equipment, where appropriate  
- access for garbage collection vehicles (where necessary – i.e. where site characteristics dictate)  
- on site sorting and storage areas  
- access for vehicles to and on construction site | (   ) |
| Commercial and Industrial Development, including: shops; offices; restaurants; industry; health care and assembly buildings (eg. schools), Class 5, 6, 7, 8, 9a and 9b buildings as defined in Part A of the BCA | - waste cupboard space eg. in staff kitchen  
- waste storage and recycling area or garbage and recycling room  
- a collection area, chute system or volume reduction equipment, where appropriate  
- access for garbage collection vehicles (where necessary – i.e. where site characteristics dictate)  
- on site sorting and storage areas  
- access for vehicles to and on construction site | (   ) |
The following checklist identifies the applicable sections of the Waste Management Plan which are required to be completed and submitted to satisfy the requirements of the Waste Minimisation and Management DCP. Submission requirements should be checked against information which is submitted.

CHECKLIST 2: Waste Management Plan (WMP)

<table>
<thead>
<tr>
<th>Land Use or Activity Proposed</th>
<th>Submission Requirements</th>
<th>Submitted (✓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition, including major renovations and excavation.</td>
<td>• Complete Section 1 of the WMP</td>
<td>( )</td>
</tr>
<tr>
<td>Residential Subdivision (where involving more than 6 lots).</td>
<td>• Complete Section 1 of the WMP</td>
<td>( )</td>
</tr>
<tr>
<td>Dwelling Houses and Low Density Multi-Unit Housing. Class 1A buildings as defined in Part A of the BCA</td>
<td>• Complete Section 2 and 3 of the WMP</td>
<td>( )</td>
</tr>
<tr>
<td>Medium, Medium/High and High Density Multi-Unit Housing. Class 1A, Class 1B, Class 2, Class 3 and Class 4 buildings as defined in Part A of the BCA</td>
<td>• Complete Section 2, 3 and 4 of the WMP</td>
<td>( )</td>
</tr>
<tr>
<td>Residential Accommodation, including: boarding houses, guest houses, hostels, lodging houses and backpackers accommodation. Class 1b, 3 and 4 buildings as defined in Part A of the BCA</td>
<td>• Complete Section 2, 3 and 4 of the WMP</td>
<td>( )</td>
</tr>
<tr>
<td>Commercial and Industrial Development, including: shops; offices; restaurants; industry health care and assembly buildings (eg. schools). Class 5, 6, 7, 8 and 9 buildings as defined in Part A of the BCA</td>
<td>• Complete Section 2, 3 and 4 of the WMP</td>
<td>( )</td>
</tr>
</tbody>
</table>

# Recycling/Reuse of Solid Waste Material

The table below provides suggestions for the recycling and reuse of solid waste materials.

<table>
<thead>
<tr>
<th>Material</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate</td>
<td>Reuse or recycle for filling, levelling in materials and road base.</td>
</tr>
<tr>
<td>Aluminium doors, windows, fittings</td>
<td>Reuse for second hand building materials Reprocess material.</td>
</tr>
<tr>
<td>Asbestos Sheeting</td>
<td>N/A (Do not reuse or recycle)</td>
</tr>
<tr>
<td>Asphalt &amp; Bitumen</td>
<td>Reuse or recycle for use in road repairs, road surfacing</td>
</tr>
<tr>
<td>Autoclaved Aerated Concrete (AAC)</td>
<td>Recycle for use as cat litter, oil binder and road base</td>
</tr>
<tr>
<td>Carpet Underlay (synthetic &amp; rubber)</td>
<td>Recycle for use as safety barriers, speed humps, packaging (i.e. product protection)</td>
</tr>
<tr>
<td>Carpet</td>
<td>Reprocessed into carpet or packaging (i.e. product protection)</td>
</tr>
<tr>
<td>Concrete</td>
<td>Reuse or recycle for use as filling, levelling materials, road base</td>
</tr>
<tr>
<td>Clay bricks, pavers</td>
<td>Cleaned and/or rendered over for reuse, recycle to be used for aggregates, fill or paving gravel</td>
</tr>
<tr>
<td>Ceramics and Tiles</td>
<td>Sanitary-ware is capable of reuse. Recycle for use as aggregate and use as decorative landscape materials.</td>
</tr>
<tr>
<td>Flooring Products</td>
<td>Reuse “floating” timber flooring as second hand building materials.</td>
</tr>
<tr>
<td>Glass &amp; Glazing</td>
<td>Reuse glazing for second hand building materials. Recycle for use as aggregate for concrete production.</td>
</tr>
<tr>
<td>Green waste</td>
<td>Mulching, composting for reuse as landscaping/fertiliser</td>
</tr>
<tr>
<td>Insulation Products</td>
<td>Some insulation materials are capable of being reused as second hand building materials or recycled via reprocessing.</td>
</tr>
<tr>
<td>Lead, zinc and copper products</td>
<td>Reuse copper, brass and zinc sheeting and plumbing fixtures as second hand building materials or recycle reprocessing</td>
</tr>
<tr>
<td>Paper &amp; Cardboard</td>
<td>Recycle via reprocessing</td>
</tr>
<tr>
<td>Plasterboard</td>
<td>Recycle via reprocessing to new plasterboard or gypsum can be used as an additive to soil.</td>
</tr>
<tr>
<td>Plastics (Pet, HPDE, LPDE)</td>
<td>Recycle via reprocessing</td>
</tr>
<tr>
<td>Roof tile</td>
<td>Reuse or recycle by crushing for use as landscaping and driveways.</td>
</tr>
<tr>
<td>Soils (overburden)</td>
<td>Reuse by power screening for topsoil</td>
</tr>
<tr>
<td>Steel frames &amp; fixtures</td>
<td>Reuse beams, studs and roofing or recycle via reprocessing.</td>
</tr>
<tr>
<td>Stones for Building</td>
<td>Reuse for second hand building materials</td>
</tr>
<tr>
<td>Timber (hardwood beams)</td>
<td>Reuse for floorboards, furniture and fencing.</td>
</tr>
<tr>
<td>Timber (Softwood &amp; Engineered products)</td>
<td>Re-use for formwork, bridging, clocking and propping.</td>
</tr>
<tr>
<td>Timber doors, windows and fittings</td>
<td>Reuse for second hand building materials</td>
</tr>
</tbody>
</table>

Source: The Combined Sydney Region Organisations of Councils (February, 1996) and TAFE NSW (1997).

N.B. This list is not exhaustive. Innovative re-use and recycling techniques should also be pursued where viable.
WASTE MANAGEMENT CENTRES

WASTE MANAGEMENT CENTRES - TRANSFER STATIONS

<table>
<thead>
<tr>
<th>Address</th>
<th>ARTARMON</th>
<th>AUBURN</th>
<th>CHULLORA*</th>
<th>ROCKDALE</th>
<th>RYDE</th>
<th>SEVEN HILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artarmon</td>
<td>Lanceley Place</td>
<td>Hill Road</td>
<td>Muir Road</td>
<td>Lindsay Street</td>
<td>Wicks Road</td>
<td>Powers Road</td>
</tr>
<tr>
<td>Auburn</td>
<td>Artarmon</td>
<td>Auburn</td>
<td>Chullora</td>
<td>Rockdale</td>
<td>North Ryde</td>
<td>Seven Hills</td>
</tr>
<tr>
<td>CHULLORA*</td>
<td>Muir Road</td>
<td>Chullora</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCKDALE</td>
<td>Lindsay Street</td>
<td>Rockdale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RYDE</td>
<td>Wicks Road</td>
<td>North Ryde</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEVEN HILLS</td>
<td>Powers Road</td>
<td>Seven Hills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone</td>
<td>9439 8521</td>
<td>9648 5316</td>
<td>9793 8416</td>
<td>9597 4506</td>
<td>9888 9381</td>
<td>9674 5300</td>
</tr>
<tr>
<td>Householder</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mon - Fri</td>
<td>1am to 5pm</td>
<td>6am to 5pm</td>
<td>6am to 5pm</td>
<td>6am to 5pm</td>
<td>5am to 5pm</td>
<td>6am to 4pm</td>
</tr>
<tr>
<td>Sat - Sun</td>
<td>7am to 5pm</td>
<td>8am to 5pm</td>
<td>8am to 5pm</td>
<td>8am to 5pm</td>
<td>7am to 5pm</td>
<td>8am to 5pm</td>
</tr>
</tbody>
</table>

ALL WASTE MANAGEMENT CENTRES ARE CLOSED ON GOOD FRIDAY AND CHRISTMAS DAY.

WASTE MANAGEMENT CENTRES - LANDFILLS

<table>
<thead>
<tr>
<th>Address</th>
<th>BELROSE TRANSFER STATION</th>
<th>BELROSE LANDFILL</th>
<th>EASTERN CREEK LANDFILL</th>
<th>JACKS LANDFILL</th>
<th>LUCAS HEIGHTS LANDFILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artarmon</td>
<td>Crozier Road Belrose</td>
<td>Crozier Road Belrose</td>
<td>Wallgrove Road Eastern Creek</td>
<td>Richardson Road Narellan</td>
<td>New Illawarra Road Lucas Heights</td>
</tr>
<tr>
<td>Auburn</td>
<td>9450 1306</td>
<td>9450 1306</td>
<td>9675 1060</td>
<td>046 581 497</td>
<td>9543 1544</td>
</tr>
<tr>
<td>CHULLORA*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCKDALE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RYDE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEVEN HILLS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone</td>
<td>9450 1306</td>
<td>9450 1306</td>
<td>9675 1060</td>
<td>046 581 497</td>
<td>9543 1544</td>
</tr>
<tr>
<td>Householder</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mon - Fri</td>
<td>6am to 5pm</td>
<td>6am to 2pm</td>
<td>7am to 4pm</td>
<td>6am to 4pm</td>
<td>6am to 4pm</td>
</tr>
<tr>
<td>Sat - Sun</td>
<td>8am to 5pm</td>
<td>8am to 11am</td>
<td>8am to 5pm</td>
<td>8am to 5pm</td>
<td>8am to 5pm</td>
</tr>
</tbody>
</table>

ALL WASTE MANAGEMENT CENTRES ARE CLOSED ON GOOD FRIDAY AND CHRISTMAS DAY.

* A materials recycling facility is located at both these centres. For details on commercial loads of recyclables please call Waste Service NSW on 9934 7022.
Resource NSW has prepared a comprehensive directory of clean fill sites, facilities and outlets for recovery materials and recyclables covering the Greater Sydney Metropolitan Region (attached). Resource NSW has also developed a contemporary Waste Planning Guide as a support document for Councils, business and the community.

Recycled building materials can often be sold to companies which both buy and sell second hand building materials. A listing of companies which buy and sell second hand building materials can be found in The Yellow Pages under the heading of “Building Materials - Secondhand”.

BUILDING & DEMOLITION WASTE RECYCLING DIRECTORY
To achieve a cleaner and more sustainable world, it is vital that commerce, government and the community work together to reduce waste. Resource NSW works across the State to encourage, facilitate and manage the process to achieve this aim.

To apply to have your facility listed in this directory, change your details, suggest improvements or request more copies, please contact:
C&D Project Team
Resource NSW
PO Box 644
Parramatta NSW 2124
Ph: 8837 6000
Fax: 8837 6099
Email: head.office@resource.nsw.gov.au
www.resource.nsw.gov.au

Printed on 100% post consumer recycled paper
Whilst every effort has been made to ensure that the information provided is up to date and useful, Resource NSW does not endorse any of the facilities listed, guarantee that they will accept the materials stated or guarantee approvals and licences. It is your responsibility to check these details before taking any materials to the places listed.

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Waste Reduction & Recovery Tips

FOR BUILDERS

Try these steps to reduce waste in residential buildings*:

- Design efficiently.
- Estimate accurately.
- Prefabricate where possible.
- Improve site practices in relation to materials storage, packaging and the collection, sorting and recycling of waste.
- Carefully plan the site to allow for a designated waste collection area.
- Be aware of the local recycling and site cleaning services for bricks, concrete, plasterboard etc and make use of them.
- If you build regularly, develop a comprehensive waste management strategy.

*Based on HIA (Housing Industry Association) recommendations

FOR DEMOLISHERS

A series of fact sheets and a video that highlight the advantages of deconstruction are available from Resource NSW. They outline the stages in deconstruction:

- Stripping out.
- Roof removal.
- Roof beams and timber removal.
- Internal plasterboard removal.
- Removal of bricks and concrete.
- Cost of deconstruction.
- Asbestos fibro disposal options.

The fact sheets also contain useful information and tips. They identify what materials can be reused or recycled and the costs involved.

Demolition costs can be reduced by up to 40% if demolishers are prepared to sort materials and send them to a recycling facility.

Map of Sydney Metro Area and Regions

Note to Users

Always call ahead to confirm hours of operation and confirm acceptance of materials you wish to reuse, recycle or dispose of.

Note to Businesses Listed

We are continually updating this directory. If we have incorrectly cited your details, we apologise for any inconvenience. Please let us know so we can correct them. If you have not been included, please let us know and we can send out an application form for inclusion in future directories.
Facility / Material Listing

Aggregates - Suppliers
The suppliers listed have indicated that they produce and sell material that meets the requirements of the “Draft Specification for Supply of Recycled Materials for Roads Draining and Fill”. This draft specification is available from Resource NSW. This list is not exhaustive. Resource NSW make no representation on their behalf.

**Boral Quarries**
Clunies Ross St Prospect
1300 723 999
Charbel.Bounassif@boral.com.au
Supplier of certified (quality assured) and non-certified recycled and natural quarry products. Material suitable for most applications including major infrastructure work to home improvements.
Contact: Charlie Bounassif, Technical Sales.

**Camsons Pty Ltd**
9675 6222 St Marys
0418 221 997
busrelations@camsons.com.au
Supplier of all quarried and recycled materials to the Sydney, North Coast, South Coast and greater metropolitan areas.
Contact: Adrian Scott, Business Relations Manager or Dianne Foley, Sales Administrator.

**Concrete Recyclers**
14 Thackeray St Camellia
9684 6811
glenn@concreterecyclers.com.au www.concreterecyclers.com.au
Next day delivery of roadbase, aggregates, drainage material and bedding sand.

Asphalt

**NORTH**

**Kimbriki Recycling & Waste Disposal Centre**
Kimbriki Rd Terrey Hills
9486 3512
7am-5pm (Mon-Sun)

**NORTH WEST**

**Hallinan’s Recycling Centre**
306 Racecourse Rd Windsor
02 4572 5922
7am-4:30 (Mon-Fri) 7am-3pm (Sat)

**KU**

**Kurnell Landfill**
Captain Cook Drive Kurnell
9668 8539
6am-4pm (Mon-Sun)

**Kurnell Brick**
23 Robert St Harbord
9939 1526, 0418 241 516
Suppliers of secondhand commons and original sandstocks.

**D&P Timber & Bricks**
6 Warrior Pl St.Marys
9833 9044, 9867 5132
Pickup large quantities of bricks with lime mortar for cleaning and resale.

**The Brick Pit**
Cnr Lane Cove & Fontenoy Rds North Ryde
9888 7888
7am-4:30pm (Mon-Fri) 7am-1pm (Sat)
Buy and sell old commons in lime mortar, terracotta and some cement roof tiles. No cement on bricks, materials need to be hand loaded and intact.
Building Recyclers
3 Canal Rd St.Peters 9559 1833
7am-5pm (Mon-Fri) 7am-3pm (Sat)
Sell sandstone, timber and bricks salvaged from demolition sites.

Metropolitan Demolitions & Recycling
Rear of 396 Princes Hwy St.Peters 9519 3283
7am-5:30pm (Mon-Fri) 7am-3pm (Sat)
Sell timber, steel and other second hand building materials salvaged from demolition sites.

Terrace House Factory Building Materials
304-308 Harris St Ultimo 9660 6768
9am-5pm (Mon-Fri) 10am-4pm (Sat)
Buy and sell architectural heritage items and accessories including doors, lights, windows, door knobs, chimney pots, bathroom materials and cast iron works. Reasonable condition. Pick up on inspection. Items are resold to public. Carry out repair work on cast iron products. Delivery and pickup available.

INNER WEST

Architectural Heritage
62 Glebe Point Rd Glebe 9660 0100
10am-6pm (Mon-Sun)
Buy and sell structural antiques and fittings including leadlights, lacework, marble/timber fireplaces, grates, floorboards. Collections and delivery available.

Balmain Stripping Factory
124 James St Leichhardt 9660 3083
8am-5pm (Mon-Fri) 9am-1pm (Sat)
closed first Monday of every month
Buy and sell pre 1930 architectural items including doors, windows, lead lights and ceramics. Must be in good condition.

Bower Re-Use & Repair Centre Co-Operative
142 Addison Rd Marrickville 9568 6280
9am-5pm (Mon-Sat) 11am-4pm (Sun)
Open 10am Wed
Accept all kinds of donated furniture, household accessories and building materials including timber, doors, pavers and tiles. Goods must be in reasonable condition and repairable. Unlimited quantities. Items resold to public. Carry out repair work on goods. Local delivery and pick-up is available.

Chippendale Restorations
Cnr Parsons & Crescent Sts Rozelle 9810 6066
7:30am-5pm (Mon-Fri) 9am-5pm (Sat)
12pm-5pm (Sun)
Buy and sell Federation/Victorian doors, timber, windows and fittings. Very good condition only.

Devine Marine Group
Cnr The Crescent and City Westlink Rds Rozelle Bay 9518 9444
7am-5pm (Mon-Fri)
Sell salvaged wharf and bridge materials.

Ironwood
(Formerly Rozelle Recycled Building Centre)
88-90 Lilyfield Rd Rozelle 9818 1166
7am-5:30pm (Mon-Fri) 9am-3pm (Sat)
Millers and merchants of reclaimed and recycled timber. For staircases, treads, stringers, risers, post & handrails, exposed beams, decking, table tops and flooring.

Reverse Garbage
8/142 Addison Rd Marrickville 9569 3132
9am-5pm (Mon-Sat) 10am-3pm (Sun)
Open until 7:30pm Thursdays
Accept timber off cuts, tiles, display boards, containers, pavers, storage drums, commercial carpet, new paint, office furniture and shop fittings. Pick up available.

Thunderbird Construction & Procurement
At the foot of Johnston St Rozelle Bay 9571 8299
10am-10pm (Mon-Fri)
Buy and sell unique construction materials.

Devine Marine Group
Cnr The Crescent and City Westlink Rds Rozelle Bay 9518 9444
7am-5pm (Mon-Fri)
Sell salvaged wharf and bridge materials.

Ironwood
(Formerly Rozelle Recycled Building Centre)
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Thunderbird Construction & Procurement
At the foot of Johnston St Rozelle Bay 9571 8299
10am-10pm (Mon-Fri)
Buy and sell unique construction materials.
**Building Materials & Demolition Yards continued...**

**Junkyard**  
Bennet Rd  
Londonderry  
02 4572 5211  
10am-4pm 7 days  
Buy and sell all secondhand building materials.

**Recycled Building Material**  
30 Chapman Rd  
Vineyard  
9607 2872  
7:30am-4pm (Mon-Fri) 7:30am-12pm (Sat)  
Sell all timber based materials, bricks (lime mortar), corrugated iron, steel, kitchen/bathroom accessories.

**WEST**

**As Good As Used Building Materials**  
89 Dunheved Circuit  
St.Marys  
9673 3598  
8am-5pm (Mon-Fri) 9am-3pm (Sat)  
Sell timber, roofing, fittings, doors, windows etc salvaged from demolition sites.

**Barter Town Salvage**  
Lot 9 Elizabeth Dr  
Kemps Creek  
9826 1078  
9am-5pm (Mon-Sun)  
Accept and sell all building materials including timber, corrugated iron, windows, doors, piping, car parts, tiles, bricks, kitchen sinks. Does not accept plastics, glass, asbestos, greenwaste, and tyres.

**Home Recycling Centre**  
12a Parramatta Rd  
Lidcombe  
9748 7899  
7am-4pm (Mon-Fri) 7am-3.30pm (Sat)  
Sell timber, tiles, bricks, floors, doors, windows, bitumen, concrete, soil and sandstone salvaged from demolitions. Delivery available.

**SOUTH WEST**

**Campbelltown Recycling Centre**  
7 Blaxland Rd  
Campbelltown  
9626 5422  
9:30am-6pm (Mon-Fri) 9:30am-3pm (Sat)  
Buy/accept and sell building materials in reasonable condition including doors, windows, sinks, timber, tiles, toilets, fireplaces, accessories, non ferrous metals etc.

**Davco’s Secondhand Building Materials**  
59 Blaxland Rd  
Campbelltown  
9628 5677  
7am-5.30pm (Mon-Fri) 9am-4pm (Sat)  
Buy/accept and sell building materials in reasonable condition including doors, windows, sinks, timber, tiles, toilets, fireplaces, accessories, non ferrous metals etc.

**SOUTH**

**Ask The Leighton Brothers**  
Port Hacking Rd  
Miranda  
9524 3779, 0410 400 770  
Accept, buy and sell all building materials including windows, laminated glass, timber etc. Commercial and domestic.

**Former Glory**  
3-5 Rochester St  
Botany  
9662 6008, 9666 3103  
10am-3pm (Mon-Fri)  
Floorboards, fireplaces and surrounds, timber – both hardwood and oregon, sandstone, lead light windows and doors and other building materials such as tin etc. All materials at this stage are sold only.

**Quality Recycled Demolitions**  
34 Woodfield Boulevarde  
Caringbah  
9542 7203, 0418 249 858  
8am-4.30pm (Mon-Fri) 8am-4pm (Sat)  
Buy and sell all building materials including doors, windows, fireplaces, kitchen/bathroom accessories, hardwood, oregon, baltic, kauri etc. Collection and delivery available.

**Second Hand Building Centre**  
Rear 432b West Botany St  
Rockdale  
9567 1322  
7:30am-5pm (Mon-Fri) 8am-4pm (Sat)  

**MULTIPLE LOCATIONS**

**Saint Vincent De Paul**  
9560 8666  
9am-5pm (Mon-Fri) 9am-4pm (Sat)  
All furniture including doors, wardrobes, cabinets, mirrors, sinks, lounges and mattresses. Reasonable condition. Collections and deliveries must be prearranged and all material must be donated.

**Salvation Army**  
13 1640  
9am-5pm (Mon-Fri) 9am-4pm (Sat)  
All furniture including doors, wardrobes, cabinets, mirrors, sinks, lounges and mattresses. Reasonable condition. Collections and deliveries must be prearranged and all material must be donated.
Sell second hand building materials such as bridge timbers, sleepers, sand stock bricks, timber, windows, doors etc. salvaged from demolition sites.

**Cable Drums**

**JM Joseph**  
39 Gladys St  
Rydalmere  
9638 1863

Empty cable drum buyer and seller.

**Cardboard & Paper**

**DROP-OFF**

It is best to arrange with your supplier to take back all packaging, including cardboard. If that is not possible you may be able to take it to one of these drop-off facilities. Most facilities accept clean cardboard for FREE.

**Amcor Botany Paper Mill**  
1891 Botany Rd  
Matraville  
1800 819 000  
8:30am-4:30pm (Mon-Fri)

Accept all clean, separated cardboard and paper. Must be flattened and baled. No plastic tapes or other contamination.

**MULTIPLE LOCATIONS**

**Waste Management Centres**

Artarmon, Auburn, Belrose, Chullora, Eastern Creek, Jacks Gully, Lucas Heights, Rockdale, Ryde, Seven Hills

1300 651 116

Accept up to 200kg per visit of cardboard boxes and packaging. Some centres take larger loads.

**PICK UP**

If you are unable to drop-off cardboard yourself, arrange for someone to pick it up for you. Systems vary and charges apply. Cardboard bins are usually much cheaper than waste bins. Some companies that supply bins for on-site food waste may be able to supply cardboard bins at a cheaper rate.

**A Charltons Waste Paper Recycling**  
82 Princes Charles Pde  
Kurnell  
0414 661 344, 9668 9370

**Able Waste Paper Recycling**  
P0 Box 774  
Miranda  
9522 2221

**Amcor Recycling**  
Botany Rd  
Matraville  
9695 3472

**Barlea Paper Recycling**  
60 Queens Pde  
Newport  
0418 113 012

**Bowing Waste Paper & Cardboard**  
46/211 Waterloo Rd  
Marsfield  
9214 6772

**Cleanaway Recycling**  
Mamre Rd (cnr Erskine Park Rd)  
Erskine Park  
13 1339

Pickup cardboard and paper if you have a general waste bin with them.

**Enmore Box & Case**  
29-35 Cowper St  
Marrickville  
9560 2866  
7:30am-4pm (Mon-Thurs) 7:30am-2:30pm (Fri)

Buy all clean, separated cardboard boxes in reasonable condition for resale. Can be flattened or boxed. 200 same size box minimum. Boxes resold on site. Will pay 5c-40c depending on condition.

**J&D Blue Wastepaper**  
Unit 3, 58-62 Cook St  
Kurnell  
9668 9237

**Jones Waste Service**  
80 Violet St  
Revesby  
9774 4850

**Metropolitan Recycling**  
23-35 Shepherd St  
Liverpool  
9821 3500

**MK Muscat Waste Paper**  
Farm Rd  
Marsden Park  
0419 602 354

**Moatoga Paper Recycling**  
50 Railway Pde  
Condell Park  
9708 5962  
7am-5:30pm (Mon-Fri) 7am-12pm (Sat)

Accept cardboard from public and business.

**Visyboard**  
158-160 Mc Credie Rd  
Smithfield  
1300 368 479  
7am-8pm (Mon-Fri)

Accept all clean, separated cardboard and paper. Must be flattened, loose or bundled. No plastic tapes, staples, food scraps, carbon or other contamination. Unlimited quantities. Prearrange for charged collections on 9794 3172.

**Waste Management Centres**

Artarmon, Auburn, Belrose, Chullora, Eastern Creek, Jacks Gully, Lucas Heights, Rockdale, Ryde, Seven Hills

1300 651 116

Accept up to 200kg per visit of cardboard boxes and packaging. Some centres take larger loads.
Carpet & Floorcoverings

Carpet Disposals
620 Forest Rd  Bexley
9588 6363
8am-5pm (Mon-Fri) 8am-1pm (Sat)
Buy commercial carpets and carpet tile. Resold to public. Reasonable condition 50 metres minimum. All prices for removal and purchases are quoted. Collect and deliver.

Carpet Recyclers
617 Tower Rd  Bankstown
9791 9151
24 hours, 7 days/week
Buy commercial carpets and carpet tile. Resold to public. Reasonable condition 50 metres minimum. All prices for removal and purchases are quoted. Collect and deliver.

Sydney Carpet Removals
Unit 1, 80 Heathcote Rd  Moorebank
9824 3133
8am-5pm (Mon-Fri)
Buy commercial carpets and carpet tile. Resold to industry. Reasonable condition. Commercial quantities only. All prices for removal and purchases are quoted. Collect and deliver.

Cleanfill
See Concrete / Brick / Tile (accepted for reprocessing), Mixed Waste, VENM and Wood Waste / Garden Organics.

Concrete / Brick / Tile (accepted for reprocessing)

**CITY & EAST**

Dial A Dump
Albert St  St.Peters
9550 2942
7am-4.45 (Mon-Fri) 7am-1pm (Sat)
Accept separated or mixed concrete, brick and tile from pre-paid customers.

Metropolitan Demolitions & Recycling
Rear of 396 Princess Hwy  St.Peters
9519 3099
7am-4.30pm (Mon-Fri) 7am-3pm (Sat)
Accept concrete. Also accept brick on request. Unlimited quantities. Sell roadbase, aggregates, drainage material and bedding sand.

**NORTH**

Davis Earth Moving & Quarrying
138 Wirreanda Rd  Ingleside
9450 2288
7am-5pm (Mon-Sun)
Accept separated and mixed concrete, bricks, clay based products. Fees apply, reduced if materials are separated. Unlimited quantities. Sell roadbase products, aggregate, filling, bricks, concrete, tiles, soil, sandstone.

Greenwoods
Mona Vale Rd  St. Ives
0408 444 456, 0418 444 456
7am - 4pm (Mon-Fri)
Accept clean and separated concrete, bricks, masonry, roof tiles and sandstone. Fees apply.

Kimbriki Recycling & Waste Disposal Centre
Kimbriki Rd  Terrey Hills
9486 3512
7am-5pm (Mon-Sun)
Accept clean and separated concrete, roofing tiles, asphalt, oversize concrete and brick. Fees apply, reduced if materials are separated. Unlimited quantities. Sell roadbase, asphalt, crushed concrete and cleaned bricks. Delivery and collection available.

What's Waste
Meatworks Ave  Oxford Falls
9975 1792
7am-5pm (Mon-Fri) 6am-12 (Sat)
Accept concrete and brick. Fees apply.

**NORTH WEST**

Hallinan’s Recycling Centre
306 Racecourse Rd  Windsor
02 4572 5922
7am-4.30 (Mon-Fri) 7am-3pm (Sat)

Boral Recycling
Clunies Ross St  Prospect
1300 723 999
6am-5pm (Mon-Fri) 6am-1.30pm (Sat)
Concrete / Brick / Tile (accepted for reprocessing) continued...

Hallinan’s Recycling Centre
37 Lee Holm Rd St.Marys
9833 0883
7am-4.30 (Mon-Fri) 7am-2pm (Sat)
Accept separated and mixed concrete, bricks, clay based products, sand, tiles, metal, timber, greenwaste, plastic, plasterboard, soil, tyres, asbestos, paper/cardboard and glass. Fees apply, reduced if materials are separated. Preference for commercial quantities. Sell roadbase aggregates, bricks, tiles, asphalt and sand. Mobile service equipment for on site works. Licensed depot. Delivery and collection available.

Hannas
3 Duck St Auburn
9748 4994
5am-8pm (Mon-Fri) 6am-4pm (Sat) 7am-3:30pm (Sun) Extended hours by arrangement
Accept mixed demolition material, concrete, brick, roof tile, tile, clean masonry fill, untreated timber, site clearing/granular fill and soil for recycling.

Hassle Street, Road Material Recycling Centre
Cnr Hassel St & Widemere St Wetherill Park
9609 7928
6.30am-4pm (Mon-Fri) Sat by appointment
Accept clean and separated concrete, profiled asphalt/roadbase. Clean and separated material only. No bricks or other contaminants. Sell crushed concrete and recycled roadbase. Delivery and collection available.

Recycled Resources
134 Carnavon St Silverwater
9748 3566
6:30am-4pm (Mon-Fri) 6:30am-2pm (Sat)

SOUTH WEST

Benedicts
Lot 17 Riverside Rd Moorebank
9755 2622
6am-5pm (Mon-Fri) 6am-3pm (Sat)

Chullora Recycling Park
Muir Rd Chullora
1300 651 116
2am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept household quantities only of separated asphalt, brick, concrete, and terra-cotta. Fees and limits apply.

Jacks Gully Waste Management Centre
Richardson Rd Narellan
1300 651 116
6am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)

Lucas Heights Waste Management Centre
New Illawarra Rd Lucas Heights
1300 651 116
6am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)

PMT Transfer Station
81 Gow St Padstow
9709 2773
6am-5pm (Mon-Fri) 7am-2pm (Sat)
Accept all excavation material, mixed C&D subject to inspection. Recycled roadbase, aggregates, fill soil, topsoil, limited building materials available for sale. Tyres, stumps, fibro, carpet, mattresses contaminated soil, liquid wastes not accepted. Reduced charges for separated loads.

Recycled Resources
11B Harp St Campsie
9787 2209
7:30am-4pm (Mon-Fri) 7:30am-12pm (Sat)

SOUTH

Collex Building Recyclers
38 McPherson St Banksmeadow
9316 6333
7am-4.30pm (Mon-Fri) 7am-3pm (Sat)
Closes half an hour earlier for hand unloading.
Accept separated and mixed concrete, tiles, sand, soil, clay based products, timber, trees, carpet, metal, plastic, glass and paper/cardboard. Sell roadbase products, aggregate, filling and bricks. Mobile service equipment for on site works. Licensed depot.

Holt Land Rehabilitation Centre
Lot 2 Captain Cook Drive Kurnell
9923 1645
7am-4pm (Mon-Fri) 7am-2pm (Sat)
Accept terracotta roof tiles for recycling.

Kurnell Landfill
Captain Cook Drive Kurnell
9668 8539
6am-4pm (Mon-Sun)
Accept asphalt, brick, concrete and terracotta. Cheaper if separated.

Drums

A1 Drums
34 Wellington St Riverstone
9627 3707
Buy and sell plastic and metal drums. Collection service available.

Abbey Drums And Pallets
77 Redfern St Wetherill Park
9725-1919
Buy and sell plastic and metal drums. Collection service available.
Drums continued...

Better Drums
Unit 3/100 Edward St Riverstone
9627 5575
Buy and sell plastic and metal drums. Collection service available.

Crossroad Drum Co.
34 Harp St Campsie
9787 3433
7:30am-4pm (Mon-Fri)

Macquarie Drum Services
12-14 Box Ave Wilberforce
02 4575 2254
Tank Management Services
3 Clarke St Guildford
9632 0594
6am-4pm (Tues-Thurs)

Drum Reconditioners (NSW)
30-32 Powers Rd Seven Hills
9624 6455
7am-5pm (Mon-Fri)

Kimbriki Recycling & Waste Disposal Centre
Kimbriki Rd Terrey Hills
9486 3512
7am-5pm (Mon-Sun)
Limit of one tonne. Asbestos must be wrapped in heavy duty builders plastic and wrapped in parcel to be loaded from the customers vehicle, by the customer into a high sided skip.

Fibro Containing Asbestos
Fibro containing asbestos can’t be reused or recycled. It must be kept separate from other demolition waste such as concrete and brick so that it doesn’t contaminate recycled products. It must be taken to one of the licensed landfill listed below.

Each facility will have wrapping requirements and unloading requirements for fibro containing asbestos. Contact the facility before you take it there.

Drum Distributers
1 Ilma St Bankstown
9971 2836
7am-3.30pm (Mon-Fri)
Buy empty plastic and metal drums for recycling and reconditioning. Any condition, charge for drums holding certain residues. No liquid waste. Disposal fee for drums holding certain residue eg. glue or concrete additives 205L sized drums, 20 minimum for pickup. Reconditioned drums sold to public. Delivery and collection available.

NORTH
Belrose Waste Management Centre
Crozier Rd Belrose
1300 651 116
4:30am-4pm (Mon-Fri) 7am-11am (Sat)
8am-11am(Sun)
Must be pre-booked. Fees and conditions apply.

Kimbriki Recyling & Waste Disposal Centre
Kimbriki Rd Terrey Hills
9486 3512
7am-5pm (Mon-Sun)
Limit of one tonne. Asbestos must be wrapped in heavy duty builders plastic and wrapped in parcel to be loaded from the customers vehicle, by the customer into a high sided skip.

WEST
Elizabeth Drive Landfill Facility
1725 Elizabeth Drive Kemps Creek
02 4774 8866
7am-5pm (Mon-Fri)

Enviroguard
Cnr Mamre & Erskine Park Rd Erskine Park
9834 3411
6am-4.30pm (Mon-Fri) 7am-3.30pm (Sat-Sun)

Glenfield Waste Disposals
Campbell St Glenfield
9601 8766
6.30am-4.20pm (Mon-Sat)

Kari & Ghossayn
Lot 17-23 Elizabeth Drive Kemps Creek
9826 1137
7am-5pm (Mon-Fri) 7am-1am (Sat)

SOUTH WEST
Jacks Gully Waste Management Centre
Richardson Rd Narellan
1300 651 116
6am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)
Must be pre-booked. Fees and conditions apply.

Lucas Heights Waste Management Centre
New Illawarra Rd Lucas Heights
1300 651 116
6am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)
Must be pre-booked. Fees and conditions apply.

Floorboards
For suppliers of timber floorboards, also see Building Materials & Demolition Yards and Timber.

William Kelso
0414 900 353
Takes up floorboards from demolition sites.

Flourescent Tubes & HID Lamps
See Hazardous Waste.
Glass - Laminated & Plate

Cut-Price Glass
2/1A Knox Lane  Double Bay
9327 8278, 0411 841 842
They take laminated partition glass from refurbishments.

Jay & Kay Glass
129 Woodpark Rd  Smithfield
9632 8588
They take laminated partition glass from refurbishments.

Pilkington (Australia) Ltd
8 Euston Rd  Alexandria
9550 2911
7am-3pm (Tues-Fri)
Buy any flat glass. No pyroseram (wood fired heater doors), no windscreens, bottles, containers. Only clean, flat glass. Unlimited quantities. No contaminated glass accepted. Delivery and collection available.

Southern Glass
PO Box 3329  Dural
0418 219 200
They take laminated partition glass from refurbishments.

Visy Recycling - Glass Division
Cnr Baker and Moore Sts  Botany
9316 4343
7am-5pm (Mon-Fri) 7am-12pm (Sat) 10am-1pm (Sun)
Free drop-off for plate and laminated glass. No frames – glass only. Unlimited quantities. Pick up charge.

Landscape Materials

Also see Building Materials & Demolition Yards, Plants, Sandstone and Wood Waste / Garden Organics.

Andrew O'Sullivan & Associates
0416 284 228
Accept most plant material, pot plants & garden furnishings. Also timber decking, flooring, amounts of hardwood, block sandstone and paving. No Cocos palms accepted.

Hazardous Waste

Hazardous wastes include:
- Fluorescent tubes and HID Lamps (in commercial quantities).
- Industrial and laboratory chemicals.
- Mercury, NiCad and Lithium Hydride batteries.
- PCBs.
- Pesticides and herbicides.
Also contact the EPA on 131 555 for advice on where and how to dispose of these wastes.

Chemsal
12 Bushels Pl Wetherill Park
9604 7533 or 9604 8467
Also recycle fluorescent tubes and HID lamps.

Cleanaway
19 Egret St Kooragang
02 4920 1455
CWDS
9623-0888 Strathfield
Environmental Waste Managers
99 Kyle St Rutherford
02 4932 4466
ERS Australia
6-8 Rayben St Glendenning
9832-8766

Lidcombe Liquid Treatment Plant
Cnr of Link & 1 Hill Rds  Homebush Bay
9934 7120
6:30am-3pm (Mon-Fri) 24hrs/7days for emergencies
Accept paints and chemicals for treatment and disposal. Fees and conditions apply. Give at least one days notice for intended delivery.

Sydney Water
1800 814 719
Sydney Water hold household chemical collections / drop-off days throughout the year. Call 1800 814 719 for dates and collection points.

Office Furniture

Booths Office Furniture
188 Parramatta Rd Camperdown
9557 5835
8am-4:30pm (Mon-Fri) 10am-4pm (Sat-Sun)
Chair Clinic
Salisbury Rd (cnr Percival Rd) Stanmore
9560 9113
Chair Doctor
305 Kent St Sydney
9299 1800
Complete Office Refurbishment
8 Box Rd Taren Point
9540 5510
Mini-Cost Office Furniture
104 Adderley St West Auburn
9647 2299
8am-5pm (Mon-Fri) 9am-4pm (Sat)

Oil

Abbra Cadabra Waste Oils
59 Lalor Rd Quakers Hill
9626 7269

ABC Waste Oil Collection
6 Camellia Place Lalor Park
9622 1190

Clearwater Industrial Services
Unit 2/78 Heathcote Rd Moorebank
9824 3225

Australian Liquid Recyclers
38 Links Rd St Marys
9673 1550

Australian Waste Oil Refiners
27 Powers Rd Seven Hills
9624 3055
6am-5pm (Mon-Fri) On call Saturdays
Collect all used, dirty and unwanted oils, sludges, oily water and hydraulic oil. Any condition. 200 litres minimum for pick up.

Chemsal
12 Bushels Pl Wetherill Park
9604 7533 or 9604 8467

Recycling Works
45 Parramatta Rd Annandale
9517 2711
10am-5pm (Mon-Sun)
Buy and sell office equipment, benches, storage cabinets, wardrobes and other home furniture. Collections and deliveries must be prearranged.

PICK-UP SERVICES

Resource NSW – Construction & Demolition Recycling Directory 19
Coast And Valley Oil Distributers
15 Apprentice Dr Berkeley
02 4388 5911
8am-4:30pm (Mon-Fri)
Pick-up all used, dirty and unwanted oils, oil filters, paints, solvents and greases. Any condition. 200 litres minimum for pick up.

Klekies
1 Daintree Place Gosford
02 4324 5036
Pick up used engine oil, used oil filters / drums, coolant and contaminated fuels.

Nationwide Oil
6 Davis Rd Wetherill Park
9604 2611
Oil Collection Services
27 Burlington Rd Homebush
0413 742 752

Worth Recycling
458 Rocky Point Rd Sans Souci
8558 5100
9am-5pm (Mon-Fri)
All used, dirty and unwanted oils and oily water. Any condition. 400 litres minimum.

DROP-OFF FACILITIES

NORTH
Artaimoon Waste Management Centre
Lanceley Place Artarmon
1300 651 116
1am-5pm (Mon-Fri) 5am-5pm (Sat)
7am-5pm (Sun)
Accept up to 20 litres of sump oil. Free.

SOUTH WEST
Chullora Recycling Park
Muir Rd Chullora
1300 651 116
2am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept up to 20 litres of sump oil. Free.

Paints & Thinners
Small quantities of excess paint and thinners can be disposed of by:
- Leave the lid off paint tins, allow small amounts of paint to dry out inside the tin.
- The tin and dried paint can then be put in the bin.

For larger amounts of paint:
- Pour onto newspaper and allowed to dry.
- The paint container can then be wiped clean and recycled.
- Newspaper can go into the rubbish bin.

For professional painters, “Paint Clean - Environmental Information for Painters” is available from the EPA website at www.epa.nsw.gov.au/small_business/painters/index. Or contact the Master Painters Association (NSW) on 9746 4700.

Jacks Gully Waste Management Centre
Richardson Rd Narellan
1300 651 116
6am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept up to 20 litres of sump oil. Free.

SOUTH
Rockdale Waste Management Centre
Lindsay St Rockdale
1300 651 116
6am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept up to 20 litres of sump oil. Free.

PICK-UP SERVICES
Australian Solvent Recyclers
38 Links Rd St Marys
9833 7035
7am-5pm (Mon-Fri)
All flammable liquids including used, dirty and unwanted oils, paints and solvents. Any condition. Unlimited. Gun wash (mixture of solvents used in spray guns). Fees apply. Collect and deliver for commercial quantities only.

Chemsal
12 Bushels Pl Wetherill Park
9604 7533 or 9604 8467

Clean Way Solvents
Unit 3, 8 Pembury Rd Minto
9820 5144
7am-6pm (Mon-Sat)
All waste solvents and hazardous material including paints, thinners, oils, oil filters, chemicals, water, coolers and sludge. Any condition. Unlimited. Sell multi-purpose thinners, acetone, wax and grease removers, kerosene, diesel. Fees apply on a per litre basis. Also recycle paint tins.

CWDS
9623 0888 Strathfield
All waste solvents and hazardous material including paints, thinners, oils, oil filters, chemicals, water, coolers and sludge. Any condition. Fees apply. Also recycle paint tins.

ERS Australia
6-8 Rayban St Glendenning
9832 8766
7am-5.30pm (Mon-Fri)
All flammable liquids including used, dirty and unwanted oils, oil filters, paints, solvents. Any condition. Unlimited. Recoverable liquid sold to industry. Charges apply based on product.
Paints & Thinners continued...

Industrial Solvents

33 Violet St 9772 4433
8am-5pm (Mon-Fri)

All used, dirty and unwanted paints or solvents. Any condition. 20 litre drums minimum accepted. Recycled paints and solvents. Fees apply depending on type of liquid waste.

DROP-OFF FACILITIES

NORTH

Artarmon Waste Management Centre
Lanceley Place Artarmon
1300 651 116
1am-5pm (Mon-Fri) 7am-5pm (Sun)

Accept up to 20 litres of paint, paint thinners and cleaners. Free.

Belrose Waste Management Centre
Crozier Rd Belrose
1300 651 116
6am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)

Accept up to 20 litres of paint, paint thinners and cleaners. Free.

Ryde Waste Management Centre
Wicks Rd Ryde
1300 651 116
5am-5pm (Mon-Fri) 7am-5pm (Sat-Sun)

Accept up to 20 litres of paint, paint thinners and cleaners. Free.

WEST

Auburn Waste Management Centre
Hill Rd 1300 651 116
4:30am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)

Accept up to 20 litres of paint, paint thinners and cleaners. Free.

Eastern Creek Waste Management Centre
Wallgrove Rd Eastern Creek 1300 651 116
7am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)

Accept up to 20 litres of paint, paint thinners and cleaners. Free.

Lidcombe Liquid Treatment Plant
Cnr of Link & 1 Hill Rds Homebush Bay 9934 7120
6:30am-3pm (Mon-Fri)
24hrs/7days for emergencies

Accept paints and chemicals for treatment and disposal. Fees and conditions apply. Give at least one day notice for intended delivery.

Seven Hills Waste Management Centre
Powers Rd Seven Hills 1300 651 116
6am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)

Accept up to 20 litres of paint, paint thinners and cleaners. Free.

SOUTH

Rockdale Waste Management Centre
Lindsay St Rockdale 1300 651 116
6am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)

Accept up to 20 litres of paint, paint thinners and cleaners. Free.

Pallets

Affordable Pallets
16 Devon Rd Ingleburn 9829 6899
7am-3pm (Mon-Thurs) 7am-12pm (Fri)
Buy/accept all standard timber pallets in reasonable condition. Price paid depends on quality. Repaired pallets sold to industry. Delivery and collection available.

Pallets Plus
Unit 1, 80 Dunheved Circuit St.Marys 9833 2926
2pm-3.30pm (Mon-Sat)
Buy/accept all timber pallets depending on size and condition. Reasonable condition. 30 pallets minimum. Refurbished pallets sold to industry. Delivery and collection available.

Alpine Tree Removals
1099 Old Northern Rd Dural 9651 2444
Removes and sell mature plants. Fees apply.

Landscape Rescue
0416 284 228
Recycle plants and materials otherwise destined for the tip. Collect overgrown or unwanted pot plants, specimen trees and clumpforming plants eg gingers, canna-lillies, clivias and most tropical and unusual specimens. Also accept trees, palms and plants in quantities. Common plants like cocos-palms and most natives are not salvageable.
# Major Demolition Waste Recycling Price Guide

Use this sheet to write in prices for different waste. You can save money by separating your waste!

<table>
<thead>
<tr>
<th>REGION</th>
<th>FACILITY NAME</th>
<th>SUBURB</th>
<th>PHONE NUMBER</th>
<th>ASPHALT</th>
<th>BRICK</th>
<th>CONCRETE</th>
<th>TILES (TERRACOTTA)</th>
<th>SOIL &amp; RUBBLE</th>
<th>WOOD WASTE / GARDEN ORGANICS</th>
<th>MIXED WASTE</th>
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<td>MULTIPLE LOCATIONS</td>
<td>Waste Management Centres</td>
<td>Atarmon, Auburn, Belrose, Rockdale</td>
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<td>Eastern Creek, Jacks Gully, Lucas Heights</td>
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Plants continued...

Trading site for mature plants. Turn unwanted backyard trees into cash. Don’t dump it – Trade it.

Plasterboard

Recycling facilities exist for new plasterboard offcuts. There are no well established facilities for recycling old or used plasterboard.

Boral Plasterboard
3 Thackerey St Camellia
9638 0571
8am-4pm (Mon-Fri)

Waste Boral plasterboard (clean, new offcuts only) can be picked-up on request or customers can arrange their own transport. Fees apply. Boral require a site inducted in plant safety procedures before drop-offs commence.

Ecocycle
155 Newton Rd Wetherill Park
9757 2999
6:30am-5:30pm (Mon-Fri) 6:30am-2pm (Sat)

Accept segregated plasterboard. Fees apply.

Jarmax
9772 1197 Padstow

Collects all dry CSR plasterboard offcuts. Must be dry and source separated. Fees apply. Collections and drop-offs must be pre booked.

Mason Transport
Contact Boral Plasterboard

Collect Boral plasterboard for recycling. Must be dry and source separated. Fees apply. Collections must be pre booked.

Plastic

Astron
167 Woodpark Rd Smithfield
9729-0500

Accept and pick-up a variety of plastics in large quantities.

Chromford
120-122 Ballandella Rd Pendle Hill
9631 6644
7:30am-4pm (Mon-Fri)

Buy and accept shrink wrap. No stretch accepted. Reasonably clean/washed material accepted only. Unlimited if delivered or 5-6 bales for pick up. Sent to manufacturer. Materials are bought/accepted depending on the quality and quantities.

Donmar
21-25 Day St Lansvale
9755 3305

Recovery and re-use of all types of coloured and natural plastic such as HDPE, PP, PET, LDPE, PVC, Poly-Carbonate and Styrene.

Gem Plastics International Pty Ltd
9 Warrior Place St.Marys
9833 3255 fax: 9833 3288
web: www.thomasthoms.com.au
7:30am-4:30pm (Mon-Fri)

Buy all Low Density Polyethylene (LDPE) including black, orange and clear garbage bags, squeeze bottles, irrigation tube, mulch film. Reasonably clean/washed material accepted only.

Plastic Recycling Services
17 Loftus St Riverstone
9838 1230
7am-8pm (Mon-Fri)

Buy and accept LDPE, HDPE and PP sheets, films (including shrink wrap and stretch) and bags. Reasonably clean/washed material accepted only.

Simsmetal - Plastic Unit
86-88 Milperra Rd Revesby
9792 3370
7:30am-4:30pm (Mon-Fri)

Buy and accept LDPE and HDPE sheets, film and pipes. Reasonably clean/washed material accepted only. Compressed - 1tonne. 8-10 bales for pick up. Materials are bought/accepted depending on the quality and quantities.

Zubo
80 Middle Harbour Rd Lindfield
9416 5053
9am-5pm (Mon-Fri)

Accept shrink wrap. Compacted, clean and baled. Industrial sizes only. No PVC accepted. Will collect large industrial quantities only.

Polystryene

MAG Foamwax
8-10 Nicholas St Lidcombe
9649 6248

Recycle expanded polystyrene from packaging and waffle pods. Must be clean. You can drop off or call them to pickup any scrap you have and don’t want. Call for a quote.

Benson Heritage Roof Tile Supplies
246 Reynolds Rd Londonderry
02 4578 1037
7:30am-5:30pm (Mon-Fri) 9am-12.30pm (Sat)

Buy terra-cotta, ceramic and concrete tiles. Must be clean and unbroken. Specialising in pre war and older styles. Collection and delivery available.

DJ Daisley & Sons
162 Parramatta Rd Ashfield
9798 7075

Buy and sell terra-cotta roof tiles and secondhand slate.

Roof Tile Recyclers
16 Sleigh Place Wetherill Park
9756 3350
7:15am-5pm (Mon-Fri) 8am-2pm (Sat)

Buy and sell all kinds of roof tiles including federation tiles, chimney pots and finials in reasonable condition. Deliver and pick-up service.

Sand

Benedicts
146 Newbridge Rd Moorebank
9755 2622
6am-5pm (Mon-Fri) 6am-3pm (Sat)

Accept sand. Fees apply.

Camden Soil Mix
Glenlee Rd Narellan
02 4658 1647
7am-4.30pm (Mon-Fri) 7am-12pm (Sat)

Receive and process uncontaminated sand from excavation and building sites in the Sydney region. Used as a base for many sand / soil blends for the landscaping market.

Also see Building Materials & Demolition Yards.

For facilities that accept roof tiles for crushing, see Concrete / Bricks / Tile (accepted for reprocessing)
Sand continued...

Concrete Recyclers
14 Thackeray St Camellia
9684 6811
7am-4.30pm (Mon-Fri) 7am-3.30pm (Sat)
Accept sand. Fees apply.

Hallinan's Recycling Centre
37 Lee Holm Rd St. Marys
9833 0883
7am-4.30 (Mon-Fri) 7am-2pm (Sat)
Accept sand. Fees apply.

Holt Land Rehabilitation Centre
Lot 2 Captain Cook Drive Kurnell
9923 1645
7am-4pm (Mon-Fri) 7am-2pm (Sat)
Accept sand for free. Sell sand.

Pile & Bucket
Bay St Double Bay
9328 4477
Give away sand for free from their excavations in the Eastern Suburbs.

Sandstone
For suppliers of whole stone also see Building Materials & Demolition Yards.
For recycling of sandstone also see Concrete / Brick / Tile (accepted for reprocessing).

Sydney Secondhand Sandstone Company
Spicer Rd Oxford Falls
9905 7151, 0408 259 155
Buy and sell good quality sandstone.

Scrap Metal
Also see Mixed Waste as many facilities also accept scrap metal.

CITY & EAST

Anglo Metal
373-377 Belmont St Alexander
9557 4487
Buy metal products. Eg. Computer equipment, electric motors, non-ferrous metals (aluminium, lead, zinc, copper etc).

George Campbell & Co
18 Hutchinson St St Peters
9519 6821
7am-4.30pm (Mon-Fri) 7am-12pm (Sat)
Buy all non ferrous products and metals and large quantities of steel. Any condition, more paid for uncontaminated metals.

Sell & Parker
15 Amelia St Waterloo
9319 2633
6am-5pm (Mon-Fri) 6.30am-2.30pm (Sat)
Buy all ferrous and non ferrous metals and metal products, including whitegoods. Any condition, higher price for separated non ferrous metals.

Scrap Metal
Also see Mixed Waste as many facilities also accept scrap metal.

INNER WEST

Aaron Scrap Metal
9 Chalder St Marrickville
9557 1617
8am-4.30pm (Mon-Fri) 8am-11am (Sat)

Auscrap
26 Gladstone St Newtown
9516 3078
7.30am-3.30pm (Mon-Fri) 7.30am-12pm (Sat)
Cash buyers of all types of scrap metal. Pick up service available.

Cookes Metal Recyclers
82 Asquith St Silverwater
9748 1564
8am-4pm (Mon-Thurs). 8am-2pm (Fri-Sat)

North Shore Scrap Metal Recyclers
Rear of 100 West St Crows Nest
9955 3337
7.30am-4.30pm (Mon-Fri) 8am-11am (Sat)
Buy all ferrous and non ferrous metals. Any condition. Unlimited, pick up 50-100kg minimum.

NORTH WEST

All Steel Merchant & Brokers
43-45 Princes St Riverstone
9838 1533
8am-6.30pm
Buy and sell beams, columns, plates, pipe and rail (all steel stocks). Also brokerage and stock purchasing fortnightly update on materials available via customer fax-board list (free service).

Hornsby Scrap Metal
39a King Rd Hornsby
9477 5702
8am-4.30pm (Mon-Fri) 8am-11.30 (Sat)
Buy products and metals. For example; copper, zinc, aluminium, stainless steel etc. Any condition. Unlimited. Imports resold to public. Pick up available. Will accept steel but will not buy it.

WEST

Burns H E & Sons
15 Welder St Seven Hills
9624 6666
7am-4pm (Mon-Fri) 7am-1pm (Sat)
Buy all non ferrous products and metals specialising in aluminium and stainless steel. Source separated materials only. Unlimited. Preference for stainless steel sheets.

Cookes Metal Recyclers
82 Asquith St Silverwater
9748 1564
8am-4pm (Mon-Thurs). 8am-2pm (Fri-Sat)
Scrap Metal continued...

Dickson Recycle Industries
40 Victoria St Smithfield 9725 1711
Recycle copper, non-ferrous and steel.

Foundry Metals Pty Ltd
4 Donald St Guildford 9892 3788
7am-4:30pm (Mon-Fri) 7am-12pm (Sat)
Buy all non ferrous products and metals and small amounts of reusable steel. Any condition, separated preferred. Unlimited if delivered pick up. 1 tonne minimum. Resold to manufacturers except small quantities of reusable steel piping sold to public. No sealed containers accepted.

J&M Metals
13 Long St Smithfield 9725 2363
7am-5pm (Mon-Sat)
Buy all ferrous and non ferrous metals and metal products. Any condition, higher price for separated non ferrous metals. Unlimited if delivered or based on bin dimensions.

MRI
163 Chifley St Smithfield 9729 4999
Accept scrap metal from electronic, electrical equipment and appliances and old and reusable computers. Some they salvage, some they upgrade and resell. They may charge for collection if nothing salvageable. If they are quite usable, they may pay up to $50 each. Charge $15 to drop off a monitor.

Norman’s Scrap Metal
6 Bligh St Auburn 9748 0611
7:30am-5pm (Mon-Fri) 7:30am-4pm (Sat)
Buy all ferrous and non ferrous metals and metal products. Any condition, higher price for separated non ferrous metals.

Parramatta Scrap Metal
12 North Rocks Road Nth Parramatta 9630 2974
7:30am-4pm (Mon-Fri) 7:30am-12pm (Sat)
Buy all non ferrous products and metals. Any condition. Unlimited if delivered, 1 tonne minimum pick up.

RecycleCorp
230 Toongabbie Rd Girraween 9769 0999
8am-5pm (Mon-Fri) 8am-3pm (Sat-Sun)
Buy all metals including old fridges, stoves, beams, taps, piping, awnings. Any condition, separated preferred. Unlimited - pick up on inspection.

Sell & Parker
45 Tattersall Rd Blacktown 9621 2633
6am-5pm (Mon-Fri) 6:30am-2.30pm (Sat)
Buy all ferrous and non ferrous metals and metal products, including whitegoods. Any condition, higher price for separated non ferrous metals.

Western District Scrap Metal
30 Tattersal Rd Blacktown 9622 4528
7am-4:30pm (Mon-Fri) 7am-12pm (Sat)
Buy all ferrous and non ferrous metals and metal products. Any condition, higher price for separated non ferrous metals.

Norman’s Scrap Metal
34 Peachtree Rd Penrith 02 4732 1683
7:30am-5pm (Mon-Fri) 7:30am-4pm (Sat)
Buy all ferrous and non ferrous metals and metal products. Any condition, higher price for separated non ferrous metals.

Parramatta Scrap Metal
12 North Rocks Road Nth Parramatta 9630 2974
7:30am-4pm (Mon-Fri) 7:30am-12pm (Sat)
Buy all non ferrous products and metals. Any condition. Unlimited if delivered, 1 tonne minimum pick up.

RecycleCorp
230 Toongabbie Rd Girraween 9769 0999
8am-5pm (Mon-Fri) 8am-3pm (Sat-Sun)
Buy all metals including old fridges, stoves, beams, taps, piping, awnings. Any condition, separated preferred. Unlimited - pick up on inspection.

SOUTH WEST

All Metal Industries
10 Gordon Parker St Revesby 9773 9284
Buy all ferrous and non-ferrous metals, cable, transformers.

AMR
16 Woorang St Milperra 9792 1366
7:30am-4pm (Mon-Fri) 7:30am-12pm (Sat)
Buy and accept all non ferrous scrap metal and metal products. Zinc, copper, aluminium, brass, lead, stainless steel, batteries etc. Will accept steel but will not buy it.

Barca Metals
24-28 Childs Rd Chipping Norton 9725 6411
7am-5pm (Mon-Fri) Sat 8am-1pm (Sat)
Buy all ferrous and non ferrous metals and metal products. Car bodies, whitegoods, steel, batteries, radiators. Any condition, higher price for separated non ferrous metals.

Resource Recycling Technology
3b Williamson Rd Ingleburn 9618 5655
9am-5pm (Mon-Fri)
Buy /accept all ferrous and non ferrous metals, metal products, cable, computers, mainframes. Any condition, higher price for separated non ferrous metals. Unlimited if delivered, 1 tonne min pick up. Recoverable materials sent to appropriate recyclers.

Riverside Metal Industries
37 Violet St Revesby 9711 1122
7:30am-3pm (Mon-Thur) 7:30am-12.30pm (Fri)
Buy all ferrous, non- ferrous metals and metal products. Separated metals only Unlimited. Ingots sold to industry. Supply and collect bins for metal separation to industry.

Sanalco Pacific
1 Monier Square (off Liewellyn Ave) Villawood 9725 6699
7:15am-5:30pm (Mon-Fri) 7am-12pm (Sat)
Buy all non ferrous products and metals specialising in copper electrical cable. Any condition, more paid for uncontaminated metals. Unlimited if delivered. 1 tonne minimum pick up. Imports resold to public. Will accept steel in very large quantities if pre-arranged.

Southern Cross Metals
13-17 Yamma St Sefton 9645 1444
7:30am-4pm (Mon-Fri) 8am-12pm (Sat)
Buy all non ferrous products and metals. Any condition, more paid for uncontaminated metals. Unlimited. Imports resold to public. Will accept steel but will not buy it.

SOUTH

All Metal Industries
17 Tumbridge St Ramsgate 9529 4423
7am-4pm (Mon-Fri)
Buy all ferrous and non ferrous metals and metal products, cable, computers, mainframes. Any condition, higher price for separated non ferrous metals. Unlimited if delivered, 1 tonne min pick up. Recoverable materials sent to appropriate recyclers.

Chantler’s Metal Recyclers (NSW)
31 Captain Cook Drive Caringbah 9524 8813
7am-5pm (Mon-Fri) 7am-12pm (Sat)
Buy all metals including old fridges, stoves, beams, taps, piping, awnings etc. Any condition. Unlimited - pick up on inspection.
Scrap Metal continued...

Hitechnology Metal Recyclers
25 Park Rd Hurstville
9585 0113
Recycle metals from computer components.

Metal Salvage Industries
1 Anderson St Botany
9790 7466
Buyers of all ferrous and non-ferrous scrap metal and insulated cable.

MULTIPLE LOCATIONS

Metalcorp Recyclers
Head Office 9922 4622
Buy all metals including old fridges, stoves, beams. Any condition. Unlimited if delivered or based on bin dimensions. 3 tonne minimum.

DEPOTS:
7am-4pm (Mon-Fri) 7am-11am (Sat)
79-81 Stephen Rd 2019 Botany
9666 4157
53 - 57 Riverside Rd Chipping Norton
9755 3000
56 Somerset St Minto
9820 3509
47 Cowpasture Rd Wetherill Park
9756 2635

Simsmetal
Head Office 9771 6711
Buy and accept all non ferrous scrap metal and metal products. Any condition, separated preferred. Unlimited. Zinc, copper, aluminium, brass ingots. Materials are bought/accepted/charged for depending on the quality and quantities.

Resource NSW – Construction & Demolition Recycling Directory 32

Santa Maria Tiles
196 Avoca St Randwick
9399 6368
9.30am-5pm (Mon-Fri) 9.30am-1pm (Sat)
Specialists in old and discontinued tiles. Buy and sell.

Tree Trunks & Roots
See Wood Waste / Garden Organics.

Waste Management Centres
Artarmon, Auburn, Belrose, Chullora, Eastern Creek, Jacks Gully, Lucas Heights, Rockdale, Ryde, Seven Hills
1300 651 116
Accept aluminium, copper, brass and steel. Up to 200kg per visit. Also accept whitegoods (fridges, stoves and washing machines), up to 4 per visit and car bodies (only at Chullora, Eastern Creek, Narellan, Lucas Heights and Rockdale), 1 per visit. All fluids are to be drained. Larger loads are accepted at some centres.

Soil & Rubble
See Wood Waste / Garden Organics, VENM, Mixed Waste and Concrete / Brick / Tile (accepted for reprocessing).

Timber
For sellers of secondhand timber, also see Building Materials & Demolition Yards.
For untreated timber not suitable for reusing see Garden Organic / Timber Waste.

Artistic Popular Furniture
10 Raglan Rd Auburn
9644 3054
Buy good quality salvaged oregon for use in furniture manufacture.

Ironwood (Formerly Rozelle Recycled Building Centre)
88-90 Lilyfield Rd Rozelle
9818 1166
7am-5:30pm (Mon-Fri) 9am-3pm (Sat)
Millers and merchants of reclaimed and recycled timber. For staircases, treads, stringers, risers, post & handrails, exposed beams, decking, table tops and flooring.

Kauri’d Away
Shop 6 49 Waterloo St Narrabeen
9970 5522, 0402 705 470
8am-5pm (Mon-Fri)
Buy timber and old pieces of furniture. Older growth timbers preferred. Make furniture from recycled timber.

Kimbriki Recycling & Waste Disposal Centre
Kimbriki Rd Terrey Hills
9486 3512
7am-5pm (Mon-Sun)
Accept maximum of five. Fees apply.

Second Hand Building Centre
Rear 432b West Botany St Rockdale
9567 1322
7.30am-5pm (Mon-Fri) 8am-4pm (Sat)
Buy and sell dressed hardwood and oregon suitable for flooring, joinery, large structural timbers, posts and beams.

Tyres
Rubber Recycling Pty Ltd
2/51 Day St Lansvale
9724 6511
8am-5pm (Mon-Fri)
Charge for accepting passenger and light truck tyres. Any condition. Unlimited. No large truck tyres.

Tyrecycle
Cnr Mamre & Erskine Park Rds Erskine Park
9834 6111
Accept all tyres. Fees apply. Pick up service available.

Waste Management Centres
Artarmon, Auburn, Belrose, Chullora, Eastern Creek, Jacks Gully, Lucas Heights, Rockdale, Ryde, Seven Hills
1300 651 116
Whole car tyres accepted at all facilities. Artarmon, Auburn, Belrose, Chullora, North Ryde, Rockdale and Seven Hills only 5 per visit. Large whole tyres accepted at Jacks Gully and Lucas Heights. (Must be pre-booked). Fees apply.
VENM
VENM is virgin excavated natural material.

Holt Land Rehabilitation Centre
Lot 2 Captain Cook Drive Kurnell
9923 1645
Call for an application form.

M.L. Friend’s Earthworks
0438 393 003, 0409 393 003
Arranges DA approved sites to accept topsoil, clay, clay/shale, shale, sandstone, concrete, general clean and hard fills. Materials accepted and supplied for, soil redemption, water retention bays, creek restoration, landscaping, markets gardens and landfill requirements.

Windows
See Building Materials & Demolition Yards and Glass – Laminated and Plate.

Whitegoods
For recycling of whitegoods see Scrap Metal. Some Mixed Waste facilities also accept white goods for recycling.

Best Buy Appliances
22 Parramatta Rd Lidcombe 9647 2110
Buy and sell whitegoods (dishwashers, dryers, fridges and washing machines).

Crazy Charlies
12 City Rd Chippendale 9211 4558
Buy and sell all reconditioned whitegoods. Dishwashers, dryers, fridges, washing machines.

Ghama Electrics
1428 Canterbury Rd Punchbowl 9796 7299
Buy and sell stoves, fridges, washers, dryers and air conditioning.

O’Leary Electrical
7 Ramsay St Five Dock 9712 5499
Buy and sell used electrical and gas stoves. Prefers gas stoves.

Recon Appliances
88 New Canterbury Rd Petersham 9568 2446
Sell reconditioned stoves and fridges. Buy stoves in quantity.

The Battlers Friend
36 Parramatta Rd Stanmore 9516 3161
Buy and sell reconditioned fridges and washing machines.

Waste Management Centres
Artarmon, Auburn, Belrose, Chullora,
Eastern Creek, Jacks Gully, Lucas Heights,
Rockdale, Ryde, Seven Hills
1300 651 316
Accept white goods – fridges, stoves and washing machines – up to 4 per visit – for recycling.

Wood Waste/Garden Organics

NORTH
Active Tree Services
9 McCowan Rd Ingleside 9450 2977
Hours to suit client
Accept, timber, timber off cuts and garden organics. No steel or concrete in material. Can handle nails, bolts and dirt. Unlimited quantities. Sell mulch and compost. Material recycled to be used on site or sold by client, or Active Tree Services will collect excess. Mobile service equipment for on site works. Delivery and collection available.

Artarmon Waste Management Centre
Lanceley Place Artarmon 1300 651 116
1am-5pm (Mon-Fri) 5am-5pm (Sat)
7am-5pm (Sun)
Accept timber, pallets, crates, fence palings, grass clippings and prunings. Weeds are accepted for composting if pre-sorted from mixed waste. Tree branches/timber up to 1m long/150mm diameter. Must not be chemically treated, painted, stained or contain other materials such as bricks, metals or general rubbish. Fees apply.

Belrose Waste Management Centre
Crozier Rd Belrose 1300 651 116
6am-5pm (Mon-Fri) 7am-5pm (Sat)
8am-5pm (Sun)
Accept same as for Artarmon WMC.

Kimbriki Recycling & Waste Disposal Centre
Kimbriki Rd Terrey Hills 9486 3512
7am-5pm (Mon-Sun)
Accept all garden organics, untreated and unpainted timber. Must be separated. Unlimited quantities. Fees apply except to small resident loads. Sell mulch. Will deliver commercial quantities of mulch.

NORTH WEST
Bio-Recycle
302 Windsor Rd Vineyard 02 4577 6610
7am-5pm (Mon-Fri)
Accept branches, trees, grass clippings, soil. Prefer clean, unbagged materials. 30 cubic metres minimum. Buy/charge depending on quality. Sell compost, soil mix and top dressing. Delivery and collection available.

Ryde Waste Management Centre
Wicks Rd Ryde 1300 651 116
5am-5pm (Mon-Fri) 7am-5pm (Sat-Sun)
Accept timber, pallets, crates, fence palings, grass clippings, prunings. Weeds are accepted for composting if pre-sorted from mixed waste. Tree branches/timber up to 1m long/150mm diameter. Must not be chemically treated, painted, stained or contain other materials such as bricks, metals or general rubbish. Fees apply.
**SOuth West**

**Australian Native Landscape**
Lot 22 Martin Rd  Badgerys Creek
9450 1444
7am-5pm (Mon-Fri) 7am-4pm (Sat)
Accept timber, timber off cuts, garden organics and excavated soil/sand. Reasonable and separated preferred. Sell soil mixes/conditions/top dressing/compost, chips and mulch. Materials are bought/sold/charged for depending on the quality and quantities. Delivery and collection available.

**Camden Soil Mix**
Glenlee Rd  Narellan
02 4658 1647
7am-4:30pm (Mon-Fri) 7am-12pm (Sat)
Receive and process all timber waste including building waste, pallets and assorted wood waste. Products produced include mulches, decorative mulches, alternative energy fuels, base material for particleboard and compost.

**Ecocycle**
155 Newton Rd  Wetherill Park
9757 2999
6:30am-5:30pm (Mon-Fri) 6:30am-2pm (Sat)
Accept segregated untreated timber and wood waste. Fees apply.

**Elizabeth Drive Landfill Facility**
1725 Elizabeth Drive  Kemps Creek
02 4774 8866
7am-5pm (Mon-Fri)
Accept separated untreated wood waste for mulching. Fees apply.

**Hannas**
3 Duck St  Auburn
9748 4994
5am-8pm (Mon-Fri) 6am-4pm (Sat)
7am-3.30pm (Sun) Extended hours by arrangement
Accept untreated timber for mulching and recycling. Fees apply.
**Licensed Landfills continued...**

**Eastern Creek Waste Management Centre**  
Wallgrove Rd, Eastern Creek  
1300 651 116  
7am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)  
Solid Waste Landfill.

**Elizabeth Drive Landfill Facility**  
1725 Elizabeth Drive, Kemps Creek  
02 4774 8866  
7am-5pm (Mon-Fri)  
Inert, Hazardous, Industrial and Solid Waste Landfill.

**Enviroguard**  
Cnr Mamre & Erskine Park Rds, Erskine Park  
9834 3411  
6am-4:30pm (Mon-Fri) 7am-3:30pm (Sat-Sun)  
Solid Waste Landfill.

**Kari & Ghossayn**  
Lot 17-23 Elizabeth Drive, Kemps Creek  
9826 1137  
7am-5pm (Mon-Fri) 7am-1pm (Sat)  
Solid Waste Landfill.

**Penrith Waste Services**  
842 Mulgoa Rd, Mulgoa  
02 4773 8778  
6am-4:45pm (Mon-Fri) 7am-3:45 (Sat)  
9am-2:45pm (Sun)  
Solid Waste Landfill.

**SOUTH**

### SOUTH WEST

**Glenfield Waste Disposals**  
Campbell St, Glenfield  
9601 8766  
6:30am – 4.20pm (Mon-Sat)  
Solid Waste Landfill.

**Jacks Gully Waste Management Centre**  
Richardson Rd, Narellan  
1300 651 116  
6am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)  
Solid Waste Landfill.

**Lucas Heights Waste Management Centre**  
New Illawarra Rd, Lucas Heights  
1300 651 116  
6am-4pm (Mon-Fri) 8am-5pm (Sat-Sun)  
Solid Waste Landfill.

**Kurnell Landfill**  
Captain Cook Drive, Kurnell  
9668 8539  
6am-4pm (Mon-Sat)  
Inert Waste Landfill.

**CITY & EAST**

**Dial A Dump**  
Albert St, St. Peters  
9327 7777

**Reefway**  
3-7 O’Riordan St, Alexandria  
9310 5311

**INNER WEST**

**Aussie Skips**  
84-108 Madeline St, South Strathfield  
9712 5356

**NORTH**

**Bosscher Bins**  
2 Nerang St, Terrey Hills  
9450 1974

**North Shore Skips**  
1300 364 991, St. Ives

**NORTH WEST**

**Collex**  
127 Burfitt Rd, Schofields  
9642 6977

**WEST**

**Complete Waste & Recycling**  
19-23 Fariola St, Silverwater  
9737 9977

**J&M Waste**  
13-16 Long St, Smithfield  
9725 2363

**SOUTH WEST**

**Austwaste**  
12a Glenfarne Rd, Bexley  
9554 8077

**Has-A-Bin**  
35 Wentworth St, Greenacre  
9642 1477

**SOUTH**

**Collex**  
38 McPherson St, Banksmeadow  
9642 6977

---

**Skip Companies With Their Own Sorting Facilities**

Companies need approval to sort, store, transfer, separate or process construction and demolition waste. Larger facilities require a licence from the EPA. For the up-to-date list of licenced facilities and the conditions of the licence visit this website: www.epa.nsw.gov.au/prpoeo

Contact the local council for other approved facilities in your area.
Mixed Waste

Also see Licenced Landfills.

Some facilities accept mixed waste and either sort it for recycling or compact it and take it to a landfill. Some are cheaper than others as they are geared up to recycle heavy materials like concrete, brick etc. Check to see if they are open to the public or accept hand unloading of vehicles.

NO ASBESTOS is accepted at these facilities.

CITY & EAST

Tip Fast
5a Canal Rd St. Peters
9557 4900
6:30am-5pm (Mon-Fri) 7-3pm (Sat)
Accept mixed building and demolition waste.
Sorted for recycling. Call for a quote.

NORTH

Artarmon Waste Management Centre
Lanceley Place Artarmon
1300 651 116
1am-5pm (Mon-Fri) 5am-5pm (Sat)
7am-5pm (Sun)
Accept mixed waste. No asphalt, bricks, cement, concrete or terra-cotta accepted. Also accept metal and whitegoods for recycling (limits apply).

Belrose Waste Management Centre
Crozier Rd Belrose
1300 651 116
6am-5pm (Mon-Fri) 7am-5pm (Sat)
8am-5pm (Sun)
Accept mixed waste. No asphalt, bricks, cement, concrete or terra-cotta accepted. Also accept metal and whitegoods for recycling (limits apply).

What’s Waste
Meatworks Ave Oxford Falls
9975 1792
7am-5pm (Mon-Fri) 6am-12 (Sat)
Accept mixed building and demolition waste.
Sorted for recycling.

NORTH WEST

Ryde Waste Management Centre
Wicks Rd Ryde
1300 651 116
5am-5pm (Mon-Fri) 7am-5pm (Sat-Sun)
Accept mixed waste. No asphalt, bricks, cement, concrete or terra-cotta accepted. Also accept metal and whitegoods for recycling (limits apply).

Ecocycle
155 Newton Rd Wetherill Park
9757 2999
6:30am-5:30pm (Mon-Fri) 6:30am-2pm (Sat)
Accept mixed asphalt, concrete, brick, bitumen, sand, sandstone, soil, other hardfills, landscape materials, plasterboard, timber and wood waste. Fees apply.

Greenacre Transfer Station
75 Anzac St Greenacre
9707 1709
Only closed between 5:30pm-8:30pm (Mon-Fri)
Closes 3pm on Saturday and reopens 8:30pm Sunday
Accept mixed waste.

discount Recyclers
6 Grand Ave Rosehill
9898 3444
5:30am-5pm (Mon-Fri) 6am-12pm (Sat)
Accept builders waste, concrete, bricks, dirt, asphalt, etc.

PMT Transfer Station
81 Gow St Padstow
9709 2773
6am-5pm (Mon-Fri) 7am-2pm (Sat)
Accept all excavation material, mixed construction and demolition waste subject to inspection. Recycled roadbase, aggregates, fill soil, topsoil, limited building materials available for sale. Tyres, stumps, fibro, carpet, mattresses contaminated soil and liquid wastes not accepted. Reduced charges for separated loads.

SOUTH WEST

Chullora Recycling Park
Muir Rd Chullora
1300 651 116
2am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept mixed waste. No asphalt, bricks, cement, concrete or terra-cotta accepted. Also accept metal and whitegoods for recycling (limits apply).

Ecocycle
155 Newton Rd Wetherill Park
9757 2999
6:30am-5:30pm (Mon-Fri) 6:30am-2pm (Sat)
Accept mixed asphalt, concrete, brick, bitumen, sand, sandstone, soil, other hardfills, landscape materials, plasterboard, timber and wood waste. Fees apply.

Belrose Waste Management Centre
Hill Rd Auburn
1300 651 116
4:30am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept mixed waste. No asphalt, bricks, cement, concrete or terra-cotta accepted. Also accept metal and whitegoods for recycling (limits apply).

Hannas
3 Duck St Auburn
9748 4994
5am-8pm (Mon-Fri) 6am-4pm (Sat)
7am-3:30pm (Sun)
Extended hours by arrangement
Accept mixed demolition material, concrete, brick, roof tile, tile, clean masonry fill, untreated timber, site clearing/granular fill and soil for recycling. Also accept scrap metal.

Brandown
Lot 9, Elizabeth Drive Kemps Creek
9826 1256
6am-5:45pm (Mon-Fri) 6am-4:45pm (Sat)
8am-4:45pm (Sun-Public Hols)

Seven Hills Waste Management Centre
Powers Rd Seven Hills
1300 651 116
6am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept mixed waste. No asphalt, bricks, cement, concrete or terra-cotta accepted. Also accept metal and whitegoods for recycling (limits apply).
Mixed Waste continued...

SOUTH

Collex Building Recyclers
38 McPherson St
Banksmeadow
9316 6333
7am-4:30pm (Mon-Fri) 7am-12:30pm (Sat)
Closes half an hour earlier for hand unloading.
Accept mixed building and demolition waste. Sorted for recycling.

Kurnell Landfill
Captain Cook Drive
Kurnell
9668 8539
6am-4pm (Mon-Sat)
Accept mixed demolition material including concrete, masonry, reinforced concrete, roofing, timber and other building materials. Cheaper if separated.

Port Botany Transfer Station
Military Rd
Matraville
9311 0166
3am-5:30pm (Mon-Fri) 5am-12pm (Sat)
Accept mixed waste.

Rockdale Waste Management Centre
Lindsay St
Rockdale
1300 651 116
6am-5pm (Mon-Fri) 8am-5pm (Sat-Sun)
Accept mixed waste. No asphalt, bricks, cement, concrete or terracotta accepted. Also accept metal and whitegoods for recycling (limits apply).

Illegal Waste Dumping

To report illegal dumping call the EPA Pollution Line 13 1555 and ask for the RID Squad.
Information about illegal waste dumping and protection for landowners from unscrupulous dumpers can be found at this website: www.epa.nsw.gov.au/waste/s143notice.htm

The Following Yellow Pages Listings May be Useful

This recycling directory is intended as a quick reference guide to assist builders, demolishers and renovators. Search the Yellow Pages for additional service providers. Try looking under these headings:

Auctioneers General
Asbestos Removal and/or Treatment
Building Materials - Second-hand
Demolition - Contractors & Equipment
Recycling Equipment
Recycling Services

Rubbish Removers
Scrap Metal Merchants
Second-hand Dealers
Stone Masons
Waste Reduction and Disposal Equipment
Waste Reduction & Disposal Services

Newspaper Classifieds

Newspaper classifieds are a good place to find secondhand materials or advertise materials that are too good to throw away. Here are a few places worth looking or advertising in.

Daily Telegraph
9288 2000
http://classifieds.news.com.au
Have a Building Materials category in the classifieds section.
Deadline for advertising is 5pm Friday.

Sydney Morning Herald
13 2535
www.market.fairfax.com.au
Have a Building Materials category in the Herald Trader section.
Deadline for advertising is 8pm Thursday.

The Land
02 4570 4444
www.theland.com.au
Deadline for advertising by phone is 3pm Tuesday, by fax is 2pm Tuesday.

The Trading Post
13 26 26
www.tradingpost.com.au
Comes out Thursdays. Deadline for advertising by phone is 7pm Tuesday.

Sites Cleaning & Recycling Services

Sites R Us
02 4647 5613
Narellan
Will attend home construction sites and separate materials so they can be recycled. Provide waste management reports for council.

To report illegal dumping call the EPA Pollution Line 13 1555 and ask for the RID Squad.
Information about illegal waste dumping and protection for landowners from unscrupulous dumpers can be found at this website: www.epa.nsw.gov.au/waste/s143notice.htm
A to Z Guide

<table>
<thead>
<tr>
<th>Facility</th>
<th>Phone Number</th>
<th>Suburb/Town</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Charlton's Waste</td>
<td>0414 661 344</td>
<td>Kurnell</td>
</tr>
<tr>
<td>Paper Recycling</td>
<td>9668 9370</td>
<td>Kurnell</td>
</tr>
<tr>
<td>A1 Drums</td>
<td>9627 3707</td>
<td>Riverstone</td>
</tr>
<tr>
<td>Aaron Scrap Metal</td>
<td>9577 1617</td>
<td>Marickville</td>
</tr>
<tr>
<td>Abbey Drums And Pallets</td>
<td>9725 1919</td>
<td>Wetherill Park</td>
</tr>
<tr>
<td>Abca Cadabra Waste Oils</td>
<td>9626 7269</td>
<td>Quakers Hill</td>
</tr>
<tr>
<td>ABC Waste Oil Collection</td>
<td>9622 1190</td>
<td>Lalor Park</td>
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<tr>
<td>Able Waste Paper Recycling</td>
<td>9522 2221</td>
<td>Miranda</td>
</tr>
<tr>
<td>Active Tree Services</td>
<td>9450 2977</td>
<td>Inglewood</td>
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<tr>
<td>Affordable Pallets</td>
<td>8928 6899</td>
<td>Ingleburn</td>
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<tr>
<td>All Metal Industries</td>
<td>9529 4423</td>
<td>Ramsgate</td>
</tr>
<tr>
<td>All Metal Industries</td>
<td>9773 9284</td>
<td>Revesby</td>
</tr>
<tr>
<td>All Steel Merchant &amp; Brokers</td>
<td>9383 1533</td>
<td>Riverstone</td>
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<tr>
<td>Alpine Tree Removals</td>
<td>9651 2444</td>
<td>Dural</td>
</tr>
<tr>
<td>Amcor Botany Paper Mill</td>
<td>1800 819 000</td>
<td>Matraville</td>
</tr>
<tr>
<td>Amcor Paper Recycling</td>
<td>9642 8055</td>
<td>Erskine Park</td>
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<tr>
<td>Amcor Recycling</td>
<td>9549 3472</td>
<td>Miranda</td>
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<td>AMR</td>
<td>9792 1366</td>
<td>Milperra</td>
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<tr>
<td>Andrew O'Sullivan &amp; Associates</td>
<td>0416 284 228</td>
<td>Gebe</td>
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<tr>
<td>Anglo Metal</td>
<td>9575 4478</td>
<td>Alexandria</td>
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<tr>
<td>Architectural Heritage</td>
<td>9660 1000</td>
<td>Gebe</td>
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<tr>
<td>Araratan Waste Management Centre</td>
<td>1300 651 116</td>
<td>Auburn</td>
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<tr>
<td>Artistic Popular Furniture</td>
<td>9644 3054</td>
<td>Auburn</td>
</tr>
<tr>
<td>As Good As Used Building Materials</td>
<td>9673 5398</td>
<td>St Marys</td>
</tr>
<tr>
<td>Ask The Leighton, Brothers</td>
<td>9524 3779, 0410 400 770</td>
<td>Miranda</td>
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<tr>
<td>Associated Scrap Metal</td>
<td>9905 2240</td>
<td>Brookvale</td>
</tr>
<tr>
<td>Astron</td>
<td>9729 0500</td>
<td>Smithfield</td>
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<tr>
<td>Auburn Waste Management Centre</td>
<td>1300 651 116</td>
<td>Auburn</td>
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<tr>
<td>Auscrap</td>
<td>9516 3078</td>
<td>Newtown</td>
</tr>
<tr>
<td>Aussie Skip</td>
<td>9712 5366</td>
<td>South Strathfield</td>
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<tr>
<td>Australian Liquid Recyclers</td>
<td>9673 1550</td>
<td>St Marys</td>
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<tr>
<td>Australian Metal Cooperative</td>
<td>9319 6295</td>
<td>Alexandria</td>
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<tr>
<td>Australian Native Landscape</td>
<td>9450 1444</td>
<td>Badgerys Creek</td>
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<tr>
<td>Australian Solvent Recyclers</td>
<td>9883 7035</td>
<td>St Marys</td>
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<tr>
<td>Australian Waste Oil Refiners</td>
<td>9624 3055</td>
<td>Seven Hills</td>
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<tr>
<td>Austwaste</td>
<td>9550 8077</td>
<td>Bankstown</td>
</tr>
<tr>
<td>Balmain Stripping Factory</td>
<td>9560 3083</td>
<td>Leichhardt</td>
</tr>
<tr>
<td>Barca Metals</td>
<td>9726 6411</td>
<td>Chipping Norton</td>
</tr>
<tr>
<td>Barley Paper Recycling</td>
<td>0418 113 012</td>
<td>Newport</td>
</tr>
<tr>
<td>Barter Town Salvage</td>
<td>9826 1078</td>
<td>Kemps Creek</td>
</tr>
<tr>
<td>Bathurst Demolition Services</td>
<td>02 6323 6096</td>
<td>Bathurst</td>
</tr>
<tr>
<td>Belrose Waste Management Centre</td>
<td>1300 651 116</td>
<td>Belrose</td>
</tr>
</tbody>
</table>

Concrete Recyclers
- 9684 6811 | Camilla |
- 9748 1564 | Silverwater |
- 9211 4548 | Chippendale |
- 9787 3433 | Campsie |
- 9327 8278 | Double Bay |
- 0411 841 842 | Strathfield |

D & B Timber & Bricks
- 9833 0944 | Rozelle |
- 9867 5132 | St Marys |

Daily Telegraph
- 9288 2000 |

Davis Road Recycling & Waste Transfer Station
- 9609 3377 | Wetherill Park |
- 9518 9444 | Rozelle Bay |

Dial A Dump
- 9327 7777 | St Peters |

Dickson Recycle Industries
- 9725 1171 | Smithfield |

Donmar
- 9755 3305 | Lansvale |
- 9807 1363 | Erskine Park |
- 0414 802 384 | Ryde |

Drum & Waste Solutions
- 9725 1045 | Wetherill Park |

Drum Reconditioners (NSW)
- 9624 6545 | Seven Hills |

Eastern Creek Waste Management Centre
- 1300 651 116 | Eastern Creek |

EcoCycle
- 9757 2999 | Wetherill Park |

Elaborate Drive Landfill Facility
- 02 4774 8866 | Kemps Creek |

Enmore Box & Case
- 9560 2866 | Marrickville |

Envirogreen
- 02 4729 0136 | Castlecrag |

Environad
- 9834 3411 | Erskine Park Rd |

Environmental Waste Managers
- 02 4932 4466 | Rutherford |

EPA Pollution Line
- 13 1555 |

ERS Australia
- 9832 8766 | Gleneden |

Former Glory
- 9662 6068, 9666 3103 | Botany |

Foundry Metals Pty Ltd
- 9892 3788 | Guildford |

Gem Plastics International Pty Ltd
- 9833 3255 | St Marys |

George Campbell & Co
- 9519 6821 | St Peters |

Ghama Electrics
- 9796 7299 | Punchbowl |

Glenfield Waste Disposals
- 9601 8766 | Glenfield |

Greenacre Transfer Station
- 9707 1709 | Greenacre |

Greenwoods
- 0408 441 456 |

Hallinan's Recycling Centre
- 9833 0883 | St Marys |

Hallinan's Recycling Centre
- 0410 457 522 |

Hannas
- 9748 4994 | Auburn |

Has-A-Bin
- 9642 1477 | Greenacre |

Hassle Street, Road Material Recycling Centre
- 9609 7928 | Fairfield |

Hawkesbury City Waste Management Facility
- 02 4572 5488 | South Windsor |

Hitechonomy Metal Recyclers
- 9585 0113 | Hurstville |

Holt Land Rehabilitation Centre
- 9923 1645 | Kurnell |

Hornsby Scrap Metal
- 9477 5702 | Hornsby |

Industrial Solvents
- 9722 4433 | Revesby |

Ironwood Recycled Timbers
- 9818 1166 | Rozelle |

J & D Blue Wastepaper
- 9668 9237 | Kurnell |

J&M Metals
- 9725 2893 | Smithfield |

J&M Waste
- 9725 2736 | Smithfield |

Jacks Gully Waste Management Centre
- 1300 651 116 | Narellan |

Jacobson Metalband
- 9748 2487 | Silverwater |

Jarmax
- 9772 1197 | Padstow |

Jay & Kay Glass
- 9632 8588 | Smithfield |

JM Joseph
- 9368 1863 | Rydalmere |

Jones Waste Service
- 9774 4850 | Revesby |

Junkyard
- 02 4572 5211 | Londonderry |

K & G Dossay
- 9826 1137 | Kemps Creek |

Kauri'd Away
- 0402 700 475 | Nararey |

Kimbiriki Recycling & Waste Disposal Centre
- 9486 3512 | Terrey Hills |

Klies
- 02 4324 5036 | Gosford |

Knight's Syndicate
- 9629 5554, 9629 3864 | Roseville |

Kurnell Landfill
- 9601 4909 | Kurnell |

Landscape Rescue
- 0416 284 228 | Tamarama |

Lidcombe Liquid Waste Plant
- 9934 7129 | Homebush Bay |

Liverpool City Recyclers
- 9602 4330 | Moorebank |

Lucas Heights Waste Management Centre
- 1300 651 116 | Lucas Heights |

M.L. Friend's Earthworks & Associates
- 0416 284 228 | Ryde |

MAA Waste Disposal Centre
- 0438 393 003, 0409 393 003 |

Macquarie Drum Services
- 0457 2255 | Wilberforce |

MAG Foamwax
- 9649 6248 | Lidcombe |

Mason Transport
- Contact Boral Plasterboard |

Metal Salvage Industries
- 9790 4766 | Botany |

Metalcorp Recyclers
- 9666 4157 | Botany |

Metals and Recycling (Aggregates)
- 9519 3099 | St Peters |

Metropolitan Demolitions & Recycling (Building Materials)
- 9519 3283 | Kurnell |

Metropolitan Recycling
- 9821 3500 | Liverpool |

Mini-Cost Office Furniture
- 9647 2299 | Auburn |
To achieve a cleaner and more sustainable world, it is vital that commerce, government and the community work together to reduce waste. Resource NSW works across the State to encourage, facilitate and manage the process to achieve this aim.

To apply to have your facility listed in this directory, change your details, suggest improvements or request more copies, please contact:

C&D Project Team
Resource NSW
PO Box 644
Parramatta NSW 2124
Ph: 8837 6000
Fax: 8837 6099
Email: head.office@resource.nsw.gov.au
www.resource.nsw.gov.au
### APPROXIMATE COMPOSITION OF SYDNEY DEMOLITION/REFURBISHMENT MATERIALS

<table>
<thead>
<tr>
<th>Type of material</th>
<th>Older residential dwelling (%)</th>
<th>New residential dwelling (%)</th>
<th>Multi-storey office demolition (%)</th>
<th>Office internal refurbishment (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bricks and concrete/mortar</td>
<td>44</td>
<td>68</td>
<td>75</td>
<td>5</td>
</tr>
<tr>
<td>Internal walls/ceilings</td>
<td>2</td>
<td>8</td>
<td>7</td>
<td>55</td>
</tr>
<tr>
<td>Fittings: bathroom, kitchen, lights</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Floor coverings: carpets, tiles</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Metals/plastics/glass</td>
<td>5</td>
<td>2</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Timber</td>
<td>35</td>
<td>10</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Roof tiles</td>
<td>10</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

(Source: Reddrop 1996)

Note: The services of a quantity surveyor would be useful for larger projects. However, for the demolition of a dwelling house, the following data is provided as a rough guide. Demolition of a modest timber framed house will typically produce approximately 60 tonnes of materials, while a double brick house will produce approximately 120 tonnes of materials (Kinhill Engineers, 1991, p.22-23). To convert tonnes into volume (m³):

- **Timber**: 0.5 tonne = 1 m³
- **Concrete**: 2.4 tonne = 1 m³
- **Bricks**: 1 tonne = 1 m³
- **Tiles**: 0.75 tonne = 1 m³
- **Steel**: 2 – 4 tonne = 1 m³

(Source: Inner Sydney Waste Board 1998)

**Example**: An old, double brick house is to be demolished. The amount of waste materials likely to be generated is as follows:

<table>
<thead>
<tr>
<th>Total Waste Materials</th>
<th>= 120 tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timber</strong></td>
<td>= 35% x 120 tonnes = 42 tonnes of timber</td>
</tr>
<tr>
<td></td>
<td>∴ 42 tonnes of timber ÷ 0.5 = <strong>84m² of timber</strong></td>
</tr>
<tr>
<td><strong>Bricks and Concrete</strong></td>
<td>= 44% x 120 tonnes = 52.8 tonnes of bricks and concrete</td>
</tr>
<tr>
<td></td>
<td>= Say 25% x 52.8 tonnes is concrete = 13.2 tonnes of concrete</td>
</tr>
<tr>
<td></td>
<td>∴ 13.2 tonnes of concrete ÷ 2.4 = <strong>5.5m² of concrete</strong></td>
</tr>
<tr>
<td></td>
<td>= Say 75% x 52.8 tonnes are bricks = 39.6 tonnes of bricks</td>
</tr>
<tr>
<td></td>
<td>∴ 39.6 tonnes of bricks ÷ 1 = <strong>39.6m² of bricks</strong></td>
</tr>
<tr>
<td><strong>Tiles</strong></td>
<td>= 10% x 120 tonnes = 12 tonnes</td>
</tr>
<tr>
<td></td>
<td>∴ 12 tonnes of tiles ÷ 0.75 = <strong>16m² of tiles</strong></td>
</tr>
<tr>
<td><strong>Steel</strong></td>
<td>= 5% x 120 tonnes = 6 tonnes</td>
</tr>
<tr>
<td></td>
<td>= Say 25% x 6 tonnes is steel = 1.5 tonnes of steel</td>
</tr>
<tr>
<td></td>
<td>∴ 1.5 tonnes of steel ÷ 2 = <strong>0.75m² of steel</strong></td>
</tr>
</tbody>
</table>
PROCEDURES FOR THE REMOVAL AND DISPOSAL OF ASBESTOS FROM BUILDINGS

1. A Brief History

Inhalation of asbestos fibres is known to cause the chronic disease “Asbestosis”. Inhalation may also cause lung cancer and mesothelioma which can be fatal. A number of products used in the building and construction industry in Australia have been made from asbestos-cement. These products include flat corrugated or compressed asbestos-cement sheeting (fibro), fibro pipes (e.g. water, drainage and flue pipes), roofing shingles, guttering and flexible building boards (e.g. Villaboard, Hardiflex, Wundaboard, Flexiboard).

New fibrous-cement products no longer contain asbestos. However, prior to 1970 crocidolite (blue asbestos) was used in many building products including all those mentioned above. Asbestos was used in some asbestos-cement products up until 1986.

If these products are maintained in good order, they present no health risk. However, precautions must be observed during structural alteration or demolition involving asbestos-cement materials.

2. General Precautions

It is illegal to abrasive blast asbestos-cement products. For example, never water blast asbestos-cement roofing at high pressure in preparation for painting or waterproofing.

In general, work procedures should be designed to minimise dust and where possible, action should be taken to avoid the spread of any asbestos dust contamination. In particular, the following practices should be adopted:

2.1 Use non-powered hand tools such as handsaws, as these generate a smaller quantity of predominantly coarser dust or waste chips.

2.2 Wet down the material to reduce the release of dust when cutting. High pressure water jets must not be used.

2.3 Work with asbestos cement products in well ventilated areas and where possible, in open air.

2.4 Good work hygiene principles should be observed. This may entail the use of plastic drop sheets to collect off-cuts and course dust or the use of approved vacuum cleaning equipment. Where it is necessary to sweep floors, the area involved should be wetted to suppress dust.

2.5 All off-cuts and collected dust should be disposed of as asbestos waste in labelled plastic bags.

2.6 Approved respiratory protection should be used when appropriate, particularly in confined spaces.

3. Removal of Asbestos-Cement Sheeting

When removing asbestos-cement roofing, wall sheeting or other fibro products from buildings or other structures:

3.1 All windows and doors on the building should be closed. In factory-type buildings where there is no ceiling, the work area should be roped off.
3.2 The asbestos-cement sheets should be sealed or wetted with water (but not high pressure water jets). The sheets should not be wetted if this creates a risk of a worker slipping from a roof.

3.3 Workers should wear overalls and either approved disposable respirator or an approved half-face respirator mask fitted with dust cartridges approved for asbestos. On completion of works involving asbestos, all clothing worn by workers should be placed in plastic bags and laundered separate from all other clothes.

3.4 Power tools must not be used for asbestos work unless they have effective dust control devices.

3.5 Asbestos-cement sheets should not be removed with minimal breakage and should be lowered to the ground, not dropped.

3.6 The removed sheets should be stacked on a ground sheet and not allowed to lie about the site where there may be further broken down or crushed by machinery or site traffic.

3.7 All asbestos-containing waste should be kept wet, wrapped in two layers of PVC plastic (minimum thickness 200 microns) and removed from the site as soon as practicable, using covered bins or on a covered truck.

3.8 Any asbestos-cement residues remaining in the roof space or around the removal area should be cleaned up, using an approved vacuum cleaner if necessary.

4. Disposal of Asbestos-Cement Sheeting

Asbestos waste will only be accepted at depots approved by Waste Service NSW – Phone: 9934 7022. Waste Services (State Government) transfer stations and landfills include:

**WASTE MANAGEMENT CENTRES - TRANSFER STATIONS**

<table>
<thead>
<tr>
<th>ARTARMON</th>
<th>AUBURN</th>
<th>CHULLORA*</th>
<th>ROCKDALE</th>
<th>RYDE</th>
<th>SEVEN HILLS</th>
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<td>Muir Road</td>
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<td>9597 4506</td>
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<td>Yes</td>
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<td>Yes</td>
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</tr>
<tr>
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<td>6am to 5pm</td>
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<tr>
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ALL WASTE MANAGEMENT CENTRES ARE CLOSED ON GOOD FRIDAY AND CHRISTMAS DAY.

**WASTE MANAGEMENT CENTRES - LANDFILLS**

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<tr>
<th>BELROSE TRANSFER STATION</th>
<th>BELROSE LANDFILL</th>
<th>EASTERN CREEK LANDFILL</th>
<th>JACKS GULLY LANDFILL</th>
<th>LUCAS HEIGHTS LANDFILL</th>
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<td>Wallgrove Road</td>
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<td>Sat-Sun</td>
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</table>

ALL WASTE MANAGEMENT CENTRES ARE CLOSED ON GOOD FRIDAY AND CHRISTMAS DAY.

You should telephone the transfer station or landfill at least one (1) day ahead for current advice and charges. The above phone numbers are correct at the time of publication.
The intention of this brochure has been to alert builders and home owners of the need to properly dispose of asbestos.

While it is believed that the information (which is given in the interests of public health) is correct, Council can accept no liability of any injury or condition associated to persons in the removal of asbestos.

HORNSBY SHIRE COUNCIL
296 Pacific Highway, Hornsby
Postal Address:
PO Box 37
HORNSBY NSW 1630
DX 9655
Telephone: 9847 6666
Fax: 9847 6996
CONTROL OF PLACEMENT OF WASTE CONTAINERS IN A PUBLIC PLACE

HORNSBY SHIRE COUNCIL                  POLICY NO:   ESEEC 5

POLICY TITLE: CONTROL OF PLACEMENT OF WASTE CONTAINERS AND WASTE TRAILERS AND/OR BUILDING MATERIALS ON FOOTWAYS, NATURE STRIPS AND ROAD SHOULDERS.

MAJOR PROGRAMME: Environmental Education and Compliance

PROGRAMME MANAGER: Manager, Environmental Education and Compliance - Louise Gee

RELEVANT LEGISLATION:

FILE REFERENCE NO: REVIEW DATE:

POLICY OBJECTIVE/S

1. To control and regulate the placement of waste containers, waste trailers and/or building materials on footways, nature strips, road shoulders and other public places.

POLICY PROTOCOL

1. Waste Containers or Waste Trailers and/or Building Materials - Not to be Placed or Stored on Public Place

Council will not permit the storage of waste containers or waste trailers and/or building materials on a footway, nature strip, mall or road shoulder where waste containers or waste trailers and/or building materials can be located on private property.

2. Waste Containers, Waste Trailers and/or Building Materials - Storage on Public Place in Special Circumstances.

An owner or occupier of land, builder, or building applicant who deems that the placement of a waste container or waste trailer and/or building materials on a public footway, nature strip, mall or road shoulder is ABSOLUTELY NECESSARY for the reception of wastes, debris, building wastes and the like or building material and considers that the placement of the waste containers or waste trailer and/or building materials on private property from which the wastes, debris and building wastes will arise is not possible due to lack of space on the premises, he/she may lodge a written application with the Council. Such application shall be accompanied by the appropriate fee. Applications shall be lodged on Council's form provided for this purpose.

3. Storage of Waste Containers, Waste Trailers and/or Building Materials on Footway, Road Shoulders etc Subject of an Application - Not Necessarily Approved.

Council shall consider an application lodged in accordance with Clause 2 on the merits of the particular case and nothing in this section shall be construed that Council will approve and
issue a permit based on the submission of an application. Council may issue a permit, with or without conditions to be complied with, or may refuse to issue a permit if the circumstances of the case do not warrant the placement of the waste container, waste trailer and/or building materials on the footway, mall or road shoulder or such placement may endanger the safety of pedestrians or create a hazard to vehicular traffic.

4. **Insurance Cover**

An applicant for a permit shall provide, with the application, a certified copy of a current Public Risk and Property Damage Insurance Policy having a minimum cover of $5 million with Council's name adjoined to such policy clearly indicating that Council is indemnified against any claims arising from the placement of any waste container, waste trailer and/or building materials in connection with the property on public areas. The particulars of the site and the footway, nature strip, mall or road shoulder adjoining the site shall be clearly specified on that policy.

That insurance cover shall be maintained in full for the duration of the period that the container is in place.

5. **Placement of Container, Waste Trailer and/or Building Materials Not Before Permit.**

No waste container, waste trailer and/or building materials shall be placed on the footway, nature strip, mall or road shoulder until a permit has been obtained therefore beforehand.

6. **Definitions**

"**Waste Container, Building Waste Container (or builder skip)**" - means a container that is designed:-

6.1. to be used and re-used for the temporary storage and subsequent conveyance and disposal of builders' rubble, waste, tree loppings, household or other rubbish or earth (but not for the storage of putrescible or dangerous waste); and

6.2. to be removed from, returned to and carried by a vehicle that, when carrying the container, may lawfully be used on a public road.

"**Waste Trailer**" - means a registered vehicular trailer designed to contain and transport wastes.

"**Public Place**" - any street, road, land, thoroughfare, footpath, nature strip, or place open to or used by the public, and includes any place at the time open to or used by the public on the payment of money or otherwise.

"**Rear Panel of Waste Container**" - that panel which faces oncoming traffic behind the container.

7. **Acceptable Dimensions of Waste Containers**

Acceptable dimensions for waste containers to be placed on road shoulders or footpaths, footways, nature strips or malls are as follows:-
8. Visibility Requirements for Waste Containers or Waste Trailers on Public Places - Marking Plates, Reflectors, Warning Lights, Colour of Container

Where Council has approved the placement of a waste container or waste trailer on a road shoulder, footway or mall, the waste container shall comply with the following requirements to facilitate the visibility factors:-

8.1. Two rear marking plates, complying with the requirements which apply to heavy vehicles and trailers described in Paragraph 56A of Schedule F of the Motor Traffic Regulations shall be fitted to the rear panel of the waste container or waste trailer. Such plates shall be fitted as high as possible, one on each site of the rear panel, to give approaching vehicles the earliest possible warning of a container’s or trailer's presence on the road or footpath.

8.2. The waste container or waste trailer shall be placed in such a position to ensure that marking plates are visible to oncoming traffic.

8.3. Reflectoised tape shall be fixed and displayed on side panels and rear edges of the waste containers or waste trailers. Such reflectoised tape shall be at least 15cm wide and extend the full height of the sections indicated.

8.4. Waste containers or waste trailers shall be of bright colours (e.g., yellow, orange or white) to enable them to be easily discernible particularly during hours of darkness.

8.5. The name, address and phone number of the owner/supplier of the waste container shall be clearly and permanently marked on the container.

8.6. Waste containers or waste trailers shall be in good condition and in a clean condition prior to placement.

9. Use of Waste Containers

The Applicant and user of the waste container or waste trailer to whom a permit for the placement on a public place has been issued shall comply with the following requirements:-

9.1. The waste container or waste trailer shall be removed from the public place at the first available opportunity. Should a space on the building site become available to accommodate the waste container or waste trailer the applicant/user shall make immediate arrangements and have the container relocated to that space.

9.2. All waste stored in the waste container or waste trailer shall not protrude beyond the panels of the container.

9.3. All waste containers or waste trailers shall be adequately covered to prevent spillage of contents or litter or debris being windblown from the container.
9.4. No pollutive, hazardous, volatile, or explosive materials shall be placed in the container.

9.5. Any spillages of debris or waste materials around the container or trailer shall be immediately swept up and placed in the container.

9.6. No liquid waste shall be placed in the container.

10. Recovery of Council's Costs

10.1 Council has the right to order the immediate removal of any waste container, building materials or waste trailer which, due to its location, use, or any other factor, creates a danger, nuisance, or hazard to pedestrian traffic, vehicular traffic or residents of the neighbourhood. Should the applicant, user or permit holder fail to comply with that direction, Council may exercise its powers and arrange for the removal of the container or trailer and/or building materials disposal of the contents, and the storage of the container or trailer and may recover the costs incurred in a Court of competent jurisdiction.

10.2 Council has the right to require the clean up of the surrounds of a container or trailer which, due to the use or misuse of the container by the applicant, user, permit holder or any other person, creates a danger, nuisance and hazard and should the applicant or user fail to comply with that direction, Council may arrange for that clean-up of the surrounds and may recover the costs incurred in a Court of competent jurisdiction.

10.3 The permit holder, builder or owner shall be responsible for any costs involved in repairing any damage to any road, road shoulder, kerb and gutter, footway, street furniture or tree which occurs as a result of the placement or use of the container, trailer and/or building materials, Council may repair such damage should the permit holder default and may recover the costs of repairs in a Court of competent jurisdiction.

DATE OF ADOPTION/AMENDMENT: 10 December, 1997 (Report No ST71/97)

ASSOCIATED CODES:
ECOLOGICAL SUSTAINABILITY OF BUILDING MATERIALS

The following table contain a summary of the ecological sustainability of building materials commonly used in construction. It provides life cycle analysis of the materials and is a useful tool in choosing the materials in a building so as to minimise waste in the long term.

This table has been prepared by analysing different environmental criteria, summed up as “resource depletion” inherent pollution and embodied energy” and presenting in one word assessments from poor to excellent - against seven desirable environmental qualities developed by Bill Lawson and TAFE NSW (Lawson, 1996) (TAFE, 1997). For a more detailed analysis refer to Bill Lawson's’ publication “Building Materials Energy and the Environment: towards ecologically sustainable development” or the Building Material Ecological Sustainability INDEX: A numerical method for assessing the environmental impact of building materials produced by Partridge Partners Pty Ltd.

The assessment of the environmental sustainability of building materials listed does not consider other environmental aspects such as insulation, thermal gain, re-radiation and other performance related aspects. Council’s Energy Efficient Housing Policy requires a thermal assessment of the design of a building and building materials to be undertaken. Where any inconsistency exists Council's Energy Efficient Housing Policy should prevail.

N.B. The one word assessments range of the seven environmental factors which determine the ecological sustainability of building materials is provided as follows: poor, fair, good, very good, excellent. Where the environmental factors have a good or better rating for the majority of environmental factors, the building material is considered to have a good ecological sustainability for the purposes of assessment.

Where there is no rating given to a building material for a particular category of environmental assessment, there is no data available.

Where a N/A rating is given to a building product for a particular category of environmental assessment (i.e. asbestos) it means that this product is no longer used as a construction material. Any materials found within existing buildings which are being demolished should be disposed of in accordance with Council’s Code “Procedures for the Removal of Asbestos from Buildings”.

Appendix A3.01
Waste Minimisation and Management: Guide
Page 97
## ECOLOGICAL SUSTAINABILITY OF BUILDING MATERIALS

<table>
<thead>
<tr>
<th>Environmental Factors</th>
<th>Raw Material Availability</th>
<th>Minimal Environmental Impact</th>
<th>Embodied Energy Efficiency</th>
<th>Product Lifespan</th>
<th>Freedom from Maintenance</th>
<th>Potential for Product Reuse</th>
<th>Material Recyclability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregates (i.e. crushed rock, gravel and sand)</td>
<td>Fair</td>
<td>Poor</td>
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<td>Excellent</td>
<td>Very Good</td>
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<td>Product Lifespan</td>
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<td>-----------------</td>
<td>-------------------------</td>
<td>----------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Timber (Softwoods)</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>Timber (Hardwoods)</td>
<td>Fair</td>
<td>Fair</td>
<td>Excellent</td>
<td>Very Good</td>
<td>Good</td>
<td>Very Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Timber (Engineered Products)</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Fair</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Timber (Laminated Veneer Lumber)</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Good</td>
<td>Very Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Timber (Glulam)</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Good</td>
<td>Very Good</td>
<td>Fair</td>
</tr>
<tr>
<td>Timber (Plywood)</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Good</td>
<td>Very Good</td>
<td>Good</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Timber (MDG)</td>
<td>Excellent</td>
<td>Very Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td>Timber (Pineboard)</td>
<td>Excellent</td>
<td>Very Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Poor</td>
<td>Very Good</td>
</tr>
<tr>
<td>Water &amp; Waste</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

ESTIMATES OF WASTE MATERIALS IN THE CONSTRUCTION OF A DWELLING

<table>
<thead>
<tr>
<th>Type of material</th>
<th>Constitution of Waste Materials by Weight(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>1.1</td>
</tr>
<tr>
<td>Glass</td>
<td>-</td>
</tr>
<tr>
<td>Concrete</td>
<td>5.3</td>
</tr>
<tr>
<td>Bricks</td>
<td>52.4</td>
</tr>
<tr>
<td>Roof Tiles</td>
<td>23.5</td>
</tr>
<tr>
<td>Paper/Cardboard</td>
<td>0.4</td>
</tr>
<tr>
<td>Plastics</td>
<td>-</td>
</tr>
<tr>
<td>Timber</td>
<td>4.5</td>
</tr>
<tr>
<td>A/C Sheet</td>
<td>1.5</td>
</tr>
<tr>
<td>Plasterboard</td>
<td>8.7</td>
</tr>
<tr>
<td>Interior Tiles</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>99.6</strong></td>
</tr>
</tbody>
</table>

(Source: Reddrop, Ryan and Walker, 1997)

Note: The services of a quantity surveyor would be useful for larger projects. However, for the construction of a dwelling house, the following data is provided as a rough guide. The construction of a dwelling house results in approximately 13.3kg (or 0.0133 tonnes) of construction waste (excluding soil) for every m² of floor area (Reddrop, Ryan and Walker, 1997). The amount of excavated material (i.e. soil) picked up at final site clearing can range from 6 to 20 tonnes. On average about 10 tonnes of waste is sent from each building site to landfill. (Reddrop, Ryan and Walker, 1997). To convert tonnes into volume (m³):

- **Timber**: 0.5 tonne = 1 m³
- **Concrete**: 2.4 tonne = 1 m³
- **Bricks**: 1 tonne = 1 m³
- **Tiles**: 0.75 tonne = 1 m³
- **Steel**: 2 – 4 tonne = 1 m³

(Source: Inner Sydney Waste Board 1998)

**Example:** A brick veneer dwelling having a floor area of 200m² is to be constructed. The amount of construction waste materials likely to be generated is as follows:

- **Total Excavation Material** = 10 tonnes of excavation material
- **Total Building Waste Materials** = 200 x 0.0133 tonnes = 2.66 tonnes
- **Timber** = 4.5% x 2.66 tonnes = 0.1197 tonnes of timber
  \[ \text{\therefore 0.1197 tonnes of timber} \times 0.5 = 0.2394m^3 \text{ of timber} \]
- **Concrete** = 5.3% x 2.66 tonnes = 0.14098 tonnes of concrete
  \[ \text{\therefore 0.14098 tonnes of concrete} \times 2.4 = 0.3383m^3 \text{ of concrete} \]
- **Bricks** = 52.4% x 2.66 tonnes = 1.39384 tonnes of bricks
  \[ \text{\therefore 1.39384 tonnes of bricks} \times 1 = 1.39384m^3 \text{ of bricks} \]
- **Tiles** = 23.5% x 2.66 tonnes = 0.6251 tonnes of tiles
  \[ \text{\therefore 0.6251 tonnes of tiles} \times 0.75 = 0.46883m^3 \text{ of tiles} \]
- **Steel** = 1.1% x 2.66 tonnes = 0.02926 tonnes of steel
  \[ \text{\therefore 0.02926 tonnes of steel} \times 2 = 0.05852m^3 \text{ of steel} \]
## WASTE STORAGE CONTAINER SIZES & SHAPES

Including recycling allocation per unit

<table>
<thead>
<tr>
<th>Container style</th>
<th>Height overall in mm</th>
<th>Depth overall in mm</th>
<th>Width overall in mm</th>
<th>Approximate weight in KGS</th>
<th>Approximate volume in litres</th>
<th>Manufactured from/Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 ltr</td>
<td></td>
<td></td>
<td></td>
<td>Approximate weight in KGS</td>
<td>Approximate volume in litres</td>
<td>Manufactured from/Materials</td>
</tr>
<tr>
<td>MGB 120</td>
<td>925 mm</td>
<td>553 mm</td>
<td>490 mm</td>
<td>5.0 kgs</td>
<td>55 ltr</td>
<td>Plastic/Steel</td>
</tr>
<tr>
<td>MGB 140</td>
<td>929 mm</td>
<td>608 mm</td>
<td>560 mm</td>
<td>11.3 kgs</td>
<td>120 ltr</td>
<td>Plastic</td>
</tr>
<tr>
<td>MGB 240</td>
<td>1080 mm</td>
<td>715 mm</td>
<td>580 mm</td>
<td>11.4 kgs</td>
<td>140 ltr</td>
<td>Plastic</td>
</tr>
<tr>
<td>MGB 660</td>
<td>1320 mm</td>
<td>550 mm</td>
<td>1360 mm</td>
<td>16.0 kgs</td>
<td>240 ltr</td>
<td>Plastic</td>
</tr>
<tr>
<td>MGB 1100</td>
<td>1465 mm</td>
<td>1220 mm</td>
<td>1360 mm</td>
<td>50.0 kgs</td>
<td>660 ltr</td>
<td>Plastic</td>
</tr>
<tr>
<td>MGB 1500</td>
<td>1400 mm</td>
<td>1250 mm</td>
<td>2000 mm</td>
<td>65.0 kgs</td>
<td>1200 ltr</td>
<td>Plastic</td>
</tr>
<tr>
<td>MGB 3000</td>
<td>1400 mm</td>
<td>2200 mm</td>
<td>2000 mm</td>
<td>250.0 kgs</td>
<td>1500 ltr</td>
<td>Steel</td>
</tr>
</tbody>
</table>

### Recycling Area/Unit

<table>
<thead>
<tr>
<th>Container style</th>
<th>Height overall in mm</th>
<th>Depth overall in mm</th>
<th>Weight in KGS</th>
<th>Volume in litres</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGB 240</td>
<td>1080 mm</td>
<td>715 mm</td>
<td>16.0 kgs</td>
<td>240 ltr</td>
<td>Plastic</td>
</tr>
</tbody>
</table>

Containers are to be uniform on each residential property (Multiple collection/container styles are not allowed) except with the written permission of Council's Waste Management Team.
### GARBAGE VEHICLE CHARACTERISTICS

#### GARBAGE TRUCK (DOMESTIC)

| 9.7 Metre Garbage Truck Based on Vehicle for Residential Area Collections. | 26 cu/yds capacity  
25 tonne aggregate  
21.5 tonne tare weight |
|---|---|
| **Dimensions** | Height - 3.5 metres (Vertical Clearance 4.5m)  
Width - 2.4 metres (With Side Mirrors - 3m)  
Length - 9.7 metres  
Rear Load Overhang - 2.2 metres |
| **Best Turn Possible** | Turning Circle - 23 metres DIA  
Front Overhang - 22.5 metres DIA  
Front Outside Wheel -21.2 metres DIA  
Inside Rear Wheel - 14.35 metres DIA |
| **Left Turn Better Than Right Turn** | Front Overhang - 11.25 metres RAD  
Front Outside Wheel - 10.6 metres RAD  
Inside Rear Wheel - 7.17 metres RAD |

#### GARBAGE TRUCK (COMMERCIAL)

| 10.5 Metre Garbage Truck Based on Vehicle for Trade Waste | 26 cu/yds capacity  
25 tonne aggregate  
215 tonne tare weights |
|---|---|
| **Dimensions** | Height - 3.7 metres (Vertical Clearance 4.5m)  
Width - 2.5 metres (With Side Mirrors - 3m)  
Length - 10.5 metres  
Rear Load Overhand - 2.2 metres |
| **Best Turn Possible** | Turning Circle - 23 metres DIA  
Front Overhand - 23.8 metres DIA  
Front Outside Wheel - 22.25 metres DIA  
Inside Rear Wheel - 15.4 metres DIA |
| **No Difference in Either Lock** | Front Overhang - 11.9 metres RAD  
Front Outside Wheel - 11.9 metres RAD  
Inside Rear Wheel - 15.4 metres RAD |
The moebius loop or other recognised waste minimisation icon should be incorporated in signage to promote waste minimisation at the source point of waste re-use, recycling and disposal.

(Source: resource NSW (2002))
NOTES ON EASEMENTS

Developments proposing internal collection points, waste storage and recycling facilities and garbage and recycling rooms should provide convenient access and a truck turning area to enable the collection of the receptacles from within the property.

EASEMENT REQUIREMENTS:

An easement entitling the Council, its servants and agents and persons authorised by it, to enter upon the subject land and to operate thereon vehicles and other equipment for the purpose of garbage and recycling collection, shall be granted to the Council by the owner of the subject land at the cost of the applicant, prior to occupation of the development and prior to registration of any plan of subdivision or strata subdivision of the subject land.

Such easement shall be in a form acceptable to the Council and shall include covenants to the effect that in the absence of negligence on the part of the Council, its servants, agents and those authorised by the Council to enter the subject property, they will not be liable for any damage caused to the subject land or any part thereof, or to any property located therein or thereon by reason of the operation thereon of any vehicle or other equipment used in connection with the collection of the garbage and recycling and to the effect that the owner for the time being of the subject land shall indemnify the Council, its servants, agents and persons authorised by it, to collect garbage and recycling against liability in respect of such claims made by any person whomsoever.

Documentation for the provision of the easement is to be submitted with the Subdivision or Strata Application.

NOTE: An 88(b) instrument is an acceptable form of easement subject to the area effected by the easement not requiring renewal upon sale or transfer at any time.
Annexure to transfer granting easement from

...................................................................................................................................
to the Council of
the Shire of Hornsby over the land in certificate of title volume........................Folio .........................

TERMS OF EASEMENT

Full and free right for the Transferee its servants and agents and all persons authorised by the
Transferee to go, pass and repass over the whole of the land hereinbefore described as the servient
tenement at all times with or without vehicles for the purpose of collecting and removing garbage,
recycling and refuse from the servient tenement and for the purposes incidental thereto PROVIDED
ALWAYS that nothing herein contained shall entitle any person exercising the aforesaid rights to enter
any building private open space/courtyard except to the extent necessary to gain access to
garbage/recycling receptacles located therein in positions approved by the Transferee or to drive any
motor vehicle on to any part of the servient tenement which has not apparently been constructed or
provided for the purpose of a carriage way or parking area for vehicles and PROVIDED FURTHER
that if the servient tenement is hereafter subdivided pursuant to the Strata Titles Act (as amended) the
rights hereby granted shall be further restricted to the common property comprising in such strata plan
and any lot comprised therein shall be released from the easement hereby transferred.

The rights hereby granted may be exercised by the Transferee its servants, agents and all persons
authorised by the Transferee to enter the servient tenement without being liable for damage which
may be occasional to the servient tenement or any improvements thereon including any paving,,
driveways, footpaths, lawns, gardens, fences, walls, buildings or to the property of any person therein
or thereon otherwise than by reason of the negligence of the Transferee, its servants and agents
and/or of persons authorised by the Transferee.

Without limiting the generality of and notwithstanding anything hereinbefore contained, if any carriage
way or parking area and/or the adjacent land supporting the same is damaged by reason of the
movement thereon of any vehicle being used in connection with the collection of garbage/recycling
from the servient tenement neither the Transferee its servants and agents nor any person authorised
by the Transferee shall be liable in respect thereof. the Transferee its servants and agents and all
persons authorised by it to exercise the rights hereby granted shall be indemnified and be kept
indemnified by the Transferor its successors and assigns against all actions, suits, claims, demands,
proceedings, costs, charges, damages, or expenses whatsoever which may be brought or made,
instituted or claimed against and from them or any of them by the Owner or
occupier of the servient tenement or any part thereof or by any person in respect of any loss or injury
sustained or threatened or damages suffered or feared by any such person whether in property or
person as a consequence of any act or thing done or omitted by any person whilst upon the servient
tenement for the purpose of collecting garbage/recycling from the same or for a purpose incidental
thereto except where such loss, injury or damages result from the negligence of the Transferee its
servants, agents or of any person authorised by the Transferee as aforesaid.

Nothing herein contained shall oblige the Transferee to have garbage/recycling collections from points
within the servient tenement or shall prevent the Transferee from discontinuing collection from within
the servient tenement PROVIDED ALWAYS that if the Transferee discontinues collection of garbage
from within the servient tenement the Transferee and the registered proprietor for the time being of
the servient tenement shall respectively have the same rights and obligations with regard to the
removal of garbage/recycling from the servient tenement as they would have had if this transfer had
not been executed.

NOTE:- Council will accept a modified form of the easement in which the site of the easement
is specifically defined by a plan which will be annexed to the transfer.
## WASTE GENERATION RATES

<table>
<thead>
<tr>
<th>Type of Premises</th>
<th>Waste Generation</th>
<th>Recycling Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium/High and High Density</td>
<td>110L/unit/week</td>
<td>50L/unit/week</td>
</tr>
<tr>
<td>Multi-Unit Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backpackers accommodation</td>
<td>40L/occupant/week</td>
<td>20 litres/occupant/week</td>
</tr>
<tr>
<td>Boarding House, Guest House</td>
<td>60L/occupant/week</td>
<td>20 litres/occupant/week</td>
</tr>
<tr>
<td><strong>Food Premises</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butcher</td>
<td>80L/100m(^2)/floor area/day</td>
<td>Discretionary</td>
</tr>
<tr>
<td>Delicatessen</td>
<td>80L/100m(^2)/floor area/day</td>
<td>Discretionary</td>
</tr>
<tr>
<td>Fish Shop</td>
<td>80L/100m(^2)/floor area/day</td>
<td>Discretionary</td>
</tr>
<tr>
<td>Greengrocer</td>
<td>240L/100m(^2)/day</td>
<td>120L/100m(^2)/day</td>
</tr>
<tr>
<td>Hairdresser</td>
<td>60L/1.5m(^2)/floor area/day</td>
<td>Discretionary</td>
</tr>
<tr>
<td>Restaurants</td>
<td>10L/1.5m(^2)/floor area/day</td>
<td>2L/1.5m(^2)/day dining</td>
</tr>
<tr>
<td>Supermarket</td>
<td>240L/100m(^2)/floor area/day</td>
<td>240L/100m(^2)/day</td>
</tr>
<tr>
<td>Takeaway</td>
<td>80L/100m(^2)/floor area/day</td>
<td>Discretionary</td>
</tr>
<tr>
<td>Hotel</td>
<td>5L/bed/day</td>
<td>50L/100m(^2)/of bar &amp; dining areas/day</td>
</tr>
<tr>
<td>Licensed Club</td>
<td>50L/100m(^2)/bar/day</td>
<td>50L/100m(^2)/of bar &amp; dining areas/day</td>
</tr>
<tr>
<td>Motel (without public restaurant)</td>
<td>5L/bed/day</td>
<td>1L/bed/day</td>
</tr>
<tr>
<td></td>
<td>10L/1.5m(^2)/of dining area/day</td>
<td>10L/100m(^2)/day</td>
</tr>
<tr>
<td>Offices</td>
<td>10L/100m(^2)/day</td>
<td>10L/100m(^2)/day</td>
</tr>
<tr>
<td>Retail (other than food sales)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shop less than 100m(^2) floor area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shop over 100m(^2) floor area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Showrooms</td>
<td>40L/100m(^2)/floor area/day</td>
<td>10L/100m(^2)/floor area/day</td>
</tr>
</tbody>
</table>

CODE FOR THE STORAGE &
TRANSPORTATION OF
CONTAMINATED/INFECTIOUS WASTE

Special conditions applicable to the storage and transportation of trade waste being contaminated wastes generated in hospitals, nursing homes, pathology laboratories, veterinary premises and other health care facilities.

Definition of Contaminated Waste

Contaminated waste is waste which has the potential to cause injury, infection or offence. Sources include medical, nursing, dental, veterinary, pharmaceutical and similar facilities engaged in treatment, investigation, teaching or research. Contaminated waste shall include:

- **Contaminated Sharps:** any object capable of inflicting penetrating injury that has been contaminated with blood/body fluids, e.g. used needles, needle/syringe combinations and any other sharp objects or instruments capable of inflicting penetrating injury.

- **Bulk body fluids, blood and blood products:** including vessels, bags and tubing containing body fluids, blood/blood products.

- **Dressings & disposable linen - heavily soiled with blood/body fluid.**

- **Microbiological and pathological waste:** including discarded laboratory specimens, cultures and materials that have contact with such, and biological reagents. (Refer to NSW Health Department Guide-lines, Section 5.7.6 - Pathology Laboratories).

- **Tissue:** human tissue, organs, body parts, human foetuses, placentas and products of autopsy and animal tissue.

- **Other material:** which may be determined by the institution's Infection Control Officer/ Committee to present a significant risk of infection.

**NOTE**

- **Bulk body fluids:** should be drained into the sewage system provided that such disposal complies with the requirements of regulatory authorities and the procedure is carried out in a manner to exclude splashing to mucosa or non-intact skin.
15.2 Storage Conditions

(a) The occupier shall ensure, that where sanitary napkins/incontinence pads are generated in bulk, these wastes are handled, stored and disposed of as contaminated waste.

(b) The occupier shall use standard yellow colour coded plastic bags labelled "Contaminated Wastes" for the storage of contaminated wastes.

(c) The occupier shall segregate "sharps" by the use of enclosed rigid impenetrable containers, which comply with AS 4031-1992 before disposal in contaminated waste bags.

(d) The occupier shall ensure that the bagged contaminated wastes, as required by Conditions No. 1 and No. 2, are placed in rigid containers. These containers shall be thoroughly cleansed prior to use and be leak proof, shock proof and have securely fitting lids.

(e) The occupier shall ensure that contaminated wastes are stored or contained in a weather-proof secure location acceptable to the EPA isolated from any other wastes, and shall also ensure that the storage area is maintained in a condition which presents no threat to the environment.

(f) Lids shall be securely fitted to the containers by means of a catch or similar device to ensure that the wastes are prevented from spilling at all times.

(g) The occupier shall ensure that containers used for the storage of contaminated wastes are clearly marked with the wording "Contaminated Wastes". Where second-hand containers are used all other irrelevant markings shall be obliterated.

(h) The occupier shall ensure that no radioactive substance as defined by the Radioactive Substance Act, 1957, is mixed or stored with any of the contaminated wastes.

(i) The occupier shall record the collection dates and names of transporters in respect of the contaminated wastes. The information shall be retained for a minimum period of 12 months.

(j) The occupier shall ensure that the storage area for contaminated wastes contains all necessary equipment required to clean and disinfect the area in case of accidental spillage.

(k) The occupier shall ensure that all contaminated wastes generated on the premises are disposed of at a facility approved by the EPA.
TRANSPORTATION OF CONTAMINATED/INFECTIOUS WASTES

Transportation Conditions

(a) The transporter shall ensure, that when sanitary napkins/incontinence pads are transported in bulk, these wastes are transported as contaminated waste.

(b) Contaminated wastes shall be transported in rigid containers which have been thoroughly cleansed prior to use and which are leak proof, shock proof and have securely fitting lids.

(c) Lids shall be securely fitted to the containers by means of a catch or similar device to ensure that the wastes are prevented from spilling at all times.

(d) Containers which are to be re-used shall, in addition to complying with Condition No. 2 above, be thoroughly cleansed and disinfected with hospital strength disinfectant before re-use.

(e) The transporter shall ensure that containers used for the transportation of contaminated wastes shall be clearly marked with the wording "Contaminated Wastes". Where second-hand containers are used all other irrelevant markings shall be obliterated.

(f) Contaminated wastes shall be transported only in non-compaction vehicles.

(g) Contaminated wastes shall be transported in vehicles dedicated exclusively to that purpose.

(h) During transportation, containers holding the contaminated wastes shall be securely held inside the vehicle to prevent movement of the containers.

(i) The bodies of vehicles used for the transportation of contaminated wastes shall be totally enclosed, separated from the driving cabin, and of a strong weather-proof construction acceptable to the Authority.

(j) The transporter shall ensure that vehicles being used for the transportation of contaminated wastes shall be securely locked when left unattended.

(k) The transporter shall ensure that vehicles containing contaminated wastes are parked in a secure area overnight.

(l) Contaminated wastes should not be stored in vehicles over the weekend. Where circumstances beyond the control of the transporter require this to occur, the vehicle must be parked in a secure area under cover.

(m) On arrival at the contaminated waste disposal depot, the transporter shall notify the depot of the nature of the contaminated wastes.

(n) The transporter shall ensure that contaminated wastes are transported to and disposed of at a facility approved by the Authority.
(o) The transporter of contaminated wastes shall maintain a daily record of the names and addresses of the generators from which the contaminated waste was collected and the names and addresses of the depots approved by the Authority at which the wastes were disposed of. This record shall be available for inspection on request by Authority officers and shall be retained for a minimum period of 12 months.
DEFINITIONS & ABBREVIATIONS

DEFINITIONS

For the purposes of this DCP, unless the context otherwise indicates, the following words have the meaning specified.

Access for Garbage Collection Vehicles – means vehicular access designed to enable ease of forward ingress and egress to internal collection points within a development for Council's specified garbage collection vehicles.

Access for Vehicles to and on Construction Site – Vehicular access to the site and on-site for contractors to deliver building materials or remove reusable, recyclable or disposable materials / wastes efficiently.

Approved - means approved by Council or an authorised officer of the Council.

Authorised Officer - means an officer authorised by the General Manager or Council.

Class - means the classification of a building as determined by the Building Code of Australia.

Collection Area - means the location where garbage, compostible material or recyclable materials is transferred from a buildings storage area to a collection vehicle for removal from the site.

Collection Point - means the usual (or agreed) point on the footpath, roadway, or on-site, where garbage and recyclables are loaded onto vehicles.

Commercial and Industrial Development - means a Class 5, 6, 7, 8, 9a or 9b building under the BCA, including: shops; offices; restaurants; industry; health care; and assembly buildings.

Compactor / Waste Reduction Equipment - means a device which reduces the volume of material, and includes shredding, pulverising and compressing devices.

Compactor Room - means the room where the compactor is loaded with waste.

Compost - means vegetative material capable of being converted to humus by a biological decay process.

Composting Area – means a designated area/s (detailed in landscape plan) for the conversion of vegetative material to humus by biological decay process.

Container Room - means the room where the container is located and may be the same room as the garbage room.

Contaminated Waste - means waste which has the potential to cause injury, infection or offence. Sources include medical, nursing, dental, veterinary, pharmaceutical and similar facilities engaged in treatment, investigation, teaching or research. Contaminated waste includes contaminated sharps, bulk body fluids, blood and blood products, dressings and disposable linen - heavily soiled with blood/body fluid microbiological and pathological waste and tissue.

Coved - means a concave curve of not less than 25mm radius in the angles formed by the intersection of the floor with walls and plinths.
Dwelling - means a room or a number of rooms occupied or used, or so constructed or adapted as to be capable of being occupied or used as a separate domicile.

Dwelling House - means a Class 1a building located within Residential A, AA, AM, AS, AT and Special Uses A and B zones under the Hornsby Shire Local Environmental Plan 1994 and where the “Dwelling House Development Control Plan” is applicable.

Ecologically Sustainable Development - is development that uses conserves and enhances the community’s resources so that ecological processes on which life depends, are maintained and the total quality of life now and in the future can be increased (source National Strategy for Ecologically Sustainable Development).

Food Waste Disposal Unit – an incinerator unit or the like designed to reduce the volume and prepare food scraps for composting.

Garbage - means refuse or waste material other than trade waste, effluent, compostible material, green waste or recyclable material.

Garbage Chute - means a duct in which deposited material descends from one level to another with a building, due to gravity.

Garbage Chute Branch - means that part of the chute system between the loading hopper and the main vertical chute.

Garbage Chute System - means all the components to make a garbage chute operative and includes the garbage chute, loading hoppers, the canopy, service openings and service compartments.

Garbage and Recycling Room - means a room where garbage and recycling receptacles are stored awaiting reuse or removal from the premises.

Green Waste - means garden refuse.

Hazardous Waste - has the meaning specified in the Waste Minimisation and Management Regulation 1996 and includes dangerous goods, poison, liquids and other waste containing hazardous components. If in doubt contact the NSW Environment Protection Authority or Council.

High Density Multi-Unit Housing – means a Class 2 building under the BCA located within the Residential D zone under the Hornsby Shire Local Environmental Plan 1994 and where the “High Density Multi-Unit Housing Development Control Plan” is applicable. High Density Multi-Unit Housing usually takes the form of a multi-storey apartment building.

Impervious - means impermeable to water, moisture and grease.

Loading Hopper - means a device for receiving garbage and discharging it into a chute.

Low Density Multi-Unit Housing - means a Class 1a building under the BCA located within Residential A, AA, AM, AS, AT and Special Uses A and B zones under the Hornsby Shire Local Environmental Plan 1994 and where the “Low Density Multi-Unit Housing Development Control Plan” is applicable. Low Density Multi-Unit Housing usually takes the form of detached or semi-detached dwelling-houses.

Medium Density Multi-Unit Housing - means a Class 1a building under the BCA located within a Residential B zone under the Hornsby Shire Council Local Environmental Plan 1994 and where the “Medium Density Multi-Unit Housing Development Control Plan” is applicable. Medium Density Multi-Unit Housing usually takes the form of villa homes and townhouses.

Medium/High Density Multi-Unit Housing – means a Class 2 building under the BCA located within the Residential C zone under the Hornsby Shire Local Environmental Plan 1994 and where the
“Medium/High Density Multi-Unit Housing Development Control Plan” is applicable. Medium/High Density Multi-Unit Housing usually takes the form of three storey walk up flats.

On-going Waste Management – Legal waste management arrangement contained within the Strata or Community Management Plan to ensure reusable, recyclable, compostable and disposable wastes are managed appropriately to minimise waste and ensure the health and amenity of fellow occupants.

On-site Sorting and Storage – The location of on site storage space for building materials (for reuse) and containers for recycling and disposal.

Putrescible Waste - means food or animal matter (including dead animal parts) or unstable or untreated biosolids Development Control Plan” is applicable.

Receptacle - means approved type of containers, bins or other devices designed and used for the reception and storage of garbage and recycling.

Recyclable - means capable of being reprocessed into useable material and includes any item collected by Council’s Recycling Service.

Refrigerated Garbage Room - means a garbage room which is refrigerated by a cooling system.

Required - means required by Council or any other Statutory authority.

Residential Accommodation - means a Class 1b, 3 or 4 building under the BCA, including: boarding houses; guest houses; hostels; lodging houses; and backpackers accommodation.

Service Compartment - means a compartment or separate room which gives access to the loading hopper and service opening.

Service Opening - means an opening provided in a wall of a service compartment in which the loading hopper is fitted.

Storey - means habitable or occupied space within a building between one floor level and the next floor level above or if there is no floor above, the roof.

Sustainable Waste Management - involves managing and controlling the generation of waste so that the needs of the current generation are met without limiting the options and capacity of future generations to meet their own needs.

Trade Waste - means refuse or waste material arising from any trade or industry but excludes liquid waste, demolition waste, building waste, contaminated waste, green waste or recyclable waste.

Waste - means:
(a) any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or
(b) any discarded, rejected, unwanted, surplus or abandoned substance, or
(c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, reprocessing, recovery or purification by a separate operation from that which produced the substance, or
(d) any substance prescribed to be waste by the Waste Avoidance and Resource Recovery Act 2002 or regulations/strategies prepared under the Act.

Waste Cupboard Space - means an appropriate space within the dwelling/building (usually located in the kitchen) for temporary storage of at least 1 days waste (including recyclables, compostible material and garbage.
Waste Management Plan – A proforma checklist that provides Council with details of the following:

- The volume and type of waste to be generated;
- Whether the waste will be re-used, recycled or disposed of;
- Building materials and design techniques used; and
- How ongoing waste management will operate.

Waste Storage and Recycling Area/Facility - means a designated area/facility or combination of areas/facilities upon the site of a building for the housing of approved containers to store all waste material including recyclable material) likely to be generated by the building’s occupants.
### LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>BCA</td>
<td>Building Code of Australia</td>
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<tr>
<td>DA</td>
<td>Development Application</td>
</tr>
<tr>
<td>DCP</td>
<td>Development Control Plan</td>
</tr>
<tr>
<td>EP&amp;A Act</td>
<td>Environmental Planning and Assessment Act 1979</td>
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<tr>
<td>EPA</td>
<td>NSW Environment Protection Authority</td>
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<tr>
<td>LAP</td>
<td>Local Approvals Policy</td>
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<tr>
<td>LG ACT</td>
<td>Local Government Act, 1993</td>
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<tr>
<td>LG Regs</td>
<td>Local Government (Approvals) Regulations, 1993</td>
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REFERENCES

PUBLICATIONS


Resource NSW (February, 2002) Better Practice Guide for Waste Management in Multi-Unit Dwellings

WEBSITES

Resource NSW: www.resource.nsw.gov.au

NSW Environment Protection Authority: www.epa.nsw.gov.au


Sustainable Energy Development Authority: www.seda.nsw.gov.au

Environment Australia: www.ea.gov.au

Australian Greenhouse Office: www.greenhouse.gov.au

OnSite: onsite.rmit.edu.au

Building Designers Association Website: www.bdansw.com.au

Housing Industry Association: www.hia.asn.au

PRISM: www.wrf.org.uk