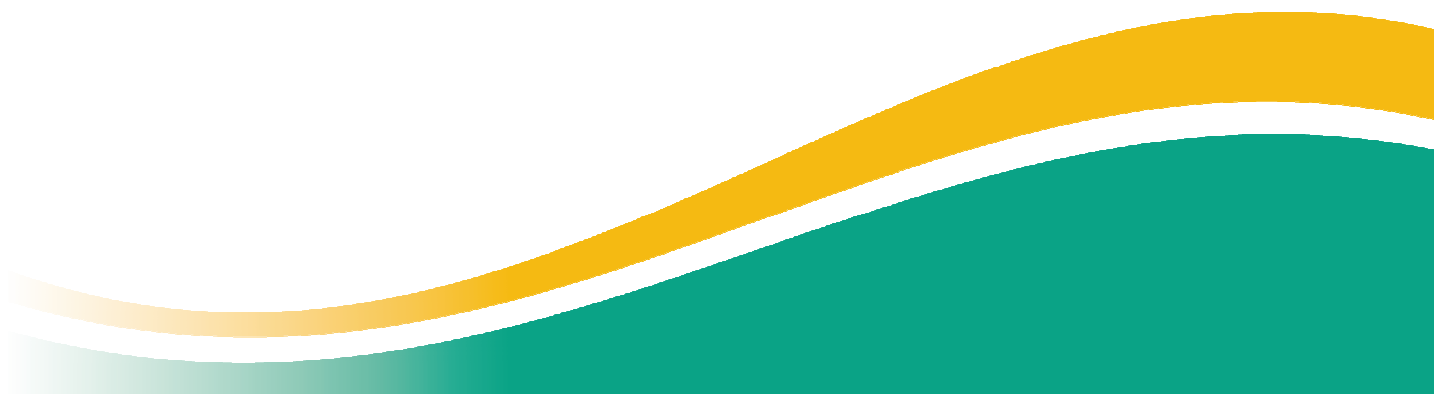




Rockdale Technical Specification **Waste Minimisation and Management**

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Contents

1. Preliminary	1
1.1 Introduction.....	1
1.2 Objectives	1
1.3 Site Waste Minimisation and Management Plan	2
2. Demolition and Construction	3
3. Waste Management Facilities	5
3.1 Low to Medium Density Residential	5
3.2 Residential flat buildings.....	6
3.3 Commercial, Mixed Use and Industrial Developments	8
 Appendix A: Site Waste Minimisation and Management Plan Template.....	12
Appendix B: Waste/Recycling Generation Rates	19
Appendix C: Bin Dimensions	20
Appendix D: Garbage Truck Dimensions for Residential Waste Collection.....	21
Appendix E: Garbage Chutes	22
Appendix F: Placing a Waste Storage Container in a Public Place.....	24

I. Preliminary

I.1 Introduction

Sustainable resource management and waste minimisation is a priority action area in the City of Rockdale. The building and construction industry in particular is a major contributor to waste, much of which is deposited in landfill. This document is aiming to provide effective waste minimisation strategies to reduce the waste volumes from developments.

This document has also been developed to assist in better design and operation of ongoing waste management which is practical, convenient and of minimal adverse impacts on the public domain and residential amenity.

This Technical Specification – Waste Minimisation and Management must be read in conjunction with Rockdale Development Control Plan (DCP) 2011 and any environmental planning instruments that apply to the land.

I.2 Objectives

The objectives in pursuit of sustainable waste management include:

Waste minimisation

- To minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.
- To minimise demolition waste by promoting adaptability in building design and focusing upon end of life deconstruction.
- To encourage building designs, construction and demolition techniques in general which minimise waste generation.
- To maximise reuse and recycling of household waste and industrial/commercial waste.

Waste management

- To assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan.
- To assist applicants to develop systems for waste management that ensure waste is transported and disposed of in a lawful manner.
- To provide guidance in regards to space, storage, amenity and management of waste management facilities.
- To ensure waste management systems are compatible with collection services.
- To minimise risks and impacts on public domain and residential amenity associated with waste management at all stages of development.

1.3 Site Waste Minimisation and Management Plan

A Site Waste Minimisation and Management Plan (SWMMP) outlines measures to minimise and manage waste generated during:

- demolition
- construction
- ongoing use of the site/premises.

In doing so, the SWMMP nominates:

- volume and type of waste and recyclables to be generated
- storage and treatment of waste and recyclables on site
- disposal of residual waste and recyclables
- operational procedures for ongoing waste management once the development is complete.

The SWMMP highlights the method of recycling or disposal and the waste management service provider.

A SWMMP which addresses the requirements of this Technical Specification must be submitted for **all types of development application (DA) that relates waste generation and management**, including demolition, construction and ongoing use of the site/premises.

In addition to submission of a SWMMP as part of the Statement of Environmental Effects (SEE), the waste management facilities proposed as part of the development must be clearly illustrated on the plans of the proposed development, accompanying the DA.

Appendix A provides a template for the compilation of a SWMMP.

Exempt and Complying developments

A SWMMP is also required for development identified as Complying Development. Site waste minimisation and management must be carried out in accordance with an approved SWMMP, and dockets retained on site to show where any construction and or demolition waste has been transported.

A SWMMP is not required in association with Exempt Development. However, a person carrying out exempt development should seek to minimise the generation of waste in the construction and operation of any such use or activity and deal with any waste generated in accordance with the objectives herein.

Consultation

Persons are advised to consult with Council's Waste Services Unit prior to the lodgement of DAs.

In the case of a large complex development it is advisable to arrange an appointment with Council's City Development Department and Waste Services Unit to discuss the details for appropriate waste management.

2. Demolition and Construction

Explanation

The demolition stage provides good scope for waste minimisation. Proponents are actively encouraged to consider possible adaptive reuse opportunities of existing buildings/structures, reuse of materials or parts thereof. Attention to design, estimating of materials and waste sensitive construction techniques and management practices can achieve significant rewards in managing waste.

Design that reduces excessive excavation should be encouraged. With careful on-site sorting and storage, it is possible to reuse many materials, either on or off site.

There are many opportunities for the minimisation of the volume of waste generated and maximising resource recovery from building sites land use activities. The following principles of the Waste Avoidance Hierarchy should be adopted:

- **Avoidance** - avoid generating excess waste or producing unwanted materials on site. Try to avoid excessive packaging by purchasing materials carefully;
- **Reducing** – attempt to reduce waste generation by using materials that can be delivered in returnable packaging, eg return timber pallets for reuse;
- **Reuse** – the reuse of building materials should be encouraged but only in accordance with the relative standards (eg, BCA requirements); and,
- **Recycling** – this may involve separating materials.

Requirements

1. Facilitate reuse/recycling by using the process of “deconstruction”, where various materials are carefully dismantled and sorted.
2. Reuse or recycle salvaged materials onsite where possible.
3. Separate collection bins or areas for the storage of residual waste must be provided.
4. Where allocating an area for the storage of materials for use, recycling and disposal, consideration must be given to slope, drainage, location of waterways, stormwater outlets, vegetation, weather protection, and access/handling requirements.
5. Implement measures to prevent damage by the elements, odour and health risks, and windborne litter.
6. Footpaths, public reserves, street gutters must not be used as places to store demolition waste or materials of any kind without Council approval.
7. Should the developer intend to use a ‘Waste Skip Bin’ of any size, design or type and application to locate and store the Bin must be made to Council prior to the commencement of any work. The location of the Bin and method of collecting and transporting the waste contained therein must be in accordance with Council’s policy ‘Placing a Waste Storage Container in a Public Place’ (refer to **Appendix F**).

8. Waste is only transported to a place that can lawfully be used as a waste facility. Any material moved offsite is transported in accordance with the Protection of the Environment Operations Act (1997).
9. Generation, storage, treatment and disposal of hazardous waste and special waste (including asbestos) is conducted in accordance with relevant waste legislation administered by the EPA and relevant Occupational Health and Safety legislation administered by WorkCover NSW.
10. Evidence is provided of where the waste/recycling materials were disposed of, e.g. landfill and/or recycling dockets.

Further information

To assist in the preparation of your SWMMP, some examples of the reuse and recycling potential of resources and materials are provided in the following Table.

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

Table 1: *Examples of demolition materials and potential reuse/recycling opportunities (based on the Combined Sydney Regional Organisation of Councils Model DCP 1997)*

The Department of Environment, Climate Change and Water website on: www.environment.nsw.gov.au provides a comprehensive list of companies and operators which recycle and reuse waste materials generated through demolition and construction activities.

3. Waste Management Facilities

For all development categories, the on-going management of waste must be considered. This is not only a waste reduction initiative, but also a design measure ensuring that the management and collection of waste and recyclables is user friendly for all stakeholders (ie, building occupants, neighbours, waste contractors, and other service providers).

The provision of these Waste Management Facilities aims to facilitate and enhance the quality of the development as well as addressing every activity and function associated with on-site waste management. Resources such as the *Better Practice Guide for Waste Management in Multi-Unit Dwellings* published by DECCW should be used to inform design of multi-unit dwellings, such as villas and townhouses, residential flat buildings and mixed use development.

3.1 Low to Medium Density Residential

Explanation

This section applies to low to medium density residential developments including single dwellings, dual occupancies, villas and townhouse residential development.

The design of waste and recyclables storage areas within the dwelling and property affect ease of use, amenity and the movement and handling of waste for the life of the development. Multiple households within the property increase challenges with regard to waste volumes, ease of access and operation of waste sorting and removal systems.

Requirements

1. Each dwelling must be provided with sufficient on-site space to store Council's garbage & organics recovery bin and recycling bins (refer to **Appendix C** for bin dimensions). All single dwellings, dual occupancies, villas and townhouses are provided with the following bins per dwelling:
 - One 240 litre Mobile Garbage Bin (MGB) red-lid garbage bin, collected weekly
 - One 240 litre MGB yellow-lid recycling bin, collected fortnightly.
2. The location of the on-site bin storage areas must be located so as to avoid vandalism and adverse impact on the visual amenity of the area and should preferably be located in the rear yard of the premises.
3. The on-site bin storage areas and any composting areas must also be designed to minimise the impact upon neighbouring properties, for example impacts from odour or vermin.
4. Each dwelling is required to have a clearly identified collection point, usually the kerb adjacent to the site, for the collection and emptying of Council's garbage & organics recovery bin and recycling bins. The placement of bins for collection must ensure adequate traffic and pedestrian safety is maintained.
5. The waste storage area is to be easily accessible and have unobstructed access to bins collection point.
6. For villas and townhouses, where the size, shape and, or design of the overall development is such that it may be impractical or unfeasible to adequately store the

required number of bins on the premises, alternative measures will need to be provided. In some cases a reduced number of bins may be the only alternative, and as such residents may be required to share bins.

7. Residents are responsible for ensuring that their bins are presented to the kerb each week for collection by Council's contractor on the evening prior to collection day. All dwellings will be provided with a collection calendar from Council upon request. Bins are to be removed from the kerb as soon as possible on the day of collection.

3.2 Residential flat buildings

Explanation

This section applies to residential flat buildings and residential components of a mixed use development.

The aim of following requirements is to encourage source separation of waste, reuse and recycling by ensuring appropriate storage and collection facilities, and encourage quality design of waste facility that is practical, convenient and of minimal adverse impacts on the public domain and residential amenity.

Requirements

1. Development must include a communal waste/recycling storage room (or rooms) with sufficient on-site space to store and maneuver Council's garbage and recycling bins (refer to **Appendix C** for bin dimensions).

To minimise the number of bins required to be stored and presented for collection, some large high-rise developments may be required to share 1100L bulk bins for garbage and have their garbage bins serviced three times weekly and their recycling bins twice weekly.

Otherwise, each building complex is provided with the following bins:

- One 240L red-lid garbage bin every FOUR dwellings, collected twice weekly
- One 240L yellow-lid recycling bin every FOUR dwellings, collected weekly

2. Waste/recycling storage room (or rooms) must be designed in accordance with the *Better Practice Guide for Waste Management in Multi-Unit Dwellings* published by DECCW, and must be constructed in accordance with the requirements of the *Building Code of Australia* (BCA).
3. Generally, waste/recycling storage areas are to be located near the front boundary of the property, level with and adjacent to driveways providing that the adverse impacts on streetscape is minimal.
4. For large scale developments, the design and location of waste storage areas/facilities must be such that they are integrated into the design of the overall development and compliment the design of both the development and the surrounding streetscape. Such rooms should be located behind the front building line, and wherever possible, be in a basement location within the main building envelope (rather than a separate stand-alone structure). Materials and finishes visible from outside should be similar in style and quality to the external materials used in the rest of the development.

5. The design and location of waste storage areas/facilities must be such that they have minimal negative impacts on residential amenity of any dwellings on the site and neighbouring properties with respect to noise and odours.
6. Waste management systems must be designed to maximise source separation and recovery of recyclables. Systems must be operated to prevent the potential risk or injury or illness associated with the collection, storage and disposal of wastes.
7. A dedicated room or caged area should be provided for the temporary storage of discarded bulk items which are awaiting removal. The storage area must be readily accessible to all residents and must be located close to the main waste storage room or area.
8. Developments containing four or more storeys should be provided with a suitable system for the transportation of waste and recyclables from each storey to waste storage/collection areas.
9. Garbage chutes must be designed in accordance with **Appendix E** Garbage Chutes, the BCA and *Better Practice Guide for Waste Management in Multi-Unit Dwellings*. Garbage chutes are not suitable for recyclable materials and must be clearly labelled to discourage improper use. Alternative interim disposal facilities for recyclables should be provided at each point of access to the garbage chute system.
10. Each service room and storage area must be located for convenient access by users and must be well ventilated and well lit.
11. Where site characteristics, number of bins and length of street frontage allow, bins may be collected from a kerbside location. All bins will be taken to the kerb by Council's Waste Contractor or Building Manager of the development, provided that waste/recycling storage areas are easily accessible and located within 20m of the front boundary, they are returned to the bin area by the Contractor following collection.
12. If it is impractical to locate waste/recycling storage areas in an easily accessible location and within 20m of the front boundary of the property, the bins will not be presented to the kerb by Council's Waste Contractor; and it must be the responsibility of the Owners Corporation to do so.
13. In instances where kerbside bin collection is not appropriate, bins must be collected onsite. Bins that are collected onsite are to be collected either from their usual storage point or from an onsite temporary holding area located inside the property and within 20m of the front boundary boundary and close to a property entrance.
14. Where bins cannot be collected from a kerbside location or from a temporary holding area located immediately inside the property boundary, the development must be designed to allow for on-site access by garbage collection vehicles (of dimensions detailed at **Appendix D** Garbage Truck Dimensions for Residential Waste Collection).

In these instances, the site must be configured so as to allow collection vehicles to enter and exit the site in a forward direction and so that collection vehicles do not impede general access to, from or within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles.

Note: As a minimum requirement for collection vehicle access, Council will require indemnity against claims for loss or damage to the pavement or other driving surface. Council may also require indemnity against liabilities, losses, damages and any other demands arising from any on-site collection service. In all cases, a hazard assessment will need to be conducted prior to Council agreeing to undertake the service.

15. Should a collection vehicle be required to enter a property, access driveways and internal roads must be designed in accordance with Australian Standard 2890.2 Parking Facilities – Off-Street Commercial Vehicle Facilities – 2002.
16. The gradient of waste/recycling storage room floors and the gradient of any associated access ramps must be sufficiently level so that access for the purpose of emptying containers can occur in accordance with WorkCover NSW Occupational Health and Safety requirements.
17. If Council waste collectors and/or waste collection vehicles are required to enter a site for the purpose of emptying bins, then site specific arrangements must be in place.
18. If bins need to be moved from normal storage areas to a different location for collection purposes, it is the responsibility of agents of the owners' corporation to move the bins to the collection point no earlier than the evening before collection day and to then return the bins to their storage areas no later than the evening of collection day. Bins are to remain in their on-site storage areas at all other times.
19. Access to a cold water supply must be available for the cleaning of bins and the waste storage areas. Storage areas should be constructed and designed to be weather proof and easy to clean, with wastewater discharged to sewer.
20. Agents of the owners' corporation must take responsibility for the management of waste and recyclable materials generated upon the site. Arrangements must be in place in regards to the management, maintenance and cleaning of all waste/recycling management facilities.

3.3 Commercial, Mixed Use and Industrial Developments

Explanation

This section applies to non residential developments such as commercial development, change of use of a business premise, industrial development and commercial components of a mixed use development.

Developments in this section often require the provision of waste management facilities of a unique and specific nature due to the size and design of the development. Council is prepared to adopt a flexible approach and encourage applicants to develop a proposal sufficient to the needs of the building and its current as well as future occupants.

Waste may be collected by Council or nominated waste contractor. Prior to the lodgement of DAs, applicants should contact Council's Waste Services Unit to discuss relevant arrangements.

Requirements

1. Development must include a designated on-site waste/recycling storage area or room(s) designed and constructed in accordance with the requirements of the *Building Code of Australia* (BCA).
2. The waste/recycling storage room/area must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated (at the rate described in **Appendix B** Waste/Recycling Generation Rates) between collections.
3. The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of Council's or the nominated waste contractor.
4. The size and layout of the waste/recycling storage room/area must be capable of accommodating reasonable future changes in use of the development.
5. The development must be designed to allow access by collection vehicles used by the nominated waste contractor. Wherever possible, the site must be configured to allow collection vehicles to enter and exit the site in a forward direction so that collection vehicles do not impede general access to, from and within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles.
6. The gradient of waste/recycling storage area floors and the gradient of any associated access ramps must be sufficiently level so that access for the purpose of emptying containers can occur in accordance with WorkCover NSW Occupational Health and Safety requirements.
7. Servicing arrangements for the emptying of bins must be compatible with the operation of any other loading/unloading facilities on-site.
8. Waste should be separated into at least 4 streams: paper/cardboard, recyclables, general waste and industrial process type wastes, if applicable.
9. Waste/recycling storage areas must be integrated into the design of the overall development. Materials and finishes that are visible from outside should be similar in style and quality to the external materials used in the rest of the development.
10. Waste/recycling storage areas must have a smooth, durable floor and must be enclosed with durable walls/fences that extend to the height of any containers which are kept within.
11. Where possible, waste/recycling containers must be collected from a rear lane access point. Consideration must be given to the time of day at which containers are collected so as to minimise adverse impacts upon pedestrian movements, traffic and residential amenity of any dwellings on the site and neighbouring properties.
12. Mixed use development must observe any requirements at Section 3.2 Residential Flat Building where relevant.
13. Mixed Use development must incorporate separate and self-contained waste management systems, including separate waste/recycling storage rooms/areas, for the residential and the non-residential component. Commercial tenants must be

prevented (via signage and other means), from using the residential waste/recycling bins and vice versa.

14. There must be convenient access from each tenancy to the waste/recycling storage room(s) or area(s). There must be step-free access between the point at which bins are collected/emptied and the waste/recycling storage room(s) or area(s).
15. Depending upon the size and type of the development, it may be necessary to include a separate waste/recycling storage room/area for each tenancy.
16. All commercial tenants must keep written evidence on site of a valid contract with a licensed waste contractor for the regular collection and disposal of the waste and recyclables that are generated on site.
17. Between collection periods, all waste/recyclable materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste/recycling storage room(s) or area(s).
18. Arrangements must be in all parts of the development for the separation of recyclable materials from general waste. Arrangements must be in all parts of the development for the movement of recyclable materials and general waste to the main waste/recycling storage room/area. For multiple storey buildings, this might involve the use of a goods lift.
19. The waste/recycling storage room/area must provide separate containers for the separation of recyclable materials from general waste. Standard and consistent signage on how to use the waste management facilities should be clearly displayed.
20. Waste management facilities must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
21. Premises that discharge trade wastewater must do so only in accordance with a written agreement from the local sewer authority. In the Sydney Metropolitan Area (SMA) this is Sydney Water. Sydney Water defines trade wastewater as “any liquid, and any substance contained in it, which may be produced at the premises in an industrial and commercial activity, but does not include domestic wastewater (e.g. from hand-basins, showers and toilets).”
22. Premises which generate at least 50 litres per day of meat, seafood or poultry waste must have that waste collected on a daily basis or must store that waste in a dedicated and refrigerated waste storage area until collection.
23. Arrangements must be in place regarding the regular maintenance and cleaning of waste management facilities. Tenants and cleaners must be aware of their obligations in regards to these matters.
24. Vermin must be prevented from entering the waste/recycling storage area.
25. Waste/recycling storage areas must be serviced by hot and cold water provided through a centralised mixing valve. The hose cock must be protected from the waste containers and must be located in a position that is easily accessible when the area is filled with waste containers.

26. Any garbage chutes must be designed in accordance with the requirements of **Appendix E** Garbage Chutes, the *Building Code of Australia* and *Better Practice Guide for Waste Management in Multi-Unit Dwellings*. Garbage chutes are not suitable for recyclable materials and must be clearly labelled to discourage improper use.
27. Development that relates to production, storage and disposal of industrial and hazardous wastes as defined by the *Protection of the Environment Operations Act 1997* must comply with relevant laws and protocols and observe the guidelines provided by the Department of Environment, Climate Change and Water (DECCW), website www.environment.nsw.gov.au
28. Doors/gates to waste/recycling storage areas must be durable. There must be a sign adjacent to the door/gate that indicates that the door/gate is to remain closed when not in use. All doors/gates are to be openable from both inside and outside the storage area and must be wide enough to allow for the easy passage of waste/recycling containers. Arrangements must be in place so that the waste/recycling storage area is not accessible to the general public.

Appendix A: Site Waste Minimisation and Management Plan Template

Applicant and Project Details (All Developments)	
Applicant Details	
Application No.	
Name	
Address	
Phone number(s)	
Email	
Project Details	
Address of development	
Existing buildings and other structures currently on the site	
Description of proposed development	
<p><i>This development achieves the waste objectives set out in the DCP and the Technical Specification. The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as council, DECCW or WorkCover NSW.</i></p>	
Name	
Signature	
Date	

Demolition (All Types of Developments)

Address of development: _____

Refer to Section 3.1 of the Technical Specification for objectives regarding demolition waste.

	Reuse	Recycling	Disposal	
Type of waste generated	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	Specify method of on site reuse, contractor and recycling outlet and /or waste depot to be used
Excavation material				
Timber (specify)				
Concrete				
Bricks/pavers				
Tiles				
Metal (specify)				
Glass				
Furniture				
Fixtures and fittings				
Floor coverings				
Packaging (used pallets, pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/cardboard				
Residual waste				
Hazardous/special waste e.g. asbestos (specify)				
Other (specify)				

Construction (All Types of Developments)

Address of development: _____

Refer to Section 3.2 of the Technical Specification for objectives regarding construction

	Reuse	Recycling	Disposal	
Type of waste generated	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	Estimate Volume (m ³) or Weight (t)	Specify method of on site reuse, contractor and recycling outlet and/or waste depot to be used
Excavation material				
Timber (specify)				
Concrete				
Bricks				
Tiles				
Metal (specify)				
Glass				
Plasterboard (offcuts)				
Fixtures and fittings				
Floor coverings				
Packaging (used pallets, pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/cardboard				
Residual waste				
Hazardous/special waste (specify)				

Ongoing Operation (Residential, Multi Unit, Commercial, Mixed Use and Industrial)

Address of development: _____

Show the total volume of waste expected to be generated by the development and the associated waste storage requirements.

	Recyclables		Compostables	Residual Waste*	Other
	Paper/ cardboard	Metals/ plastics/glass			
Amount generated (L per unit per day)					
Amount generated (L per development per week)					
Any reduction due to compacting equipment					
Frequency of collections (per week)					
Number and size of storage bins required					
Floor area required for storage bins (m2)					
Floor area required for manoeuvrability (m2)					
Height required for manoeuvrability (m)					

* Current “non-recyclables” waste generation rates typically include food waste that might be further separated for composting.

Construction Design (All Types of Developments)

Outline how measures for waste avoidance have been incorporated into the design, material purchasing and construction techniques of the development (refer to Section 3.2 of the Technical Specification):

Materials

Lifecycle

Detail the arrangements that would be appropriate for the ongoing use of waste facilities as provided in the development. Identify each stage of waste transfer between residents' units/commercial tenancies and loading into the collection vehicle, detailing the responsibility for and location and frequency of, transfer and collection.

[illegible]

Plans and Drawings (All Developments)

The following checklists are designed to help ensure SWMMPs are accompanied by sufficient information to allow assessment of the application.

Drawings are to be submitted to scale, clearly indicating the location of and provisions for the storage and collection of waste and recyclables during:

- demolition
- construction
- ongoing operation.

Demolition and Construction

Refer to Section 2 of the Technical Specification for specific objectives and measures.
Do the site plans detail/indicate:

	Tick /Yes
Size and location(s) of waste storage area(s)	
Access for waste collection vehicles	
Areas to be excavated	
Types and numbers of storage bins likely to be required	
Location of on-site sorting and storage areas for the reuse and recycling of materials	

Ongoing Operation

Refer to Section 3 of the Technical Specification for specific objectives and measures.
Do the site plans detail/indicate:

	Tick/ Yes/Na
Space	
Size and location(s) of waste storage areas	
Recycling bins placed next to residual waste bins	
Space provided for access to and the manoeuvring of bins/equipment	
Any additional facilities, eg. Garbage chutes or garbage compaction equipments if applicable	

Access	
Access route(s) to deposit waste in storage room/area	
Access route(s) to collect waste from storage room/area	
Bin carting grade	
Location of final collection point	
Clearance, geometric design and strength of internal access driveways and roads	
Direction of traffic flow for internal access driveways and roads	
Amenity	
Aesthetic design of waste storage areas	
Signage – type and location	
Construction details of storage rooms/areas (including floor, walls, doors, ceiling design, sewer connection, lighting, ventilation, security, wash down provisions etc)	

Appendix B: Waste/Recycling Generation Rates

Construction Waste

'Rule of Thumb' for renovations and small home building

- Timber 5-7% of material ordered
- Plasterboard 5-20% of material ordered
- Concrete 3-5% of material ordered
- Bricks 5-10% of material ordered
- Tiles 2-5% of material ordered

Source: *Waste Planning Guide for Development Application, Inner Sydney Waste Board, 1998*

Ongoing Operation

Premises type	Waste generation	Recyclable material generation
Backpackers' Hostel	40L/occupant space/week	20L/occupant space/week
Boarding House, Guest House	60L/occupant space/week	20L/occupant space/week
Food premises: Butcher Delicatessen Fish Shop Greengrocer Restaurant, Café Supermarket Takeaway food shop	80L/100m ² floor area/day 80L/100m ² floor area/day 80L/100m ² floor area/day 240L/100m ² floor area/day 10L/1.5m ² floor area/day 240L/100m ² floor area/day 80L/100m ² floor area/day	Variable Variable Variable 120L/100m ² floor area/day 2L/1.5m ² floor area/day 240L/100m ² floor area/day Variable
Hairdresser, Beauty Salon	60L/100m ² floor area/week	Variable
Hotel, Licensed Club, Motel	5L/bed space/day 50L/100m ² bar area/day 10L/1.5m ² dining area/day	1L/bed space/day 50L/100m ² bar area/day 50L/100m ² dining area/day
Offices	10L/100m ² floor area/day	10L/100m ² floor area/day
Shop less than 100m ² floor area Shop greater than 100m ² floor area	50L/100m ² floor area/day 50L/100m ² floor area/day	25L/100m ² floor area/day 50L/100m ² floor area/day
Showroom	40L/100m ² floor area/day	10L/100m ² floor area/day
Multi-Unit Dwellings ¹	80L/unit/week	40L/unit/week

Sources: Adapted from *Waverley Council Code for the Storage and Handling of Waste*.

¹ Appendix A, *Better Practice Guide For Waste Management In Multi-Unit Dwellings 2007*

Appendix C: Bin Dimensions

Mobile Garbage Bins (MGB's) are generally categorised and sized according to the volume capacity of each bin. The size of the bins that are used in the provision of waste and recycling services in the Rockdale LGA are described in the following Table.

Bin Type & Capacity	Height	Width	Depth
240 Litre MGB	1100mm	580mm	740mm
1100 Litre MGB	1470mm	1370mm	1245mm

Appendix D: Garbage Truck Dimensions for Residential Waste Collection

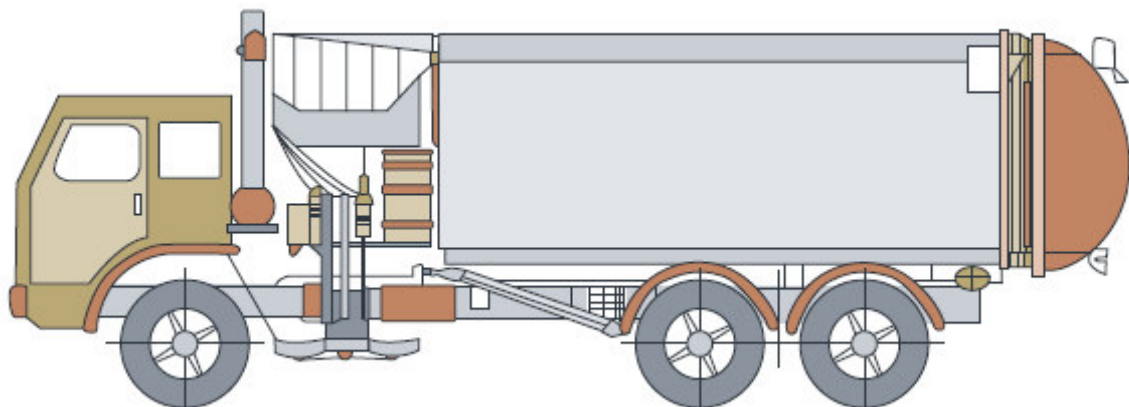
This page includes information regarding the dimensions of garbage trucks that are typically used for the collection of residential waste. Developments that require Council garbage trucks to enter the site for the collection of residential waste must be designed to accommodate on-site truck movement.

Requirements regarding vehicle turning circles and driveway width/gradient are contained in Australian Standard 2890.2 2002/Planning Facilities — off street commercial vehicles.

It is recommended that an applicant speak with Council's Waste Services Coordinator in regards to the design of development proposals that involve garbage trucks entering the site. Services will not be provided where there are undue risks.

Typical Council Garbage Truck used for Domestic Waste Collection

Length overall	9.64m
Front overhang	1.51m
Wheelbase	5.20m
Rear overhang	2.93m
Turning circle kerb to kerb	17.86m
Turning circle wall to wall	20.56m
Front of vehicle to collection arm	3.8m
Maximum reach of side arm	3.0m
Travel height	3.63m
Clearance height for loading	3.9m



Source of diagram: *Better Practice Guide for Waste Management in Multi-Unit Dwellings, DECCW 2008.*

Appendix E: Garbage Chutes

Garbage chute design

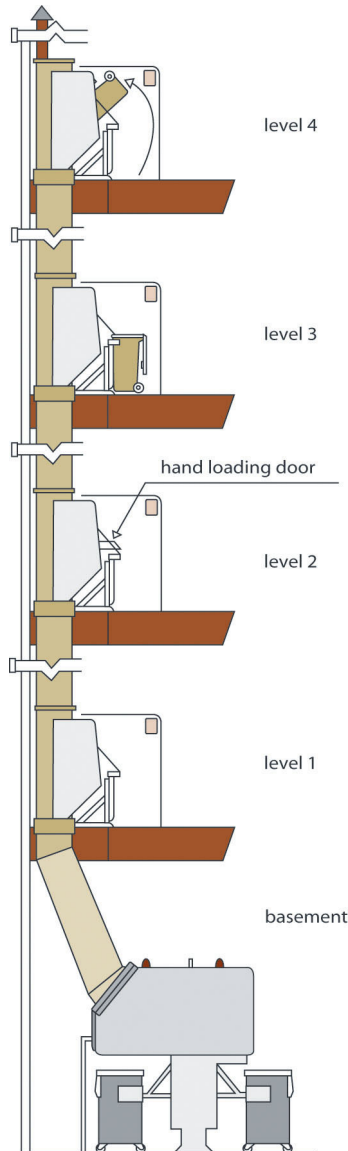
- Garbage chutes must be constructed in accordance with the requirements of the *Building Code of Australia (BCA)*.
- Garbage chutes must be located and insulated in a manner that reduces noise impacts.
- Chutes, service openings and charging devices must be constructed of material (such as metal) that is smooth, durable, impervious, non-corrosive and fire resistant.
- Chutes, service openings and charging devices must be capable of being easily cleaned.
- Chutes must be cylindrical and should have a diameter of at least 500mm.
- There must not be any bends (or sections of reduced diameter) in the main shaft of the chute.
- Internal overlaps in the chute must follow the direction of waste flow.
- Chutes must deposit rubbish directly into a bin or compactor located within a waste/recycling storage room.
- A cut-off device must be located at or near the base of the chute so that the bottom of the chute can be closed when the bin or compacting device at the bottom of the chute is withdrawn or being replaced.
- The upper end of a chute should extend above the roofline of the building.
- The upper end of a chute should be weather protected in a manner that doesn't impede the upward movement of air out of the chute.

Garbage chute service room design

- The service opening (for depositing rubbish into the main chute) on each floor of the building must be located in a dedicated service room.
- The charging device for each service opening must be self-closing and must not project into the main chute.
- Branches connecting service openings to the main chute are to be no more than 1m long.
- Each service room must include containers for the storage of recyclable materials. Signage regarding the materials that can be recycled should be displayed near these containers.
- Each service room must be located for convenient access by users and must be well ventilated and well lit.
- The floors, walls and ceilings of service rooms must be finished with smooth, durable materials that are capable of being easily cleaned.
- Service rooms must include signage that clearly describes the types of materials that can be deposited into the garbage chute and the types of materials which should be deposited into recycling bins.

Management

- Garbage chutes are not to be used for the disposal of recyclable materials. Signage to this effect should be displayed near service openings.
- Arrangements must be in place for the regular maintenance and cleaning of garbage chutes and any associated service rooms, service openings and charging devices.
- Arrangements must be in place for the regular transferral of recyclable materials (which are stored in service rooms) to the main waste/recycling storage room.



Example of a garbage chute system.

Source: *Better Practice Guide for Waste Management in Multi-Unit Dwellings*, DECCW,

Appendix F: Placing a Waste Storage Container in a Public Place

General

Approval is required under the Local Government Act 1993 to place a waste storage container (skip) in a public place, such as on the roadway or on a footpath.

- Where application is required, details can be provided with that application.
- To place a waste storage container in a public place, a permit must be obtained. Council's policy for the Placement of Building Waste Containers, adopted by Council on 24 March 1994, must be complied with.
- To place a waste storage container on a State Road also requires the approval of the RTA. The "Interim Guidelines for the Placement of Building Waste Containers (Skips) 1988, published by the RTA must be complied with.

Intent of Controls

To encourage source separation and ensure that containers are placed in appropriate and safe locations

Performance Criteria

The intent may be achieved where:

- The location of the container does not disturb traffic flow or pedestrian movement; and
- The location of the container does not disturb normal stormwater flow.

Submission Requirement

Your application shall include:

- A plan showing the proposed location of the container if the above criteria are not met; and
- Details of public liability insurance cover

Safety

Matters relating to safety that should be considered are:

- Location should not interfere with sight lines of drivers entering or leaving premises; and
- Skips should:
 - be clearly visible,
 - be located in well lit areas,
 - 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,
 - have flashing yellow lights, if needed or required.

Numbers and Types of Containers

While it is normal practice for single skips to be provided, for large-scale operations where a variety of distinct materials will be stored and transported, consideration should be given to planning the operation so that materials can be handled separately.

This will assist in maximising reuse/recycling and minimising disposal at landfill.

Applicants are also encouraged to source separate materials of value, such as doors and windows. (The list of local outlets as shown in the Attachment should be of assistance).

The size of the container should be appropriate to the nature of waste generated and the location.

In general, the following dimensions are the acceptable ranges:

- Length: 2.0 - 5.5m,
- Width: 1.5 - 2.2m,
- Height 1.0 - 1.5m.

Location of Containers

The following general prohibitions apply. Approval will NOT be given:

- In circumstances where there is sufficient space for placement within the user's premises;
- For skips fronting adjoining properties (without neighbour's approval);
- For placement in on-road locations where parking, stopping and 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 on the departure side of a pedestrian crossing,
 - Within 18 metres of the approach side and 9 metres on the departure side of a children's crossing
 - Within 18 metres of the approach side and 9 metres of the departure side of a bus stop,
 - On a hill or curve where the view is not clear for at least 50 metres,
 - Within 3 metres from any separation lines
 - On a median strip or traffic island.
- For placement in on-road locations where kerb side parking restrictions apply (eg 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 as prohibited by the NSW Waste Service. Contact should be made with the NSW Environment Protection Authority.

In assessing proposed locations, Council is concerned with disturbance to traffic flow and stormwater drainage.

The following locations are not preferred:

- On classified and arterial/sub-arterial roads,
- In narrow streets,
- Where driveways will be blocked,
- Where it would require pedestrians to use the roadway
- Where stormwater drainage will be impeded.

Waste Bin (Skip) Information

Council allows the placement of waste bins or builders' skips on the roadside or nature strip, providing a permit is obtained first. Bins will not be permitted in areas that would be considered dangerous or areas where parking restrictions apply or locations which adversely affect pedestrian movements. Safety is Council's main concern, and bins can only be placed from companies who satisfy Council's requirements for safety and public liability. The approved suppliers are detailed below:

Company	Address	Phone
Dial - a - Dump	54 Drumalbyn Road, BELLEVUE HILL	9327 7777
Dumpers Handybin	29 Dakara Drive, FRENCHES FOREST 2086	9975 2555
Cheap & Quick Waste Bins Pty Ltd.	25-27 Governor Macquarie Drive CHIPPING NORTON 2170	9755 2888
Wheland Kartaway Pty Ltd	38 Rosedale Avenue GREENACRE 2190	9755 2122
Bradshaw Waste Industries Pty Ltd	34 Daisy Street REVESBY 2212	9792 1111
Austwaste Bins	12a Glenfarne Street BEXLEY 2007	9554 8077
AAA Ardvark All Types of Rubbish	21 Gore Street ARNCLIFFE 2205	1800 806 046 0411 565 752

Permits can be obtained from the Customer Service Counter, Ground Floor, Administration Building, 2 Bryant Street, Rockdale during the hours 8:30 am - 4:30 pm Mon-Fri. Phone 9562 1666 for more information.