Central Coast Council
Waste Control Guidelines

Version 01

Central Coast Council June 2022

1. INTRODUCTION

1.1 Objective - Minimise Waste

Waste has become a high profile issue at all levels of government as landfill sites become scarce and the environmental and economic costs of disposal rise.

The solutions to the waste problem have been summarised in what is called the waste management hierarchy and is depicted in Figure 1:

- waste avoidance and reduction;
- re-use;
- recycling;
- recover energy;
- treatment; and
- disposal to landfill (as a last resort).

All waste streams contain many resources that may be useful products for our communities. Recovering, recycling and using these as secondary resources are key elements in working towards Ecologically Sustainable Development.

A large proportion of waste can be reduced with action at its source. A further high percentage can be re-used and recycled if time is taken to source-separate, promote local markets and arrange for transportation.

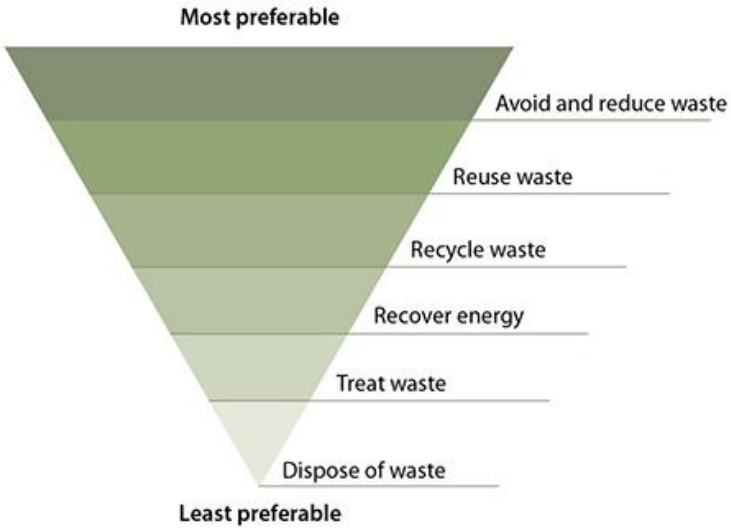

Figure 1: Waste Hierarchy

1.2 Government Responses to Waste Minimisation

1.2.1 NSW Government

The Waste Avoidance and Resource Recovery Act, 2001 (WARR Act) became effective 8 October 2001. The objectives of the WARR Act are to encourage the most efficient use of resources, provide for the continual reduction in waste generation and minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste.

The WARR Act requires the introduction of extended producer responsibility (EPR) provisions and for the NSW Environment Protection Authority (EPA) to develop a waste strategy which is to be based on continuous improvement and benchmarked against international best practice. The NSW Waste Avoidance and Resource Recovery Strategy 2014-2021 (WARR Strategy) includes targets for waste reduction, resource recovery and the diversion of waste from landfill disposal. The WARR Strategy provides a framework for minimising environmental harm from waste management and disposal, reducing waste and maximising conservation of our natural resources.

The WARR Strategy identified waste avoidance and resource recovery goals and targets in six key result areas. The targets for the Key Result Areas are detailed in Table 1 which can be identified as the following goals:

- Avoid and reduce waste generation;
- Increase recycling;
- Divert more waste from landfill
- Manage problem waste better
- Reduce litter; and
- Reduce illegal dumping.

Table 1: Broad Targets for each Key Result area

Key Result Area	Target
Avoid and reduce waste generation	By 2021-22 reduce the rate of waste generation per capita.
Increase recycling	By 2021-22 increase recycling rates for: • Municipal solid waste from 52% (in 2010-11) to 70% • Commercial and industrial Waste from 57% (in 2010-11) to 70% • Construction and demolition waste from 75% (in 2010-11) to 80%
Divert more waste from landfill	By 2021-22 increase the waste diverted from landfill from 63% (in 2010-11) to 75%
Manage problem waste better	By 2021-22 establish or upgrade 86 drop off facilities or services for managing household problem wastes state-wide
Reduce Litter	By 2016-17, reduce the number of litter items by 40% compared with 2011-12 levels and continue to reduce litter items to 2021-22
Reduce illegal dumping	From 2013-14 implement the *NSW Dumping Strategy 2014-16* to reduce the incidence of illegal dumping state-wide. As part of this strategy, by 2016-17: • Reduce the incidence of illegal dumping in Sydney and the Illawarra, Hunter, and Central Coast regions by 30% compared to 2010-11 • Establish baseline data to allow target-setting in other parts of the state.

The *Protection of the Environment Operations (Waste) Regulation 2014* creates an integrated, streamlined system for 'waste tracking'. 'Waste tracking' is used across Australia to minimise the possibility that wastes will be transported or disposed of inappropriately. The new regulations have delivered a clear, practical, and enforceable system to ensure the appropriate transport and disposal of high-risk wastes.

In addition, a major economic instrument to reduce waste in NSW is the Waste Levy. The waste levy is payable on all waste materials disposed of at landfill. The levy has been set at $138.20 per tonne for the 2017/18 financial year and will increase annually for all Metropolitan Levy Areas of which the Central Coast Council Local Government Area (LGA) is defined.

1.2.2 Local Government

Councils have a key dual role to play in waste management. Firstly, as a service provider - arranging for the collection of recyclable materials and waste, and secondly, as a regulator - of building and land use activity.

In this latter role Central Coast Council prepared *Development Control Plan 2018 – Chapter 2.14 Site Waste Management* (DCP) and these Waste Control Guidelines, which promote waste avoidance, reduction, re-use, recycling and (as a last resort) disposal to landfill. Design criteria for collection, storage and recycling areas and facilities are detailed within these Guidelines.

Note:

The New South Wales Department of Planning and Environment is the consent authority for state significant development. Council will liaise with the Department of Planning and Environment to ensure that the interests of the people of Central Coast Council LGA are protected in terms of appropriate waste management for such developments. The minimum requirement sought will be compliance with the provisions of DCP Chapter 2.14, for the preparation and submission of a Waste Management Plan with the application.

The provisions of the DCP apply only to development applications lodged under Part IV of the Environmental Planning and Assessment Act, 1979.

Where development or works proposed by Council are subject to assessment under Part V of the Act, waste management shall be considered integral to the design of the proposal and be documented within the Review of Environmental Factors (REF).

To ensure an orderly development control process, Council is committed to the regular review of the performance of the DCP and these associated Guidelines, and to their amendment if required. A systematic review of the document will be undertaken on a five-yearly basis.

1.3 Purpose of these Guidelines

These guidelines aim to facilitate sustainable waste management within the Central Coast Council LGA, in a manner consistent with the principles of Ecologically Sustainable Development (ESD).

These guidelines have been prepared to assist applicants to prepare Waste Management Plans that comply with the requirements listed above.

These guidelines will also provide advice to applicants on how to avoid and minimise waste and how to improve existing facilities.

These guidelines will also set submission requirements and standards in relation to waste for subdivision, demolition, site preparation, construction and ongoing use of premises.

1.4 Key Features

These guidelines have four key features:

i. The provision of advice regarding the preparation of a waste management plan by applicants seeking development approval for subdivisions and demolition and construction of any

building. The applicant is required to specify waste and recyclable materials generated by type and volume, and to nominate re-use and recycling potential for each waste type;

ii. The provision of general advice for all applicants on matters such as source separation, subdivisions, demolition, construction, design and location of waste storage and recycling facilities;

iii. The provision of specific advice for particular uses and activities such as multi-unit dwellings, shops, offices, restaurants clubs/hotels, hospitals and industry; and

iv. The provision of detailed appendices providing advice on calculating waste generation rates, identifying hazardous waste, facility design, Council bin sizes and servicing requirements, and the preferred location and design of waste storage and handling facilities. A list of recycling contacts is provided on www.businessrecycling.com.au.

1.5 Glossary of Terms

For the purposes of these Guidelines the following terms have the meaning specified:

Class means the classification of a building as determined by the Building Code of Australia.

Clinical and related waste means:

1. clinical waste, or
2. cytotoxic waste, or
3. pharmaceutical, drug or medicine waste, or
4. sharps waste

***Clinical* waste** means any waste resulting from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity, being waste that has the potential to cause injury, infection or offence, and includes waste containing human tissue (other than hair, teeth and nails), bulk body fluids or blood, visibly blood-stained body fluids, materials or equipment, laboratory specimens or cultures, animal tissue, carcasses or other waste from animals used for medical research. It does not include any such waste that has been treated by a method approved in writing by the Director-General of the Department of Health.

Collection Point means the usual (or agreed) point of the footpath/roadway, or on-site, where the contents of bins are loaded onto vehicles.

Collection Area means the location where waste or recycling is transferred from a building's storage containers to a collection vehicle for removal from the site. Collection Areas are generally only found in multi-unit developments.

Compostable material means vegetative material capable of being converted to humus or compost by a biological decay process.

Dwelling means a room or number of rooms occupied or used, or so constructed or adapted, as to be capable of being occupied or used, as a separate domicile.

Ecologically Sustainable Development has the definition as contained in S.6 (2) of the Protection of the Environment Administration Act, 1991. It involves the effective integration of social, economic and environmental considerations in decision-making processes through the application of concepts such as the precautionary principle, intergenerational equity, conservation of biological diversity and ecological integrity, and improved valuation, pricing and incentive mechanisms.

Garbage and recycling room means a room where waste and recycling receptacles are stored, awaiting removal from the premises.

Garbage chute means a duct in which deposited material descends from one level to another within the building due to gravity.

Garden organics means vegetative matter including trees, branches, shrubs, cuttings, lawn clippings

and untreated timber and wood products.

Guidelines means this document.

Hazardous waste means any waste as defined as hazardous waste in accordance with Schedule 1, Part 3 of the *Protection of the Environment Operations Act 1997*. Hazardous Materials cannot be placed in standard waste and recycling bins and include waste items such as lead paint, coal tar, dangerous goods containers that have not been cleaned out or waste with a ph less than 2.0 or greater than 12.5.

Recyclable means capable of being reprocessed into usable material.

Sharp Waste means any waste collected from designated sharps waste containers used in the course of business, commercial or community service activities, being waste resulting from the use of sharps for human health care by health professionals and other health care providers, medical research or work on cadavers, veterinary care or veterinary research, skin penetration or the injection of drugs or other substances for medical or non-medical reasons. It does not include waste that has been treated on the site where it was generated to an approved standard

Storey means a habitable or occupied space within a building between one floor level and the next floor level above, or if there is no floor level above, the roof.

Trade waste means liquid waste arising from a commercial / industrial enterprise.

Volume reduction equipment means devices, which reduce the volume of waste or recyclable material including compressing devices such as compactors and bailers, and shredding, pulverising or crushing devices.

Waste means:

- Any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, consistency or manner, so as to cause an alteration in the environment, or;
- Any discarded, rejected, unwanted, surplus or abandoned substance, or
- 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
- Any substance prescribed by regulation to be waste for the purpose of the Protection of the Environment Operations Act, 1997.

A substance is not precluded from not being waste for the purpose of the Protection of the Environment Operations Act, 1997 merely because it can be reprocessed, re-used or recycled.

Waste management plan means the completed waste plan in accordance with Appendix 1. The plan shall identify the volume and type of waste and recyclable material expected to be generated, stored and treated on site, and how the residual is to be disposed of during site development, construction and habitation. Information must also include location and design of waste storage and recycling areas.

Waste storage and recycling area means a designated area or a combination of designated areas within the boundary of a site for the storage waste and recycling bins. Waste storage areas maybe covered but are not a designated room within a building. Waste storage and recycling areas are generally found in multi-unit developments.

LIST OF ABBREVIATIONS

BCA	***Building Code of Australia***
DA	***Development Application***
DCP	***Development Control Plan***
EPA	***Environmental Protection Authority***
MGB	***Mobile Garbage Bin***
ESD	***Ecologically Sustainable Development***
LGA	***Local Government Area***

2. WASTE MANAGEMENT PLANS

2.1 What is a Waste Management Plan?

A Waste Management Plan is a plan prepared in conjunction with a development application for demolition and Construction Certificate application for a building to ensure that waste issues have been considered in the planning and design stage of the proposal and that appropriate measures will be put in place to minimise the generation of waste during the demolition and construction stage as well as during the on- going use of the development. Waste measures should follow the waste hierarchy of waste avoidance, re-use and recycling and as a last resort, waste disposal at landfill.

A Waste Management Plan should provide the following information:

- the type and amount of waste / recyclable material to be generated during all relevant stages;
- how waste / recyclable material is to be stored and treated on-site;
- how residual waste / recyclable material is to be disposed of;
- the location, design and size of waste storage and recycling areas or rooms;
- truck access, should on-site servicing of bins be required; and
- how ongoing waste management will operate.

Note: A sample Waste Management Plan is provided in Appendix 1.

In addition to the submission of a WMP, the waste management facilities proposed as part of the development, shall be clearly illustrated on the plans of the proposed development, accompanying the development application (DA).

2.2 How are Waste Management Plans Assessed?

In assessing applications, details provided in the Waste Management Plan and on the site plan drawings will be checked for compliance with the performance criteria for the proposed use (e.g. Multi Dwelling housing, demolition, etc.), against the general aims and objectives of *DCP 2018: Chapter 2.14 – Site Waste Management* and these Guidelines.

2.3 How to Prepare a Waste Management Plan

Step 1 Read Table 2 (S.2.4) to identify which section(s) of the Waste Management Plan should be completed and the information to be included on the site plan drawings.

Step 2 Read the Sections 3 - 12 of these Guidelines relevant to your specific proposal

Step 3 The Waste Management Plan template within Appendix 1 will assist you with preparing your Waste Management Plan.

Step 4 Complete the relevant section(s) of the Waste Management Plan as identified in Step 1.

Step 5 Include relevant details as identified in Step 1 on your plan drawings.

Step 6 Submit both the completed Waste Management Plan and the site plan drawings together with your ***Development Application*** for demolition and subdivision and ***Construction Certificate*** for buildings for approval by Council.

2.3 What Information does Council Require?

A Waste Management Plan must be completed and included with your application. Relevant details of waste storage facility design and access must be shown on plan drawings submitted with your application.

2.4 Requirements for Waste Management Plans

Table 2: Requirements for Waste Management Plans

Land Use or Activity Proposed	Is a Waste Management Plan required?	Specific details to be provided on plan drawings	Performance Criteria
Subdivision, demolition, or site preparation - including vegetation removal, excavation and major internal renovations	Yes Section 1, Section 2 and Section 3 where applicable.	• on-site storage areas for storage of source separated waste and recyclable materials for re-use, recycling or disposal. • vehicular access to the site and on-site	• details of on-site storage areas for source separated waste and recyclable materials are provided. • waste disposal is minimised and waste avoidance, reuse and recycling maximised
Single dwelling, Dual Occupancy and Multi Dwelling Housing	Yes Section 1, 2 and 3.	**Construction stage:** • on-site storage areas for storage of source separated waste and recyclable materials for re-use, recycling • vehicular access to the site and on-site **Post construction** • location of waste and recycling containers • provision for composting or worm farming facilities • kerbside waste bin presentation location/s	• waste disposal is minimised and waste avoidance, re-use and recycling, particularly of construction material, is maximised • an accessible and usable waste and recyclable material storage area is provided on site that encourages the source separation of waste and recyclables (for construction stage and post construction)

Table 2: Requirements for Waste Management Plans (Cont.)

Land Use or Activity Proposed	Is a Waste Management Plan required?	Specific details to be provided on plan drawings	Performance Criteria
Residential Flat Building, Shop Top Housing	Yes Section 1, 2, 3 and 4	**Construction Stage:** • on-site storage areas for storage of source separated waste and recyclable materials for re-use, recycling • vehicular access to the site and on-site **Post-construction:** • Waste storage and recycling area(s) or garbage and recycling room(s) and design details e.g. floor plans, cross section, materials used etc. • a collection area, service lifts, chute system or volume reduction equipment (compactor), where appropriate and design details • access - collection vehicles including turning circles or turning areas • kerbside waste bin presentation location/s where appropriate	• waste disposal is minimised and waste avoidance, re-use and recycling, particularly of construction material is maximised • on-site source separation of waste and recyclable materials is facilitated • an accessible and usable waste storage & recycling area is provided for each unit or a communal storage area(s) is provided which is accessible to occupiers of all units • location and design of storage facilities complement the streetscape and do not impact on adjoining premises and the amenity of the units within the development • suitable access provided for collection vehicles • appropriate strategies are proposed to educate occupants to minimise contamination of recyclable material.

Table 2: Requirements for Waste Management Plans (Cont.)

Land Use or Activity Proposed	Is a Waste Management Plan required?	Specific details to be provided on plan drawings	Performance Criteria
Commercial Premises (Business, Office and Retail Premises), Pub, Registered Club, Hospital, Education Establishment, Entertainment Facility etc.	**Yes Section 1, 2, 3 and 4**	**Construction stage:** • on-site storage areas for storage of source separated waste and recyclable materials for re-use, recycling • vehicular access to the site and on-site **Post construction:** • waste storage and recycling area(s) or garbage and recycling room(s) and design details e.g. floor plans, cross section, materials used etc. • A collection area, service lifts, chute system or volume reduction equipment (compactor), where appropriate and design details access for collection vehicles including turning circles or turning areas	• waste disposal is minimised and waste avoidance, re-use and recycling of construction material is maximised • on-site source separation of waste and recyclable materials is facilitated • appropriately designed and accessible waste storage and recycling area(s) and / or garbage and recycling room(s) is provided on-site • suitable access provided for collection vehicles • appropriate arrangements are in place for ongoing waste management

Table 2: Requirements for Waste Management Plans (Cont.)

Land Use or Activity Proposed	Is a Waste Management Plan required?	Specific details to be provided on plan drawings	Performance Criteria
Industry	Yes Section 1, 2,3 and 4	**Construction stage:** • on-site sorting and storage areas for re-use, recycling and disposal of material • vehicular access to the site and on-site **Post-construction:** • waste storage and recycling area(s) including design details e.g. floor plans, cross section, materials used etc. • design details of any volume reduction equipment (compactor), where appropriate • access for collection vehicles including turning circles or turning areas	• waste disposal is minimised and waste avoidance, re-use and recycling of construction material is maximised • on-site source separation of waste and recyclable materials is facilitated • sufficient space provided on-site for separation and storage of recyclables and waste • for multi-use and industrial units, an appropriately designed and accessible waste storage and recycling area is provided per unit or a communal storage area(s) is provided which is accessible from each unit. • suitable access provided for collection vehicles • appropriate arrangements are in place for on ongoing waste management

2.5 When is a Different or Additional Application Needed?

In most circumstances waste management is considered as part of the DA process. However, some waste related uses/activities require different or additional applications. These requirements are summarised in Table 3. If this applies to you, contact the authority listed in Table 3.

Table 3: Uses/Activities requiring Specific Applications

Proposed Activity	Application Required	Comment
Major waste management facilities	• "Designated Development" - Application to Council, supported by an EIS. • Application to the EPA for registration	Refer Environmental Guidelines – Solid Waste Landfills (1996) and Draft Environmental Guidelines – Solid Waste Landfills (2015)
Controlled waste activity / facility	Application to the EPA for Licence	
Placing waste on a State road including builders waste storage container	Application to Roads & Traffic Authority (RTA) for approval under the Roads Act	
Disposal of liquid trade waste into the sewer	Application to Council	
Discharge into any water body	Application to the EPA/Council	

3. SUBDIVISIONS AND / OR DEMOLITION OF BUILDINGS (SITE PREPARATION)

3.1 Potential for Waste Minimisation

The demolition of buildings is the stage with the greatest potential for waste minimisation, particularly on the Central Coast where there are high levels of development.

The first issue that developers should consider is whether it is possible to re-use existing buildings, materials or parts thereof, for the proposed use.

The potential to incorporate existing trees / shrubs into the landscape plan should be a high priority consideration. Trees which are to be removed should be chipped on site and the material stored for use as mulch in landscaped areas.

Design that reduces excessive excavation of the site is to be encouraged.

With careful on-site sorting and storage and staging work programs it is possible to re-use many materials, either on-site or off-site.

Note: It is not acceptable to simply demolish the building and dispose of all material to landfill. *Instead a number of colour coded or clearly labelled bins on site or an ordered retrieval program should be used to reduce the need for waste disposal.*

Some examples of avoiding waste and recycling of materials are provided within Table 4 to help you in preparing your Waste Management Plan.

Table 4: Re-Use and Recycling Potential

Materials On-Site	Avoidance	Reuse	Recycling
Concrete	Retain existing driveways, paths, footings, slabs etc.	Filling, levelling materials, road base	Take to a building material recycling / reprocessing facility. Those materials are generally accepted at a significantly reduced cost compared to land filling.
Bricks	Retain existing walls, buildings and fences	Cleaned and / or rendered over for re-use on-site or offsite	
Roof-tile	Retention of existing roofs or colour treatments / cleaning	Crushed, used for drainage, landscaping and driveways, for re- use on-site or off-site	
Hardwood beams	Re-use or recycling on site.	Fencing, mulching	Take to processing facility at reduced cost
Other timber (untreated)	As above	Formwork, bridging, blocking and propping	
Garden Organics / Trees	As above	Mulching, composting, for reuse as landscaping / fertiliser	
Doors, windows, fittings	Design into new development	Relocated on-site or sold for use off- site	Take to a building material recycling / reprocessing facility
Synthetic & recycled rubber (e.g. Under carpets)	Protect / cover and re-use	Used for safety barriers, speed humps, sports surfaces	
Overburden	Avoid excess excavations	Stockpile topsoil and re-use	Waste management facilities generally accept clean fill at reduced cost
Steel (e.g. Corrugated iron)			Metal recyclers
Asbestos			

Where such materials cannot be recycled or re-used on-site there is a growing market for such product off-site.

When calculating the tonnages, the following conversion table may be used for 1m^3 of material:

Table 5 Conversion Table

One Cubic Metre	Tonnes (Estimate only)
Excavation Material	1.0
Bricks	1.3
Concrete	2.3
Timber	1.3
Metals	3.0

4. CONSTRUCTION STAGE

4.1 Potential for Waste Minimisation

It is important to note that waste separation may offer savings on the usual costs on disposing of mixed waste at landfills, and that savings may also be achieved at the construction stage by purchasing reusable and recycled-content materials or reusing materials salvaged from the subdivision / demolition stage.

The following measures should be considered at the construction stage:

- Purchasing policy, in particular considering measures such as;
  - ordering the right quantities of materials,
  - prefabrication of materials where possible
- Re-using formwork;
- Modular construction and basic designs to reduce the need for off-cuts;
- Minimising site disturbance, limiting unnecessary excavation;
- Careful source separation of off-cuts to facilitate re-use, resale or efficient recycling;
- The demolition of the building when its usable life has expired (e.g. can components be easily dismantled?);
- Choice of landscaping to reduce garden organics; and
- Co-ordination and sequencing of various trades.

5. ALL DEVELOPMENTS

5.1 Contracts

The structure of waste collection and recycling contracts let by Central Coast Council plays an important role in ensuring efficient servicing. Indemnity and waste service flexibility are two important contract issues that should be considered in relation to deciding an appropriate better practice system for your development. It is important to talk to Council as early as possible to identify potential servicing issues, this can be discussed at a Pre-Development Meeting.

Development Application or Construction Certificate submissions must clearly indicate on the plans:

- The location of an onsite waste/recycling storage area that is sufficient size to accommodate Council's waste, recycling and garden organic bins
- An identified kerbside for the collection and emptying of Council's waste, recycling and garden waste bins
- Waste containers are to be stored in a suitable location so as to avoid vandalism, nuisance and adverse visual impacts
- Where possible, the waste/recycling storage area should be located to minimize the distance of travel to the collection point
- The waste storage area is to be easily accessible and have an unobstructed access to Council's usual collection point
- The placement of bins for collection at the nominated collection point should ensure that adequate traffic, pedestrian safety and access is maintained.
- Consideration should be given to providing sufficient space within the kitchen (or an alternate location) for the interim storage of waste and recyclables.
- An area for bin wash down is to be provided within the site. This area is to be located within a

bunded area drained to a sewer system or can be an unpaved earth surface.

5.2 Indemnity

Council may provide on-site collection where:

- There is insufficient space on the kerbside to temporarily place bins for waste collection
- Collection of waste from the kerbside would be unsafe
- Collection of waste from the kerbside would cause significant traffic disruptions
- Collection of waste from the kerbside would occur in an excessively restrictive area
- Council considers kerbside collection inappropriate

Council's Waste Collection Contractor, however, will not enter private property with their vehicles unless indemnity against liabilities, losses, damages and other costs arising from the onsite collection service has been provided by the owner.

5.3 Collection Point

Location of garbage and recycling collection point

Consideration should be given to identifying a suitable waste collection point. Collection points where possible must not be located:

- Near intersections
- Near roundabouts or slow-points
- Along busy arterial roads
- In narrow lanes
- Near possible obstructions, including trees, overhanging building elements and overhead powerlines; or
- Where they pose a traffic hazard

The collection point(s) should enable collection operations to be carried out on a level surface away from gradients and vehicle ramps.

Where Mobile Garbage Bins (MGBs) will be used and collected from the kerb, there should be sufficient space on the street for them to be lined up neatly in a single row along the kerb. Inappropriate kerbside bin presentation is an obstacle for safe and efficient kerbside collection, as they require collection operators to get out of the collection vehicle and manually move bins to an appropriate position for collection. MGBs also create amenity issues for residents and can impede pedestrian access. They can also be a traffic hazard for motorists and pose a WHS risk to the waste collection contractor.

Identifying a suitable collection point is particularly important for servicing sites where there are a large number of bins to be collected, there is limited direct access to the development (for example battle-axe block developments), or where the site has specialised servicing requirements due to equipment used to provide the waste service. For example, the collection point for bulk bins should be located such that the bins can be accessed with minimal manual handling required.

Developers should consider what alternatives are available for locating collection points, particularly for developments built on small blocks with steep gradients, to enable safe presentation and uplift of bins. Council's Waste Collection Contractor will not enter private property to make collections or will only do so if an indemnity has been provided.

It is important to confirm potential arrangements for onsite collection with Council before assuming that it will be possible. Where an agreement for onsite collection is made, the onsite collection points should be located:

- So that collection vehicles do not interfere with the use of access driveways, loading bays or parking bays during collections
- Close to waste storage facilities to permit easy transfer of bins to the collection point, if relocation of bins is required.
- In a relatively flat area and on the same level as the collection vehicle (i.e. maximum 3% gradient to the bulk waste bin storage enclosure, bulk bin roll out area/s and waste truck servicing location.)
- In a position that provides collection vehicles safe access to the collection point and which has adequate clearance and manoeuvring space.
- So oncoming traffic can be clearly seen as the collection vehicle leaves the property.

5.4 Access to the Collection Point for the Waste Collection Contractor

Specific access requirements for collection vehicles will vary slightly site to site, depending upon the waste collection arrangements. In all cases, however, collectors need to be able to move bins from the collection point to the vehicle as quickly as possible, preferably with no manual handling, particularly if bulk bins are used.

Irrespective of the bin type used, the developer needs to ensure there is sufficient space for the collection vehicle to drive to the collection point, empty the bin and safely leave the collection point. Waste collection vehicle movement should be in a forward direction with no need to reverse.

The design aspects to take into account for vehicle access include:

- the presence of parked cars on access roads
- heavy vehicle access and turning circle requirements (refer Appendices 6 and 10)
- collection vehicle overhang and possible interference with bins and street furniture
- clearance height for servicing, particularly when developments are serviced internally, or where an external collection point is near trees or overhead obstacles

In addition to the above design aspects, general access to the collection point should be considered in the development design and operation. Locked gates and security systems that prevent access to waste collection points can cause serious delays and problems in servicing if not well designed and/or waste collection operators are not provided with the required authority for access. Designers and developers should consider the likely ongoing operational arrangements for access to locked gate communities and how this needs to be incorporated in the design. Council's Collection Contractor will require a set of keys or remote-control access to enter secured developments.

Remember, garbage and recycling collection will occur at different times thus access should not be restricted at any time.

5.4.1 On-site collection

If a collection vehicle is required to drive onto a private road or private property, the driveway and road need to be suitable for the collection vehicle in terms of strength, width, geometric design and height. The access points and collection area should be free from overhead obstacles and of an appropriate gradient. When making an on-site collection from within a building, the 'clearance height' should be clear of any air conditioning ducts, sprinklers or other potential obstructions.

Appropriate heavy vehicle standards should be incorporated into the development design, including those specified in acts, regulations, guidelines, and codes administered by Austroads, the NSW Roads and Maritime Services, NSW WorkCover and any local traffic requirements.

All waste vehicle manoeuvring within a development, needs to be designed and certified to meet the requirements of AS2890.2, Part 2: Off-Street Commercial Vehicle Facilities, by a practicing, recognized Traffic Engineer.

5.5 Noise

The main sources of noise associated with domestic waste collection are emptying glass into bins, emptying glass from bins into the collection vehicle and reversing alarms on collection vehicles.

Better practice principles that should be incorporated to reduce noise include:

- Locating bin bays and collection points far enough away from residents as to reduce the impact of noise during bin use and waste collection.
- Eliminating the need for collection vehicles to reverse.
- Chutes, if installed, should be well insulated to avoid noise disturbing neighbouring units. The noise associated with waste falling out the bottom of the chute can also be problematic and should be dealt with.
- Select appropriate surfacing materials that will assist in minimising noise for pathways and driveways that bins will need to be wheeled over.
- Consider how material will be transferred into bins or static compactors at storage points.

5.6 Odour

Odour problems can be minimised by having well-ventilated waste storage areas.

For enclosed storage and service areas, the air flowing from interim storage areas and central garbage rooms should not exit close to units. Ventilation openings should be protected against flies and vermin and located as near the ceiling and floor as possible, but away from the windows of dwellings.

If a forced ventilation or air conditioning system is used (for enclosed storage areas):

- It should be in accordance with the ventilation requirements of the *Building Code of Australia* and *Australian Standard 1668.2 – The use of Ventilation and Air Conditioning in Buildings*; and
- It should not be connected to the same ventilation system supplying air to the units

5.7 Visual Amenity

All waste management facilities (including storage areas) should be adequately screened, not readily visible from any public place and should blend in with the development (Refer Figure 2).

A poorly designed and poorly located bin storage area can detract from the overall development, encourage misuse of the facilities provided and affect recycling outcomes.

Remember to consult with council engineers, planners and waste managers regarding specific requirements for facility design and placement in accordance with *DCP 2018, Chapter 2.14 – Site Waste Management* and *State Environmental Planning Policy 65 – Design Quality of Residential Apartment Development*.

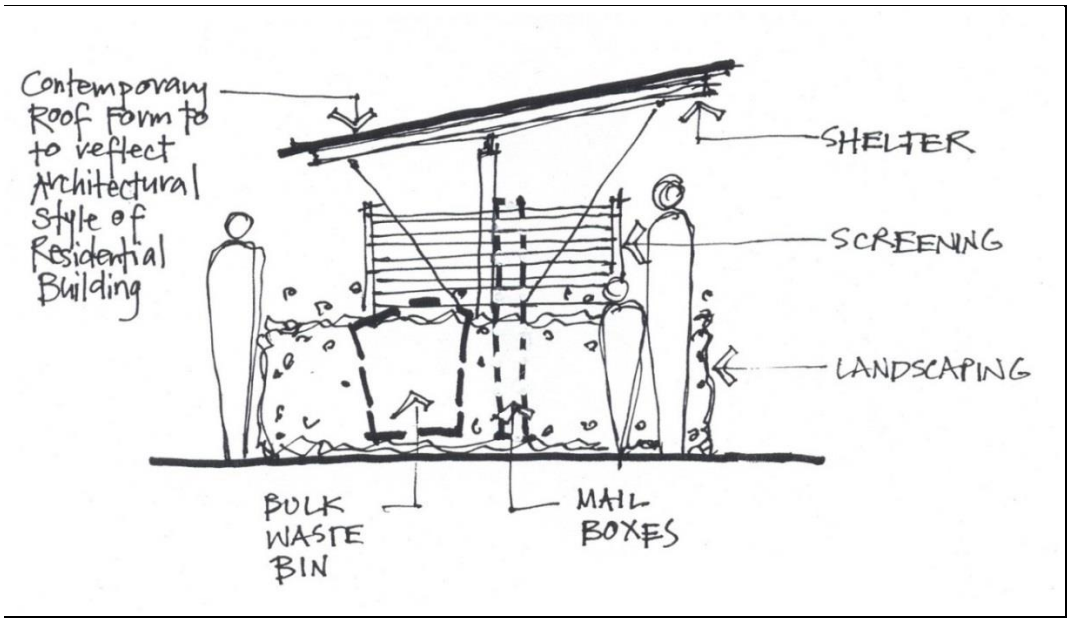

Figure 2: Example of Screening Waste Storage Areas

5.8 Signs and education

Ongoing education, in addition to having dedicated ongoing management services, is one of the most important factors in encouraging residents to continue to use services and systems as originally planned.

The importance of signs and education is two-fold: to inform residents why it is important to recycle (raise awareness and perceived importance of resource recovery and the environment), and secondly to provide clear instruction on how to recycle using the services provided. Both these factors influence people's attitude towards recycling.

Ensuring education is 'ongoing' is beneficial because it tackles the transient nature of residents and differences between council services.

Clearly and correctly label all garbage and recycling bins or receptacles. Make sure communal waste storage areas are well signposted, with signs instructing residents in the correct separation of garbage, recycling and organics. Also clearly identify any hazards or potential dangers associated with the waste facilities, including those from the use of any waste handling equipment.

It is recommended you also display information in communal areas that identifies who can be contacted to find out more about the recycling and/or other services in the development.

6 DUAL OCCUPANCY, MULTI DWELLING HOUSING AND ATTACHED HOUSING

6.1 Individual Unit Waste Storage and Recycling Areas

Development with sufficient street frontage and where practical to do so, shall provide each dwelling with its own waste and recycling bins, to be stored within the curtilage of the dwelling. Individual unit holders shall be responsible for the placement of the bins on the kerb on collection day.

In order to enable better practice waste management in Multi Dwelling Housing Developments:

Designers / developers:

- Decide the preferred waste management system to install having regard to the principles outlined in this guide
- Before submitting your development application, meet with council to discuss if on- site

collection is required or allowed, this can be achieved at the Pre-Development Application Meeting.

- If on-site collection is required: Ensure design of facilities can safely accommodate on-site collection;
- Liaise with Council to find out if it can provide the on-site service; and
- Identify indemnity arrangements that would be needed to service the development

6.2 Storage of Mobile Garbage Bins (MGBs)

Waste Storage and Recycling Areas and Rooms

A communal on-site storage and recycling area for MGBs, or a garbage and recycling room, must be provided for Dual Occupancy, Multi Dwelling Housing and Attached Dwellings, where:

- it is not possible, or it is impractical, to store individual bins within the curtilage of each dwelling.

The waste storage and recycling area shall be of sufficient size to accommodate the number and types of waste MGBs and 240 litre recycling MGBs required, commensurate with the size of the development (refer to Appendix 4 for number and types of bins required and Appendix 5 for bin dimensions). Figures 3, 4 and 5 provide examples of storage areas for MGBs.

Residential Developments in the form of multi dwelling housing must include either individual waste/recycling storage areas for each dwelling or a communal facility designed in accordance with Appendix 6: Waste Recycling/Storage Rooms/Areas in Multi Dwelling Housing

On difficult or steep sites, sites with particular natural features (such as watercourses), sites with two street frontages, etc., it may be appropriate or necessary to have more than one waste storage and recycling area to minimise travel distances for residents. Information on location and construction details, size of the waste and recycling storage area and number of bins proposed shall be attached to the Waste Management Plan.

It shall be the responsibility of residents or a caretaker to wheel bins from waste storage and recycling area to the collection point at the kerb. Consideration should be given to manual handling requirements and slope.

MGB's are to be transported to the identified collection point no earlier than the evening before collection day and returned to their approved storage area no later than the evening of collection day. Bins are to remain in their onsite storage area at all other times.

6.2.1 General

Communal waste storage facilities can be either:

- Waste Storage and recycling areas (common external areas for the storage of waste and recycling bins which are not part of a dwelling); or
- Waste Storage and recycling rooms (common areas for the storage of waste and recycling bins which are accommodated within a building but not within a dwelling).

Determining the best location for communal bin storage areas can be difficult. Garbage and recycling storage facilities should be located in positions that:

- Permit easy, direct and convenient access for the users of the facility
- Permit easy transfer of bins to the collection point if relocation of bins is required
- Permit easy, direct and convenient access for collection serviced providers
- Are well screened and do not reduce amenity
- Are secure and provide protection against potential vandalism

However, the aesthetics of the development, in particular its appearance from the street, must not be compromised. Design and construction of a bin storage area that integrates with the overall development and landscape plan should avoid this problem.

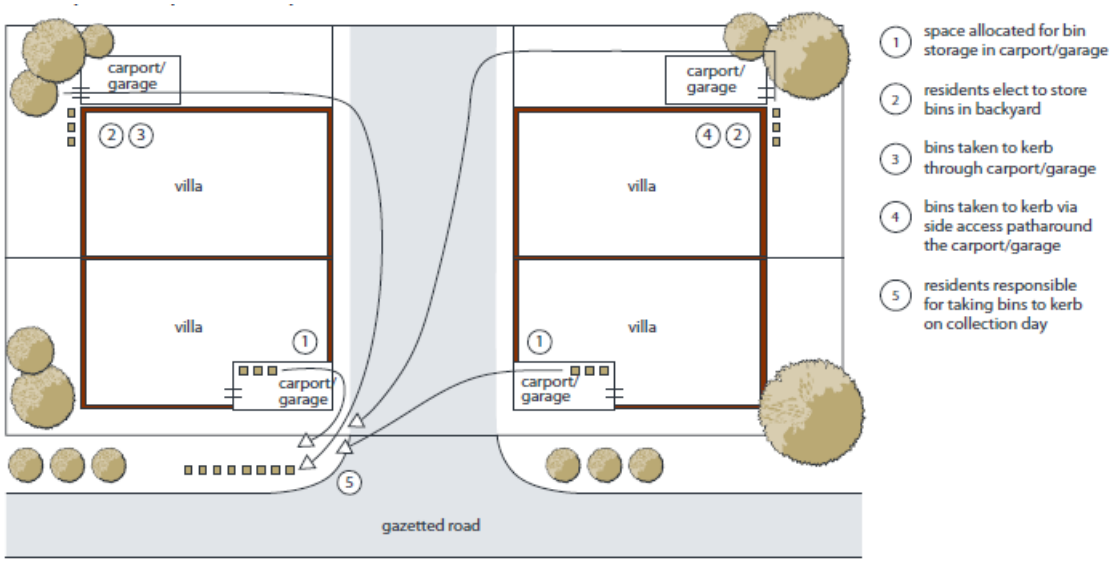

Figure 3: Example of Storage Area within the dwelling footprint for MGB's suitable for Attached Housing and Multi Unit Dwellings

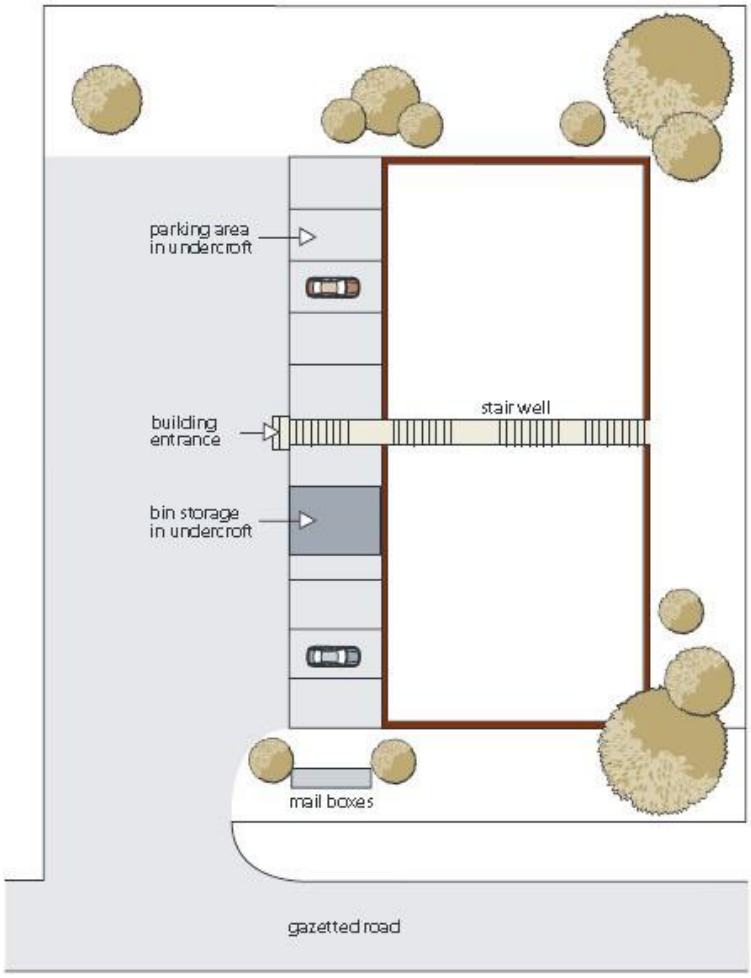

Figure 4: Example of Communal Storage Area for MGB's suitable for Attached Housing and Multi Unit Dwellings

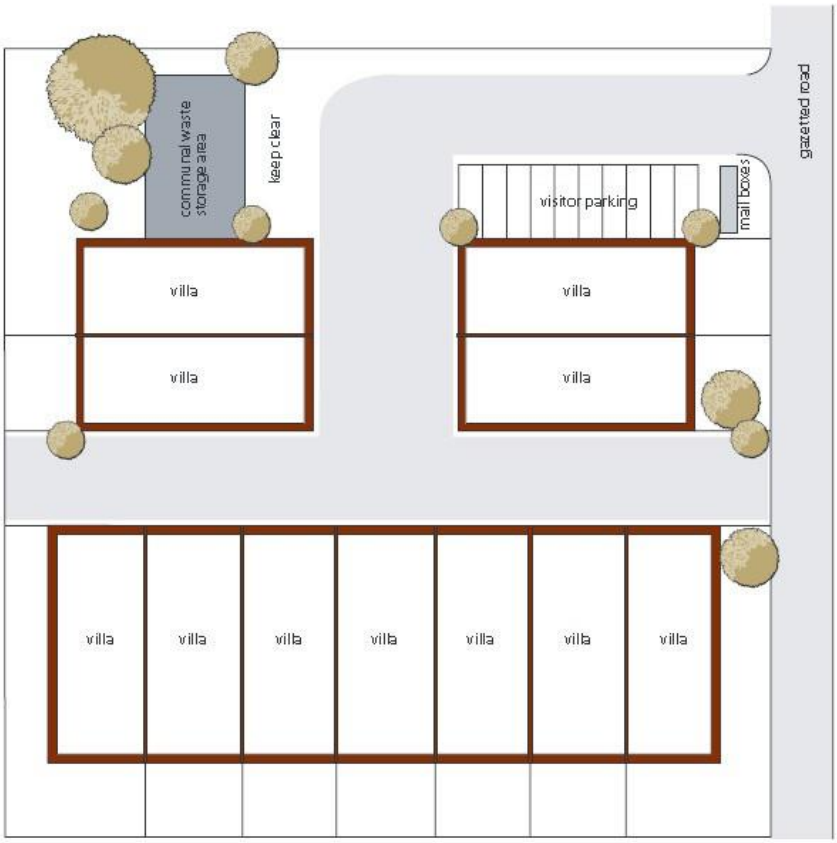

Figure 5: Example of Communal Storage Area for Bulk Bins suitable for Attached Housing and Multi Unit Dwellings

6.2.3 Storage of Bulk Waste Bins

Waste Storage and Recycling Areas and Rooms

In the following circumstances a communal on-site waste storage and recycling area or room for bulk bins must be provided for multi dwelling housing developments:

- where the size of the development exceeds 12 dwellings
- where the number of bins would not fit comfortably on the street frontage or would detrimentally affect residential amenity.

The Waste Storage and Recycling Area shall be of sufficient size to accommodate the number and types of bulk bins and 240 litre recycling MGBs required commensurate with the size of the development (refer to Appendix 4 for number and types of bins required and Appendix 5 for bin dimensions)

On difficult or steep sites, sites with particular natural features (such as watercourses), sites with two street frontages or particularly large developments it may be appropriate or necessary to have more than one waste storage and recycling area to minimise travel distances for residents and facilitate collection arrangements.

The Waste Storage and Recycling Area for bulk waste bins shall be located in the basement of the development or if located above ground must be appropriately screened. Information on the size, location and construction details and the number and types of bins proposed, shall be shown on the plans and attached to the waste management plan.

If garbage and recycling rooms are proposed in conjunction with waste storage areas it is necessary to indicate in the Waste Management Plan how waste and recyclables are to be transported from the garbage room to the storage area as advised in Appendix 6.

Adequate space shall be provided within the site to accommodate a rear-loading collection vehicle and to ensure that the vehicle is allowed to enter and exit in a safe manner. This may require the provision of a turning bay for trucks or provision of adequate turning circles. If turning circles are proposed they must comply with the turning circle for garbage trucks in Central Coast Council LGA. A copy of this turning template is provided in Appendix 9.

Applicants shall provide information on turning circles in the waste management plan to demonstrate compliance. Pedestrian and traffic safety must be considered in the design of the storage and collection points for bins. W aste collection vehicle movement should be in a forward direction at all times. Indemnity is required in situations where the collection truck is required to enter the site to perform on-site services.

7 RESIDENTIAL FLAT BUILDINGS

7.1 Residential Flat Buildings General

The design of waste and recycling storage areas within the unit and property affects ease of use, amenity, access, 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. Resources such as the *Better Practice Guide for Waste Management in Multi-Unit Dwellings (2008)* may be used to inform design solutions of Residential Flat Buildings and the technical requirements covered by these guidelines.

7.2 Service Flexibility

The design of the waste management system should accommodate services provided by Council. In many cases, particularly for medium to high-rise developments, the efficient provision of cost-effective garbage and recycling collection services for may require using an alternative service options such as bulk bins.

Submission plans must clearly indicate:

- The location of an indoor waste/recycling cupboard (or other appropriate storage space) for each dwelling
- The location of individual waste/recycling storage areas or a communal waste/recycling storage room(s) able to accommodate Council's waste, recycling and garden waste bins
- The layout of bulk bins within storage areas/rooms including space between the bins. Bulk bins are not to be placed at the kerbside.
- The location of any garbage chute(s) and interim storage facilities for recyclable materials on each floor
- The location of any service rooms (for accessing a garbage chute) on each floor of the building
- An identified collection point for the collection and emptying of Council's waste, recycling and garden waste bins, for a once a week collection service unless otherwise approved by Council
- The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area)
- The traced path of travel for collection vehicles (if collection is to occur on-site), taking into account accessibility, width, working height, pavement type and strength and grade. See Appendix 9
- Systems should be designed to maximise source separation and recovery of recyclables.
- Waste management systems should be designed and operated to prevent the potential risk or injury or illness associated with the collection, storage and disposal of wastes

7.3 Residential Developments greater than 12 units

Waste collection requires an on-site storage point accessible by waste collection vehicle, collection services on a once per week basis.

The design of on-site storage collection areas or room(s) is to comply with the access and engineering, occupational health and safety requirements of Appendix 9 - Waste Management Servicing.

The following minimum collection and storage facilities shall be provided:

- Consideration of an indoor waste/recycling cupboard (or other appropriate storage space) for the interim storage of a minimum one day's garbage and recycling generation, in each dwelling.
- Residential Developments must include communal waste/recycling storage facilities designed in accordance with Appendix 6: Waste Recycling/Storage Rooms in Multi-Unit Dwellings
- The waste/recycling storage area(s) or room(s) must be of a size that can comfortably accommodate separate garbage, recycling and garden waste containers with the appropriate spacing as required by Appendix 6 Waste Recycling/Storage Rooms/Areas in Residential Developments
- Residential Developments greater than 12 units must provide for bulk bin collection service. All bulk bins are to be stored and serviced within the property

The following location and design criteria shall apply to collection and storage facilities:

- Consideration should be given to providing an unobstructed and Continuous Accessible Path of Travel as per *Australian Standard 1428 Design for Access and Mobility* from the waste/recycling storage area(s) or room(s) to:
    - the entry to any Adaptable Housing as per *Australian Standard 4299 Adaptable Housing*
    - the principal entrance to each residential flat building
    - the point at which bins are collected/emptied.

In instances where a proposal does not comply with these requirements, Council will consider alternative proposals that seek to achieve a reasonable level of access to waste/recycling storage area(s) or room(s), provided there are no obstructions such as, barrier kerb, steps, grills, columns and the like.

- Communal waste storage areas should have adequate space to accommodate and manoeuvre Council's required number of waste and recycling containers.
- Each service room and storage area must be located for convenient access by users, be well ventilated and well lit.
- Where site characteristics, number of bins and length of unobstructed street frontage allow, bins may be collected from a kerbside location. 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 storage point located inside the property boundary and as close as possible to a property entrance.
- Where bins cannot be collected from a kerbside location the development must be designed to allow for on-site access by garbage collection vehicles . 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. Refer Appendix 9 - Waste Management Servicing.

- 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, for heavy rigid vehicles.
- 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.
- If mobile bins need to be moved from normal storage areas to the kerbside for collection purposes, it is the responsibility of the residents or 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.
- Residents should have access to a cold water supply 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.
- The design and location of waste storage areas/facilities should be such that they complement the design of both the development and the surrounding streetscape. (Figures 6 and 7 provide examples of communal storage areas for bulk bins and MGB's)
- Developments containing four or more storeys should be provided with a suitable waste storage area for the transfer of waste and recyclables from each storey to waste storage/collection areas.
- Garbage chutes should be designed in accordance with Appendix 7: Garbage Chutes, the *Building Code of Australia* and *Better Practice Guide for Waste Management in Multi-Unit Dwellings (2008)*. 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.

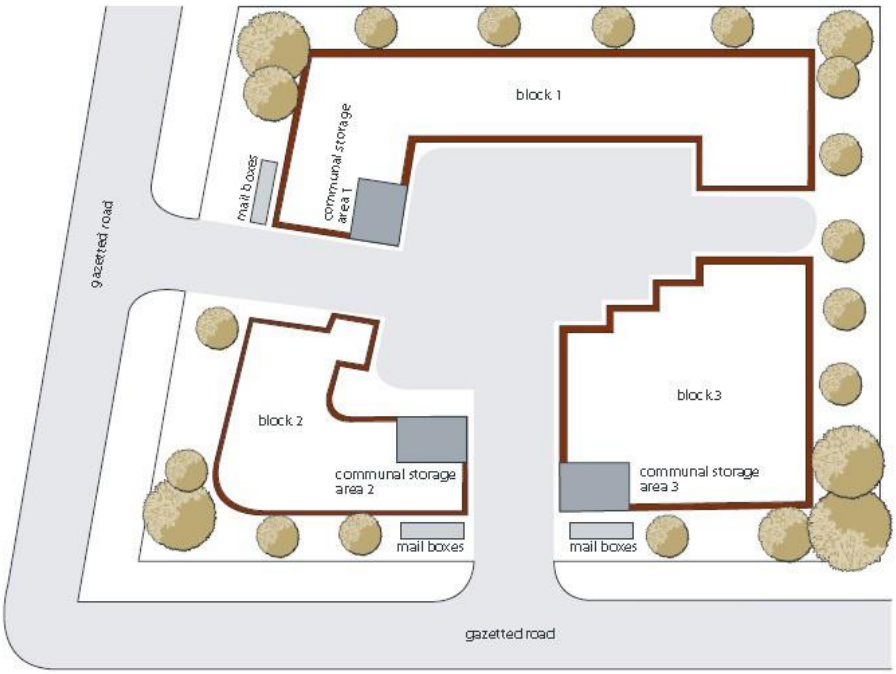

Figure 6: Example of Communal Storage Area for Bulk Bins suitable for Residential Flat Buildings Greater than 12 Dwellings.

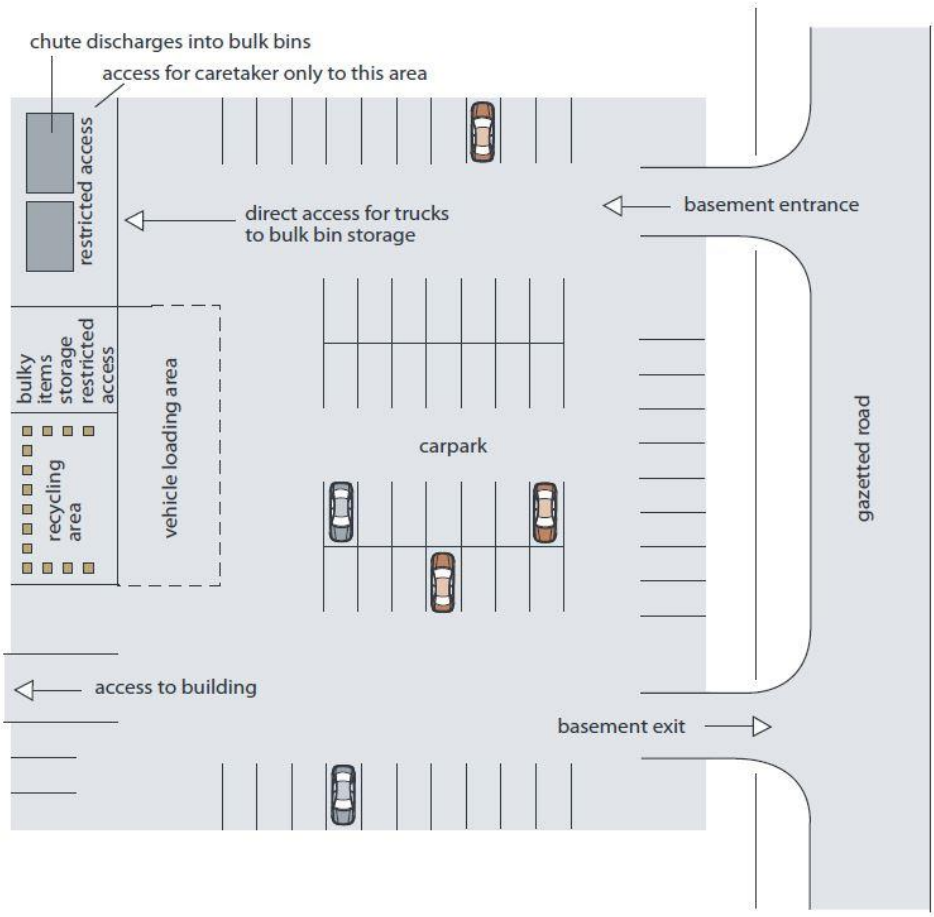

Figure 7: Example of Communal Storage Area for Bulk Bins suitable for Residential Flat Buildings Greater than 12 Dwellings.

The following management responsibilities shall be addressed:

- 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.
- Traffic warning devices including mirrors, lights, and signage may need to be installed to reduce the frequency of accidents.
- Internal management must provide for temporary storage areas and the transporting waste/recyclables from one area to another e.g. lifts, forklifts, tractors, trucks and the like.

Indemnity

Council will require indemnity for all waste collectors and/or waste collection vehicles that are required to enter a site to collect waste. The indemnity will be against claims for loss or damage to the pavement or other driving surface, liabilities, losses, damages and any other demands arising from any on-site collection service. This will be required to be undertaken by the creation of a S88B instrument under *The Conveyancing Act, (1919)* with all costs being met by the applicant. This is to occur prior to the issue of an occupation certificate.

8. MIXED USE DEVELOPMENT

Mixed use developments incorporate residential dwellings and commercial establishments within the same building and would include, for example, shop-top housing.

Mixed use developments may be small, for example, two storeys, incorporating residential units on second floor and commercial outlet on ground level, or they may be large, with one or more levels of commercial beneath medium to high-rise residential developments (see Figure 8).

8.1 Key problems

There are often serious problems with commercial tenants using the residential waste facilities (or vice versa) in mixed use developments, which can cause overloading of the waste management system, unhygienic conditions and disputes over payment for collection.

Mixed Use development must incorporate separate and self-contained waste management systems for the residential component and the non-residential component. In particular, the development must incorporate separate waste/recycling storage rooms/areas for the residential and non-residential components. Commercial tenants must be prevented (via signage and other means), from using the residential waste/recycling bins and vice versa.

The residential waste management system and the non-residential waste management system must be designed so that they can efficiently operate without conflict. Conflict may potentially occur between residential and non-residential storage, collection and removal systems, and between these systems and the surrounding land uses. For example, collection vehicles disrupting peak residential and commercial traffic flows or causing noise issues when residents are sleeping.

Separate residential and commercial waste management systems are needed to minimize conflict arising from inappropriate vehicular movement. Servicing waste trucks should operate outside of peak traffic times and not when residents are sleeping.

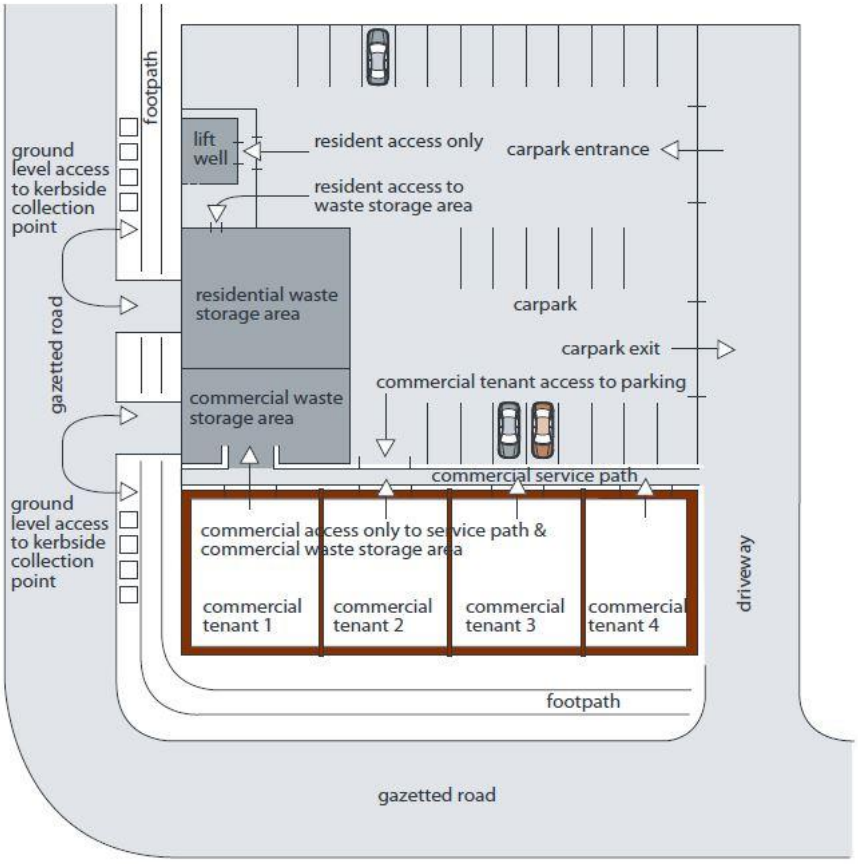

Figure 8: Example of waste storage in mixed use development

8.2 Provision of services

Central Coast Council is not required to provide waste services to commercial businesses, so they may elect to only service the residential dwelling component of mixed-use developments. In this situation a private waste contractor would be required to remove the commercial waste, commercial garbage and recycling.

Private waste contractors are not permitted to collect residential waste under existing contractual provisions.

It should be noted that if a private contractor were used to provide the garbage and recycling services, residents will be required to pay a service charge to Council in accordance with the *Local Government Act (1993)*, in addition to the contractor's fee.

8.3 Commercial

The garbage and recycling systems installed in commercial developments will vary according the types and quantities of waste and recyclables generated.

Better practice waste management should be achieved by applying the general principles as outlined for commercial developments. Some indicative commercial waste generation rates are included in Appendix 2 as a guide.

8.4 Waste Storage and Recycling Area

Waste Storage and Recycling Areas must be provided for commercial premises where it is not possible or impractical to store bins within the curtilage of each commercial unit. The waste storage and recycling area shall be of sufficient size to accommodate the number and types of waste bins (bulk bins and/or MGBs) and 240 litre recycling MGBs required commensurate with the size of the development (refer to Appendix 4 for number and types of bins required and refer to Appendix 5 for bin dimensions)

The size of the waste storage and recycling area shall be calculated on the basis of waste generation rates and proposed bin sizes. Calculation of waste generation rates should be based on industry standards. General advice on anticipated generation rates is provided in Appendix 2.

Information on the location and construction details and sizes and of the waste and recycling storage area and the number and types of bins proposed shall be attached to the Waste Management Plan.

Where it is proposed to service bins on-site, adequate space shall be provided within the site to accommodate a waste collection vehicle and to ensure that the vehicle is allowed to enter and exit in a safe manner. This may require the provision of a turning bay for trucks or provision of adequate turning circles. If turning circles are proposed, they must comply with the turning circle for appropriate garbage trucks. The Waste Management Plan must provide information on the turning circles proposed.

The use of volume reduction equipment may be appropriate where space is a problem. If volume reduction equipment is proposed details must be provided in the Waste Management Plan.

Volume Reduction Equipment and Food Waste Disposal Units

Where it is considered necessary, compaction and other volume reduction equipment may be provided in the waste storage and recycling room. Such equipment could save space on site, where difficult design constraints occur. Waste reduction equipment should be considered for all buildings greater than 25 metres high. Volume reduction equipment must not be used for recyclables as removing contaminants from compacted recyclables is almost impossible and markets will reject compacted loads containing contaminants. Compaction equipment must be suitably soundproofed. In normal circumstances, there will not be a reduction in area requirements where such equipment is proposed Council considers that area requirements should allow for possible changes in on-site waste management arrangements.

8.5 Garbage Chute

Buildings containing more than three storeys shall be provided with an acceptable method for transporting waste from each level to a garbage and recycling room. This could be a goods lift, a chute system (refer to Appendix 7 for further information), or some other means of providing direct and convenient internal access. Where such facilities are utilised, space must be provided at each level for temporary storage of recyclables. Information shall be provided on the design of the garbage chute, location, design and size of the recycling room(s) and how recyclables are transported to a waste storage and recycling area.

Garbage chutes must be designed in accordance with Appendix 7 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. Alternative interim disposal facilities for recyclable material should be provided at each point of access to the garbage chute system.

Ongoing management is a significant issue and details are required in the Waste Management Plan.

8.6 Food Shops, Restaurants and Refrigerated Garbage Rooms

Special attention should be paid to food waste generation. Specialised containment should be provided and a regular and frequent collection service arranged to ensure that no impacts result from the activity.

8.7 Grease Arresters

Contact should be made with Central Coast Council's and Trade Waste section to obtain trade waste requirements for the installation of grease arresters and liquid waste.

9. COMMERCIAL DEVELOPMENTS AND CHANGE OF USE

Council does not provide a commercial collection service, generally commercial premises are predominantly serviced by a commercial waste operator although some minor servicing is provided. It is recommended that Council is consulted in the early stated of development.

A Waste Management Plan is required to be submitted in accordance with the following requirements as of this section.

- The location of the designated waste and recycling storage room(s) or areas, sized to meet the waste and recycling needs of all tenants.
- The location of temporary waste and recycling storage areas within each tenancy. These are to be of sufficient size to store a minimum of one day's worth of waste.
- An identified collection point for the collection and emptying of waste, recycling and garden waste bins.
- The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area).
- The on-site path of travel for collection vehicles (if collection is to occur on-site).
- There must be convenient access from each tenancy to the waste/recycling storage room(s) or area(s). There must be obstruction free access between the point at which bins are collected/emptied and the waste/recycling storage room(s) or area(s).
- All bulk bins are to be stored and collected within the property.
- Every development must include a designated waste/recycling storage area or room(s) (designed in accordance with Appendix 8 Commercial/Industrial Waste and Recycling Storage Areas).
- 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.

- 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 waste and recyclables that are generated.
- Between collection periods, all waste/recyclable materials generated on site must be kept in enclosed bins with securely fitting lids, so the contents don't leak or overflow. Bins must be stored in the designated waste/recycling storage room(s) or area(s).
- Arrangements must be provided in all parts of the development for the separation of recyclable materials from general waste and for their transfer to the main waste/recycling storage room/area.
- The waste/recycling storage room/area must accommodate bins that are of sufficient volume to contain the quantity of waste generated (at the rate described in Appendix 2 Waste/Recycling Generation Rates) between collections.
- 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.
- The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of the nominated waste contractor.
- Waste management facilities must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
- The size and layout of the waste/recycling storage room/area must be capable of accommodating reasonable future changes in use of the development.
- A waste/recycling cupboard must be provided for each and every kitchen area in a development, including kitchen areas in hotel rooms, motel rooms and staff food preparation areas. Each waste/recycling cupboard must be of sufficient size to hold a minimum of a single day's waste and to hold separate containers for general waste and recyclable materials.
- Premises that discharge trade wastewater must do so only in accordance with a written approval from the Central Coast Council. In this regard an application for approval is required to be obtained from Council prior to the commencement of any works. Trade waste water is defined 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 waste water (e.g., from hand basins, showers and toilets)."
- 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.
- 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 regard to these matters.
- Any garbage chutes must be designed in accordance with the requirements of Appendix 7 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.
- Traffic warning devices including mirrors and lights should be considered to reduce the likelihood of accidents occurring.
- Community sharps containers should be installed in appropriate circumstances.

A range of non-residential uses present an array of unique waste minimisation opportunities and management requirements. Flexibility in size and layout is often required to cater for the different needs of multiple tenants as well as future changes in use.

Note: Storage and disposal of liquid waste, such as oils and chemicals, are not covered by this Waste Management Guideline.

Note: The nature of the development or change in use will determine whether a development application or construction certificate is required. In all cases a WMP must be completed to ensure maximum waste minimisation and management benefits are achieved.

10. INDUSTRIAL

Council does not have an industrial collection service however a waste management plan and waste management strategy is required to be submitted.

Waste Storage and Recycling Areas shall be required for industrial premises where it is not possible or impractical to store bins within the curtilage of each industrial unit.

The size of the waste storage and recycling area shall be calculated on the basis of waste generation rates and proposed bin sizes. Calculation of waste generation rates should be based on industry standards. General advice on anticipated generation rates is provided in Appendix 2.

Information on the location and construction details and sizes and of the waste and recycling storage area and the number and types of bins proposed shall be attached to the Waste Management Plan.

Where it is proposed to service bins on-site, adequate space shall be provided within the site to accommodate a waste collection vehicle and to ensure that the vehicle is allowed to enter and exit in a safe manner. This may require the provision of a turning bay for trucks or provision of adequate turning circles. If turning circles are proposed, they must comply with the turning circle for appropriate garbage trucks. The Waste Management Plan must provide information on the turning circles proposed; see Appendix 9 for additional information.

The use of volume reduction equipment may be appropriate where space is a problem. If volume reduction equipment is proposed details must be provided in the Waste Management Plan.

The area(s) should be flexible in design so as to allow for future changes of use of the units.

Industrial developments typically produce a diverse range of waste products. Some of these waste products may be hazardous and require compliance with established laws/protocols that are additional to this chapter. Other waste products are similar in nature to commercial and domestic waste streams. Mixing waste products limits potential reuse and recycling opportunities and may distribute toxic material through a larger volume of wastes.

The Waste Management Plan is to be submitted in accordance with the following requirements as of this section.

- The location of designated waste and recycling storage room(s) or areas sized to meet the waste and recycling needs of all tenants. Waste should be separated into at least 4 streams, paper/cardboard, recyclables, general waste, industrial process type wastes.
- The on-site path of travel for collection vehicles.
- Evidence of compliance with any specific industrial waste laws/protocols. For example, those related to production, storage and disposal of industrial and hazardous wastes as defined by the *Protection of the Environment Operations Act (1997)*.
- There must be convenient access from each tenancy of the development 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).
- Every development must include a designated general waste/recycling storage area or room(s) (designed in accordance with Appendix 8 Commercial/Industrial Waste & Recycling Storage Areas), as well as designated storage areas for industrial waste streams (designed in accordance with specific waste laws/protocols).
- Depending upon the size and type of the development, it might need to include separate

waste/recycling storage room/area for each tenancy and/or larger waste producing areas.

- All tenants must keep written evidence on site of a valid contract with a licensed waste contractor for the regular collection and disposal of all the waste streams and recyclables which are generated on site.
- Between collection periods, all waste/recyclable materials generated on site must be kept in enclosed bins with securely fitted 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).
- Arrangements must be in place in all parts of the development for the separation of recyclable materials from general waste including the movement of recyclable materials and general waste to the main waste/recycling storage room/area.
- The waste/recycling storage room/areas must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated between collections.
- The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of the nominated waste contractor.
- Waste management storage rooms/areas must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
- A waste/recycling cupboard must be provided for each and every kitchen area in the development. Each waste/recycling cupboard must be of sufficient size to hold a minimum of a single day's waste and to hold separate containers for general waste and recyclable materials.
- Premises that discharge trade wastewater must do so only in accordance with a written approval from Central Coast Council. In this regard an application for approval is required to be obtained from the Council prior to the commencement of any works. Trade waste water is defined 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 waste water (e.g., from hand basins, showers and toilets)'.
- 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 regard to these matters.
- Production, storage and disposal of hazardous wastes (such as contaminated or toxic material or products) require particular attention. The appropriate laws and protocols should be observed.

11. PUBLIC EVENTS

An adequate number of waste and recycling bins shall be provided based on the number of visitors expected. Special Event litter bins and recycling bins can be provided by council's contractor at a cost. For further information contact Council's Customer Service Centre. Strategies must be developed incorporating adequate signage to educate the public on the correct use of the recycling bins in order to minimise contamination of the recyclable material.

12. HAZARDOUS WASTE

Generation, storage and disposal of hazardous wastes (refer definition of hazardous waste) require particular attention. Hazardous waste must not be placed in household or commercial waste bins and special arrangements need to be made for its collection and disposal. Some hazardous waste generating activities are required to be licensed by the NSW Environment Protection Authority. Types of hazardous waste are listed in Appendix 3.

APPENDIX 1: WASTE MANAGEMENT PLAN

To facilitate waste minimisation, Council requires the preparation of a Waste Management Plan.

Completing the Waste Management Plan will assist you in identifying the type of waste that will be generated and also assists you in advising Council how you intend to re-use, recycle or dispose of the waste. Demolition and construction waste dockets are to be retained on site so that the location of the receiving facility for recycling or disposal can be confirmed by EPA or Council.

The information provided on the form (and your plans) will be assessed against the objectives *of DCP 2018 Chapter 2.14 –Site Waste Management* (e.g., to maximise re-use and minimise disposal) and the performance criteria for your particular use. The applicable sections of this form must be completed and submitted with all development applications for subdivision and demolition or any construction certificate application to carry out activities requiring the approval of Council.

Waste Management Plan

Information on this form is collected by council for administrative and assessment purposes. It will be used by council staff and other government agencies for the purpose of assessing the application and will be made available for public access. To protect the applicant and owner(s) privacy, personal details are recorded only on the Part B – Application Detail and Owner(s) Consent form which is not published. It is the applicant's responsibility to ensure other documents do not contain any personal or financial information.
If the space is insufficient in the table please provide attachments.

Property details

Address of Property _____

_____

Lot(s) _____ DP(s) _____

Buildings and other structures currently on the site

_____

_____

_____

_____

Brief description of proposal

_____

_____

_____

_____

This development achieves the waste objectives set out in the DCP. The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrate the lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities.

Prepared By
(in Block Letters)

Date

Office Use Only

Application no _____ Receipt no _____

CCO name Date / /

Section 1: Subdivision, Demolition Stage (Site preparation stage)

Materials on Site		**Destination**		
		Re-Use & Recycling		**Disposal**
Type of material	**Estimated Volume (m^3)**	***On-Site*** • Specify proposed re-use or onsite recycling methods • See Guidelines for suggestions	***Off-Site*** • Specify contractors and recycling outlet • See recycling Guide for outlets • See Guidelines for suggestions	• Specify contractor and land site • See Recycling Guide for contracts
Excavation material				
Garden organics / Trees				
Bricks				
Concrete				
Timber				
Roof Tiles				
Metals (please specify)				
Plasterboard				
Floor Coverings				
Fixtures/Fittings				
Glass				
Other (please specify)				
Hazardous Waste e.g. Asbestos (please specify)				
Residual Waste				

Note: Refer to *Development Control Plan 2018 Chapter 2.14 Site Waste Management* and *Waste Control Guidelines* for suggestions for re-use recycling and disposal of waste.

Section 2: Construction Stage

Excess Materials on Site		**Destination**		
		Re-Use & Recycling		**Disposal**
Type of excess material	***Estimated Volume (m3)***	***On-Site*** • Specify proposed re-use or onsite recycling methods • See Guidelines for ssuggestions	***Off-Site*** • Specify contractors and recycling outlet • See recycling Guide for outlets • See Guidelines for suggestions	• Specify contractor and land site • See Recycling Guide for contracts
Excavation material				
Garden organics / Trees				
Bricks				
Concrete				
Timber				
Plasterboard				
Metals (please specify)				
Oth0er (please specify)				
Hazardous Waste e.g. Asbestos (please specify)				
Residual Waste				

Note: Refer to *Development Control Plan 2018 Chapter 2.14 Site Waste Management* and *Waste Control Guidelines* for suggestions for re-use recycling and disposal of waste.

Section 3: Use of Premises

Type of Waste to be Generated	Proposed On-Site Storage and Treatment Facilities	Destination
Please specify: *For example: glass, paper, food waste, organic wastes, off cuts, etc.*	*For example:* • *Waste storage & recycling area* • *Turning circles for trucks, provision of turning bays, proposed movement of collection vehicle through the site.* • *Garbage chute.* • *Compaction equipment*	*For example:* • *Recycling* • *Disposal* • *See Recycling guide for contracts* • *Specify contractor*

Section 4: Ongoing Management

This section provides the ability to supply additional information as to how waste is to be managed during the ongoing operation of the development.

Describe how you intend to ensure ongoing management of waste on-site (e.g.: lease conditions, caretaker / manager on site). For example:

1. Original proprietor to prepare a waste management system addressing waste collection, recycling and disposal for implementation. System to outline expectations and achievable objectives for sorting and separating waste and the on-site management of the waste area.
2. A formal information package to be presented to each new occupant for individual implementation.
3. Staff to be trained in the system with regular six-monthly reviews.
4. Staff to oversee waste system to ensure the area is maintained in a tidy and clean condition and that waste bins are in position for collection on the scheduled dates.
5. All bins in waste area to be clearly marked indicating their use

Section 5: Plan and Drawings

The following checklists are designed to help ensure Waste Management Plans 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 **Do the site plans indicate?**	**Tick** **Yes/No**
Size and location(s) of waste storage areas	☐ Yes ☐ No
Access for waste collection vehicles	☐ Yes ☐ No
Areas to be excavated	☐ Yes ☐ No
Types and numbers of storage bins likely to be required	☐ Yes ☐ No
Signage required to facilitate correct use of storage facilities	☐ Yes ☐ No

Construction **Do the site plans indicate?**	**Tick** **Yes/No**
Size and location(s) of waste storage area(s)	☐ Yes ☐ No
Access for waste collection vehicles	☐ Yes ☐ No
Areas to be excavated	☐ Yes ☐ No
Types and numbers of storage bins likely to be required	☐ Yes ☐ No
Signage required to facilitate correct use of storage facilities	☐ Yes ☐ No

Ongoing Operation Checklist **Do the site plans indicate?**	**Tick** **Yes/No**
Space	
Size and location(s) of waste storage areas	☐ Yes ☐ No
Space provided for access to and the manoeuvring of bins/equipment	☐ Yes ☐ No
Any additional facilities	☐ Yes ☐ No
Access	
Access route(s) to deposit waste in storage room/area	☐ Yes ☐ No
Access route(s) to collect waste from storage room/area	☐ Yes ☐ No
Bin carting grade not to exceed 10% and travel distance not greater than 100m in length	☐ Yes ☐ No
Location of final collection point	☐ Yes ☐ No
Clearance, geometric design and strength of internal access driveway and roads	☐ Yes ☐ No
Direction of traffic flow for internal access driveways and roads	
Amenity	
Aesthetic design of waste storage areas, including being compatible with the main building/s and adequately screened and visually unobtrusive from	☐ Yes ☐ No
Signage – type and location	☐ Yes ☐ No
Construction details of storage rooms/areas (including floor, walls, doors, ceiling design, sewer connection, lighting, ventilation, security, wash down provisions, cross & longitudinal section showing clear internal dimensions between engaged piers and other obstructions, etc)	☐ Yes ☐ No

Note: If you have answered "No" to any of these questions, you will need to address these issues before submitting your final Waste Management Plan.

APPENDIX 2: WASTE/RECYCLING GENERATION RATES

Construction Waste

The following construction waste estimates are applicable for renovations and small home buildings:

- 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

Table 6: Typical Waste Generation Rates

Type of Premises	Waste Generation	Recyclable Material Generation
Multi-Unit Dwelling	120L / unit / week	120L /unit / week
Backpackers' Hostel	40L / occupant / week	20L / occupant space/ week
Boarding house, Guest house	60L / occupant / week	20L/ occupant / week
Food Premises:		
• Butcher	80L / 100 m^2 floor area / day	Variable
• Delicatessen	80L / 100m^2 floor area / day	Variable
• Fish Shop	80L/ 100m^2 floor area /day	Variable
• Greengrocer	240L / 100m^2 / day	120L / 100m^2/day
• Restaurants/ cafes	660L/100m^2 floor area /day	130L /100m^2 floor area/ day
• Supermarket	240L/100m^2 floor area / day	240L / 100m^2 day
• Takeaway	80L / 100m^2 floor area / day	Variable
• Hairdresser	60L / 100m2 floor area / day	Variable
Hotel, Licenced Club, Motel	5L/bed space/day 50L/100m^2 bar area / day	50L / 100m^2 bar area / day or dining areas / day
Offices	10L / 100m^2/day	10L / 100m^2/ day
Shops (non-food sales)less than	50L / 100m^2 floor area / day	25L / 100m^2 floor
Showrooms	40L / 100m^2 floor area /day	10L / 100m^2 floor area / day

Note: 120L/unit/week is equivalent to 0.12m^3 /unit/week

Sources: Adapted from *Waverley Development Control Plan 2010 – Site Waste Minimisation and Management.*

APPENDIX 3 HAZARDOUS WASTE

According to Table 4 of the Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes (EPA) the following materials are classified as hazardous:

1. **Any waste that meets the criteria for assessment as dangerous goods under the Australian Code for the transport of Dangerous Goods by Road and Rail, and categorised as one of the following:**
   a) explosives
   b) gasses (compressed, liquified or dissolved under pressure)
   c) flammable solids (excluding, organic waste and all physical forms of carbon such as activated carbon and graphite),
   d) flammable liquids
   e) substance liable to spontaneous combustion (excluding organic waste and all physical forms of carbon and graphite),
   f) substances which in contact with water emit flammable gases
   g) oxidising agents and organic peroxides
   h) toxic substances
   i) corrosive substances
2. **Pharmaceuticals and poisons being waste generated by activities carried out for business or other commercial purposes and that consist of pharmaceutical or other chemical substances specified in the Poisons List under the Poisons and Therapeutic Goods Act 1966).**
3. **Clinical waste**
4. **Cytotoxic waste**
5. **Sharps waste**
6. **Any radioactive waste, being waste that:**
   a) contains a substance that emits ionising radiation spontaneously, and
   b) consists of, or contains more than, the prescribed activity of any radioactive element listed in Schedule 1 to the Radiation Control Regulation 1993
7. **Any liquid radioactive waste, being waste that:**
   a) contains a substance that emits ionising radiation spontaneously, and
   b) has specific activity ratio or a total activity ratio (as determined in accordance with procedures set out in the Waste Guidelines) that is greater than one.
8. **Any declared chemical waste that:**
   a) is the subject of a chemical control order under the Environmentally Hazardous Chemicals Act 1985, and
   b) is not permitted to be disposed of to a landfill site because of such an order
9. **Quarantine waste.**

Hazardous Waste cannot be placed in the standard waste or recycling bins.

APPENDIX 4: COUNCIL'S BIN TYPES AND SERVICING REQUIREMENTS

Single residential dwellings and multi-unit development (up to 12 units) are provided with:

1. 140 litre waste bin with a red lid. This bin is serviced weekly.
2. 240 litre recycling bin with a yellow lid. This bin is serviced fortnightly.
3. 240 litre garden vegetation bin with a green lid. This bin is serviced fortnightly but on alternate weeks to the recycling bin.

Note: Single residential dwelling west of the Freeway (F3) are not entitled to the 240 litre garden vegetation bin.

Multi-unit residential developments (more than 12 units) are provided with:

1. Bulk bins (660 litre, 1100 litre or 1500 litre) for the storage of non-recyclable waste.

   Size and service frequency depends on unit numbers. Generally 140 litre capacity is allowed per unit. Adequate truck access must be available to service bulk bins.
2. 240 litre waste bins with a red lid. These bins are serviced weekly.
3. 240 litre recycling bins with a yellow lid. These bins are generally serviced fortnightly, but weekly servicing can be arranged subject to site and proposed constraints.
4. 240 litre garden vegetation bins with a green lid. These bins are serviced fortnightly

Commercial and industrial building can be provided with:

1. Bulk bins (660 litre, 1100 litre or 1500 litre) for the storage of non-recyclable waste.

   Size and service frequency depends on unit numbers. Generally 140 litre capacity is allowed per unit. Adequate truck access must be available to service bulk bins on site.
2. 120, 140 and 240 litre waste bins with a red lid. These bins are serviced weekly where kerb side presentation is clear of driveways or other obstructions.
3. 240 litre recycling bins with a yellow lid. These bins are generally serviced fortnightly, but weekly servicing can be arranged where kerb side presentation clear of driveways or other obstructions.
4. 240 litre garden vegetation bins with a green lid. These bins are serviced fortnightly where kerb side presentation is clear of driveways or other obstructions. Bins must not be kept in front of the premises, unless an appropriately screened Waste Storage and Recycling Area is approved and provided.
5. Required parking spaces must not be compromised by storage/servicing of bulk waste bins on site.

Bins are to be placed at the collection point, no earlier than the evening prior to the collection day.

The owner or occupier should remove your bins from the kerbside on the day of collection, once they have been serviced or as soon as practicable after service, but no later than the evening of collection day.

Where on-site collection is essential (e.g. bulk bins are being utilised), Councils contractor will require indemnity against potential damage to access roads.

APPENDIX 5: INDICATIVE BIN SIZES

Mobile Garbage Bins (MGB's)

Bin Type	Height	Depth	Width
140 L bin	940mm	615mm	535mm
240L bin	1080mm	735mm	585mm

Bulk Bins

Bin Type	Height	Depth	Width
660 L bin	1200mm	770mm	1360mm
1.1m^3	1300mm	1100mm	1200mm
1.5m^3	1200mm	1300mm	2000mm

These dimensions are only a guide and differ slightly according to manufacturer, if bins have flat or dome lids and are used with differing lifting devices.

APPENDIX 6: WASTE RECYCING/STORAGE ROOMS/AREAS IN RESIDENTIAL DEVELOPMENTS

Building Code of Australia

Waste/recycling storage rooms must be constructed in accordance with the requirements of the Building Code of Australia (BCA).

Location and Appearance

Waste/recycling storage rooms/areas must be integrated into the design of the overall development and such rooms be located behind the front building line. Rooms in a basement location are not permitted in a building of 3 storeys or less. Materials and finishes visible from outside should be similar in style and quality to the external materials used in the rest of the development.

Waste/recycling storage rooms must be located and designed in a manner that reduces adverse impacts upon the inhabitants of any dwellings on the site and upon neighbouring properties.

The location and design of the room should minimise adverse impacts associated with:
the proximity of the room to any dwellings

- noise generated by any equipment located within the room
- noise generated by the movement of bins into and out of the room
- noise generated by collection vehicles accessing the site
- odours emanating from the room.

Size

Waste/recycling storage rooms/areas must be of adequate size to comfortably accommodate all waste and recycling bins associated with the development.

Layout

The gradient of waste/recycling storage rooms/areas floors for servicing purposes must be 3% or less and the gradient of any associated access ramps must be 1.8 or less sufficiently level enabling access for the purpose of emptying containers can occur in accordance with WorkCover and NSW Occupational Health and Safety requirements.

Waste/recycling storage rooms/areas, containers used for the storage of recyclable materials should be kept separate from (but close to) general waste containers — so that the potential for contamination of recyclable materials is minimised.

Waste Enclosure Requirements for up to 12 Multi-unit Dwellings

Enclosures are to be a maximum dimension of 4m x 2.5m.

The dimensions of the enclosure are based on the following:

- Length = 0.65m x No. of units
- Depth/Width = 1.5m for 1 row and 2.5m for 2 rows between engaged peers or other obstructions within the enclosure

Residential developments up to **12** units may store their bins in their garage or courtyard or provide individual or shared bins in an enclosure subject to sufficient, suitable kerb side presentation at the front of the property, clear of driveways or other obstructions. No encroachment for MGB presentation beyond the boundaries of the property permitted.

Internal resident access to the enclosure shall have a gradient not exceeding 10% and should not exceed 100m in length.

Access between the bin enclosure and the kerb side is to be free of obstructions.

Waste enclosure requirements for Multi-unit Dwellings greater than 12 units:

Enclosure dimensions for the following bulk bin types

Bin Type	Depth/Width	Length
1.1m3	1.35 x No. of rows plus No. of 1m corridor spaces	1.45 x No. of bins
1.5m3	1.55 x No. of rows plus No. of 1m corridor spaces	2.25 x No. of bins

Indemnity

Council will require an indemnity against claims for loss or damage to the pavement or other driving surfaces against liabilities, losses, damages and any other demands arising from any on site collection service.

This will be submitted to Council prior to the issue of an occupational certificate together with the creation of an instrument.

APPENDIX 7: GARBAGE CHUTES

Development exceeding three storeys must be provided with an acceptable method of transporting waste from each level to a garbage and recycling room.

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

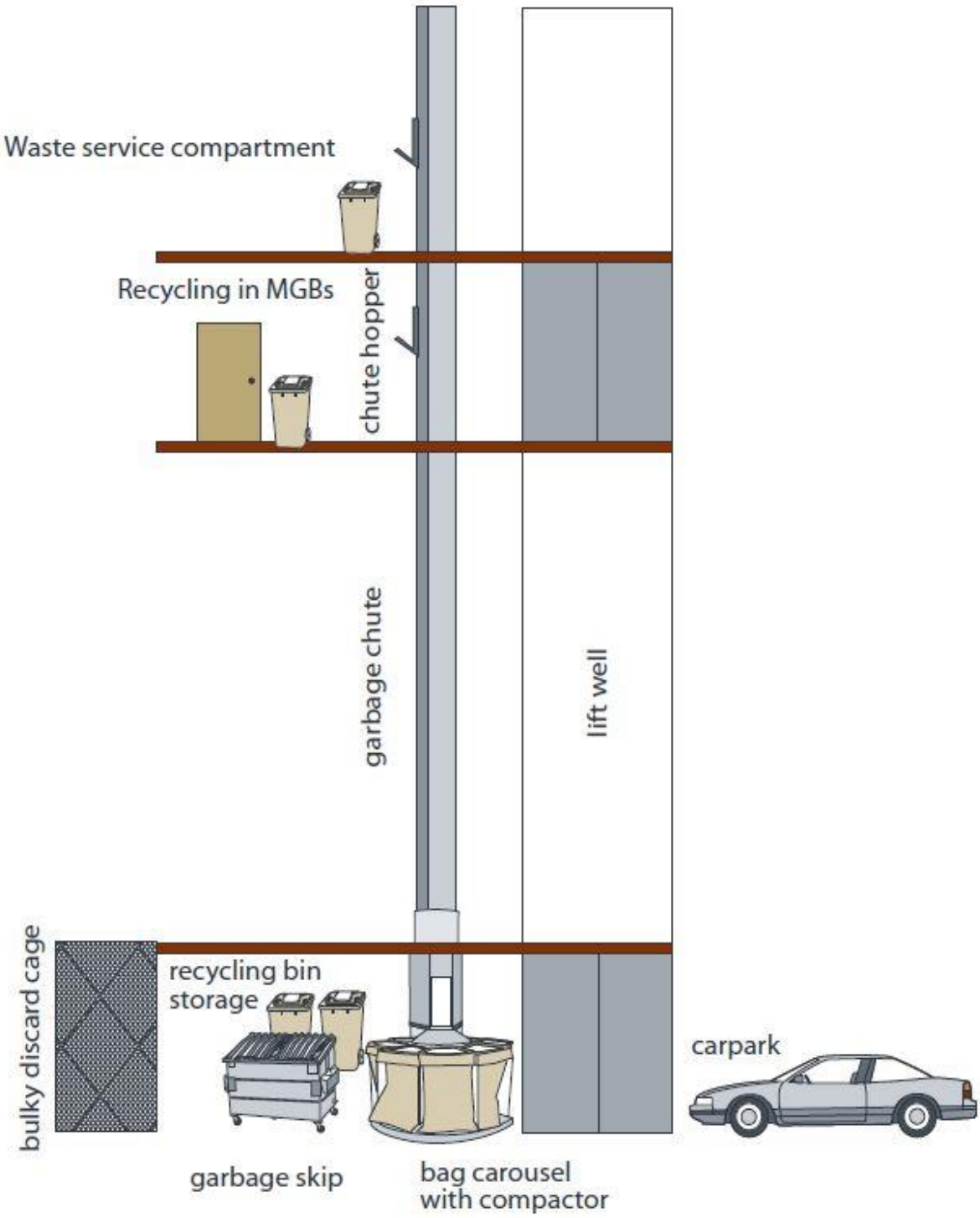

Figure 10: Example of Interim Storage Area and Chute System

APPENDIX 8: COMMERCIAL/INDUSTRIAL WASTE AND RECYCLING STORAGE AREAS

Building Code of Australia

- Waste/recycling storage areas must be constructed in accordance with the requirements of the Building Code of Australia (BCA).

Location and appearance

- 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.
- Waste/recycling storage areas must be located and designed in a manner that reduces adverse impacts upon neighbouring properties and the streetscape. The location and design of the areas should minimise adverse impacts associated with:
  - the proximity of the area to dwellings
  - the visibility of the area
  - noise generated by any equipment located within the area
  - noise generated by the movement of bins into and out of the area
  - noise generated by collection vehicles accessing the site; and
  - odours emanating from the area.

Size

- Waste/recycling storage areas must be of adequate size to comfortably accommodate all waste and recycling bins associated with the development.
- Waste/recycling storage areas must be able to accommodate separate general waste bins and recycling bins which are of sufficient volume to contain the quantity of waste generated (at the rate described in Appendix 2) between collections.

Layout

- 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.
- Within waste/recycling storage areas, containers used for the storage of recyclable materials should be kept separate from (but close to) general waste containers — so that the potential for contamination of recyclable materials is minimised.

Access: waste/recycling collection

- 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 and so 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.
- Servicing arrangements for the emptying of bins must be compatible with the operation of any other loading/unloading facilities on-site.
- Access for the purpose of emptying waste/recycling storage containers must be able to occur in accordance with WorkCover NSW Occupational Health and Safety requirements.

Access: general

- In commercial development, public buildings and industrial development, there must be convenient access from each tenancy to the waste/recycling storage area(s). There must be step-free access between the point at which bins are collected/emptied and the waste/recycling storage area(s).
- Arrangements must be in place so that the waste/recycling storage area is not accessible to the general public.
- Vermin must be prevented from entering the waste/recycling storage area.

Surfaces

- 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.

Doors/gates

- 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 open from both inside and outside the storage area and must be wide enough to allow for the easy passage of waste/recycling containers.

Services

- Waste/recycling storage areas may 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.
- The floor must be graded so that any water is directed to a water authority approved drainage connection located upon the site. Prior approval from Council is required before connection to Council's sewer system.

Signage

- Waste/recycling storage areas must include signage that clearly describes the types of materials that can be deposited into recycling bins and general garbage bins.

Management

- Arrangements must be in place for the regular maintenance and cleaning of waste/recycling storage areas. Waste/recycling containers must only be washed in an area which drains to a water authority approved drainage connection. Prior approval from Council is required before connection to Council's sewer system.
- The *Better Practice Guide for Waste Management in Multi-Unit Dwellings* gives detailed information about waste recycling/storage rooms and facilities. The Guide was substantially reviewed in 2007 and is available on the Office of Environment and Heritage NSW website (www.environment.nsw.gov.au). Further updates will be published as further information from social research and waste stream audits becomes available.

APPENDIX 9: WASTE MANAGEMENT SERVICING

Access and Engineering

In meeting the service requirements for a development greater than **12** units access and engineering requirements will be met by adopting the Australian Standards AS2890.1 – 2004 and AS2890.2.2002, as amended.

For developments over **12** units a waste truck will enter and exit a development in a forward manner to service bulk waste and recycling bins from the enclosure. The applicant needs to demonstrate that there is sufficient clearance free of any obstructions including adjacent buildings, overhanging trees and landscaping. The applicant needs to demonstrate that the servicing grades are satisfactory.

Indemnity

Council will require an indemnity against claims for loss or damage to the pavement or other driving surfaces against liabilities, losses, damages and any other demands arising from any on site collection service.

This will be provided prior to the issue of an occupational certificate together with the creation of an instrument.

Demonstrating access

A truck turning template needs to be used to trace the SWEPT truck turning path for a HRV Council truck having a turning radius of 12.5m. The AUSTROADS template as shown in Figure 11 will enable this requirement to be achieved.

Intermediate collection points

Intermediate collection points may be needed for larger developments where residents have to walk more than 70m to unload their waste, recyclables or garden organic material. For this to be managed properly, a person such as a janitor or caretaker is required to collect this material and take it to the major servicing area.

Special equipment may be required, in which case qualified staff need to be employed to address **WH&S** issues e.g. fork lift equipment to lift bins.

Uses for the truck turning template

The traced truck path may also be used for situations such as:

- Entry into/out of the development showing entrance splays, external road, connection etc.
- point turns
- Truck manoeuvring within a development
- Cul-de-sac design

Grades

Gradients must be 3% or less for the following:

- Floor within the enclosure
- For bulk bin roll out pads
- Truck servicing grades comprising a distance of 13m which includes the truck length and the bulk bin manoeuvring area

Ramp gradients will be 1 in 8 or less and meet the requirements of:

- AS2890.2 including bottoming out

Internal road widths

Internal roads will be wide enough to enable cars to pass a HRV servicing waste.

Internal road strength

The internal road will be of industrial road strength capable of withstanding a loading of at least 22.5 tonnes garbage truck.

Road surface

The internal road surface travelled by the waste truck will be of concrete construction to minimise tyre scuffing of a turning waste truck.

Vertical height restrictions

A clear internal vertical height of 4m is required that is free of obstructions including roof piping or electrical wiring, road humps and any other obstructions restricting waste truck movement.

Contingency plans

The applicant will provide written advice on any contingency plans should there be a breakdown of transporting equipment e.g. a replacement fork lift alternatives where internal lifts are provided, garbage chutes etc.

Other matters

Movement of the bulk bins

If bulk bins are to be moved from one area to another then advice on the method of transporting these bins is to be provided e.g. tractor, fork lift, lifts etc

Security gates

If the truck needs to enter the development then truck access through the security gate needs to be arranged with the contractor prior to occupation of the development e.g. keys or security codes.

WH&S Requirements

In assessing a development application Council has a duty to care in ensuring that WH&S concerns are addressed. Satisfactory planning is needed to minimise the risk of personal injury or damage to public property when addressing common law and regulative standards or policies. Some of these are listed below.

WHS Act 2011

WHS Regulations 2011

Collection of Domestic Waste – Code of Practice

Matters relating to safety, health and indemnity considerations include, but are not limited to toe following:

Satisfactory sight distance

A satisfactory sight distance is necessary to minimise the potential of injury to pedestrians from contact with on-coming vehicles. Effective sight distance standards need to comply with AS 2890.2.

Some acceptable solutions to minimising risk include introducing:

- Mirrors
- Internal traffic signals
- Effective signage

Manoeuvring of bins

The manual manoeuvring of bins may cause injury if bin lifting is required or excessive heavy bulk bins are pushed/hauled. Some of the acceptable solutions are as follows:

Maximum bulk bin size: The maximum bulk bin size used will be 1.5m3 or less to minimise personal injury associated with pushing/dragging bulk bins.

Wheel in wheel back service: The standards addressing obstructions, slope and distance need to meet the criteria discussed for **12 units** or less.

Lifting of bins: Mechanical bin lifters may need to be used for lifting waste/recyclable mobile bins into the bulk bins.

Transporting bulk bins

The transporting of bulk bins excessive distances or from one level grade to another need to be performed using appropriate equipment e.g. forklift, tractor etc. Where bulk bins are transferred to a different floor level then a special lift may need to be providing and contingency plans provided for any potential breakdown.

Health

Provision for ventilation within a waste enclosure is needed to plan against unsatisfactory waste odours.

Indemnity

Council will require an indemnity against claims for loss or damage to the pavement or other driving surfaces against liabilities, losses, damages and any other demands arising from any on site collection service. This will be provided prior to the issue of an occupational certificate together with the creation of an instrument.

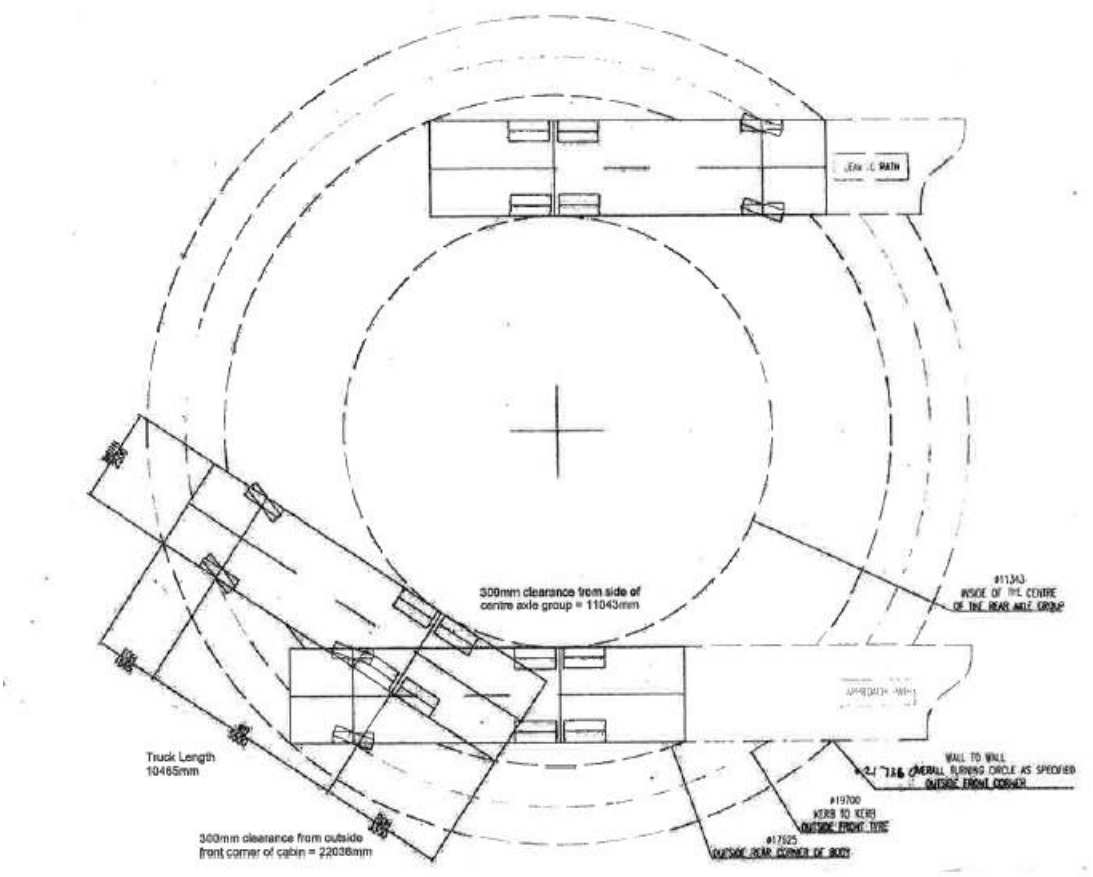

Figure 11: Turning Circle for Heavy Rigid Vehicle (Not to Scale)