

# MULTI-UNIT DWELLINGS WASTE MANAGEMENT GUIDELINES

## BACKGROUND

Council is responsible for the collection and disposal of domestic waste within the Penrith Local Government Area (LGA).

Waste management practices of all proposed developments need to consider resident and public amenity and safety at all stages of the waste management process, including storage, transfer and collection.

## 1. INTRODUCTION: DESIGN PRINCIPLES

### 1.1 WASTE MANAGEMENT CONSIDERATIONS

It is essential that new **multi-unit dwelling** developments select and provide a waste management system that is responsive to the development's needs and can be integrated into Council's standard waste management service.

To ensure new developments can access Council's waste service in an efficient and effective manner, the following must be taken into consideration in the assessment of development applications:

- Waste management system selection ensures that it is safe and convenient for resident use.
- Site planning of the development ensures amenity and safety of all residents and other users (including caretakers, cleaners and Council's waste collection contractors) at all stages of the waste management process.
- Adequate waste storage area(s) are provided within the development site to store all required waste bins.
- Site planning is responsive to Council's servicing requirements and provides safe and efficient access to the nominated collection point.

### 1.2 UNDERSTANDING COUNCIL'S WASTE SERVICE

New developments must provide future residents with access to waste and recycling services.

The design of the proposed developments must consider how the waste management systems will be integrated within Council's existing standard waste collection service.

## 1.3 DEVELOPMENT CLASSIFICATION

**Multi-Unit Dwelling:** the use of a premises that contains four or more dwellings (attached or detached) on one lot of land

### 1.3.1 Alternative Classifications

For developments that contain less than four dwellings on one lot of land, the waste collection infrastructure is to be provided in accordance with the '*Residential Subdivisions Waste Management Guideline*' document.

For developments that comprise of three or more storeys, integrated on-site waste collection and supporting infrastructure is to be provided in accordance with the '*Residential Flat Building Waste Management Guideline*' document.

## 2. WASTE COLLECTION

### 2.1 BIN ALLOCATION

Council's 'Collect and Return' service provided within Multi-Unit Dwellings uses 240L bins for residual and recycling waste streams.

Bin Size and Type	Height (mm)	Length (mm)	Width (mm)
240L	1100	740	600

Table 1: Standard Bin Size and Dimensions



Figure 1: Image of typical 240L residual and recycling bins

### 2.2 COLLECT AND RETURN SERVICE

Council's 'Collect and Return' service involves the 10.5m heavy rigid waste collection vehicle (section 4.1) parking parallel to kerbside. The driver enters the site on foot and collects the respective 240L bins (residual or recycling). The bins are wheeled to the rear of the vehicle to be emptied. Once emptied the bins are placed back within the waste collection area and the driver leaves the development.

## 2.3 WASTE GENERATION RATES

The number of bins required for the development will influence the size of the waste storage area and the collection point required for developments. The following ratio (table 2) is used to determine the bin for development:

Weekly Waste Generation Volumes (L)	240L Bin Allocation	Collection Frequency
Residual	2 dwellings per bin	Twice Weekly
Recycling	2 dwellings per bin	Once Weekly

**Table 2: Waste generation rates for respective bin allocations**

**NOTE:** All bins allocations are rounded up to the next whole number (for example the calculation of 4.1 bins will be rounded to 5 bins).

### 2.3.1 Boarding Houses

For boarding house developments, a bin generation rate of 75% will be applied to the waste generation calculation outlined within table 2 above. All on-site waste collection infrastructure outlined within sections 2.4.1 and 2.4.2 is required to be integrated wholly within the development's built form.

**Note:** For boarding house developments that comprise of three or more storeys, integrated on-site waste collection and supporting infrastructure is to be provided in accordance with the '*Residential Flat Building Waste Management Guideline*' document.

## 2.4 ON-SITE WASTE COLLECTION INFRASTRUCTURE

### 2.4.1 Communal Waste Collection Area

The following must be implemented within Multi-Unit Housing developments for Council to perform a collect and return service:

- The structure is to be large enough to accommodate the entire fleet of bins assigned to the development (refer to section 2.3).
- The structure is to be effectively integrated within the developments built form and landscape design to enhance street presentation and resident amenity.
- A minimum 1m front and side setback is required to permit adequate separation and facilitate the implementation of a landscape treatment.
- The structure is to be constructed to allow physical separation from bulky goods area.
- Separate unobstructed access is required to the communal waste collection area.
- The floor is to be constructed of concrete to a minimum thickness of 75mm, non-slip and a smooth even surface covered at all intersections.
- Floor is to be graded to a central drainage point connected to the sewer if roofed or discharged onsite if the collection area is un-roofed.
- The structure is to be provided with an adequate supply of water through a centralized mixing valve with hose cock.
- The structure is to be waterproofed to permit the use of wash facilities.

- The structure is to provide a minimum doorway width of 1.2m.
- The service path leading to the structure and kerb is to be 1.2m wide, concrete and remain parallel to the contours at all points with a maximum gradient of 1:24.
- The structure to have a maximum screen height of 1.4m above natural ground level.
- The bins to permanently stored within the structure parallel to the walls
- The structure is to be located within 10m of the kerb.
- Appropriate vegetation to be considered to enhance the amenity of the proposed structures through the use of hedges and shrubs.
- If the structure has a door, a latch will need to be provided to hold the door in an open position during collection.
- If the structure is integrated within the building's built form, a minimum 2.7m unobstructed internal room height is required in accordance with the Building Code of Australia.
- If the structure is integrated within the building's built form, adequate lighting and natural/mechanical ventilation is required in accordance with the Building Code of Australia.

Model Waste Collection Area configurations are provided within section 2.4.1.1 and 2.4.1.2.

#### 2.4.1.1 Rectangular Waste Collection Area Model Configuration

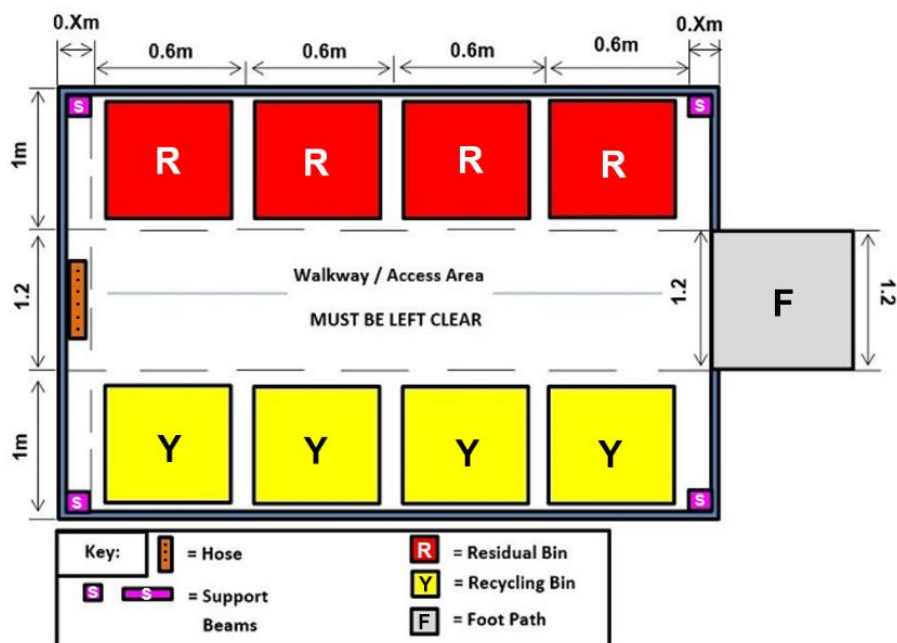


Figure 2: Model configuration of a double sided communal waste collection area

### 2.4.1.2 Parallel Waste Collection Area Model Configuration

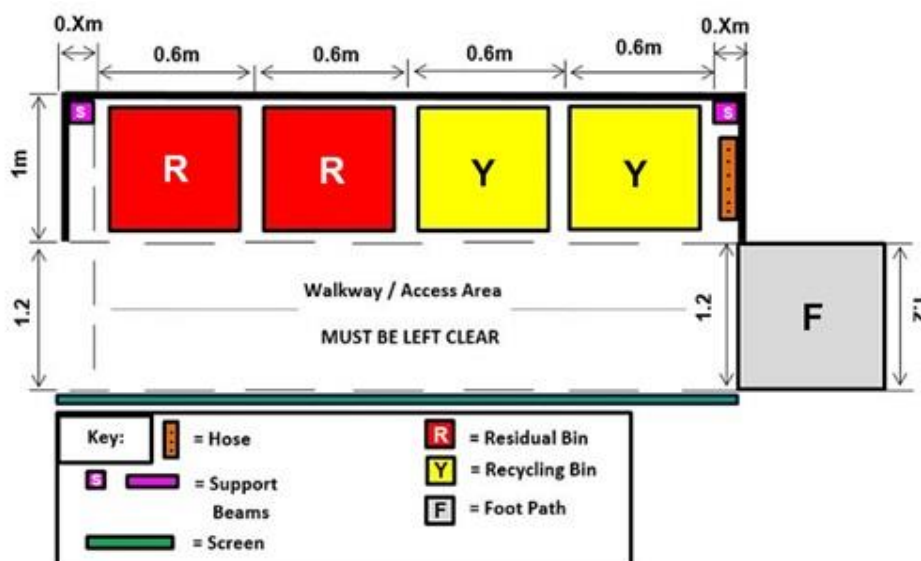


Figure 3: Model configuration of a single sided communal waste collection area

**NOTE:** All dimensions provided diagrams 4.1.1.1 and 4.1.1.2 are the minimum unobstructed internal dimensions required.

### 2.4.2 Bulky Goods Collection Area

Each development is required to provide a bulky goods collection area. The structure is to allow the storage of mattresses, furniture and other goods to be collected by Council's waste collection contractors. Council provides a bulky goods collection upon booking by residents.

The following must be implemented within Multi-Unit Housing developments for Council to perform a bulky waste collection service:

- The structure is to be **Xm<sup>2</sup>** (refer to section 2.4.2.2)
  - A minimum area of 2.5m<sup>2</sup> is to be provided
- The structure is required to be effectively integrated within the built form and landscape design to enhance street presentation and resident amenity
- A minimum 1m front and side setback is required to permit adequate separation and facilitate the implementation of a landscape treatment
- The floor is to be constructed of concrete to a minimum thickness of 75mm, non-slip and a smooth even surface covered at all intersections
- Floor is to be graded to a central drainage point connected to the sewer if roofed or discharged onsite if the collection area is un-roofed
- The structure is to be provided with an adequate supply of water through a centralized mixing valve with hose cock
- The structure is to be waterproofed to permit the use of wash facilities
- The structure is to be screened from the road and residents with all remaining sides to remain open and unobstructed
- The structure is to be constructed to allow physical separation from the communal waste collection area
- Separate unobstructed access is required to the bulky goods collection area

- The service path leading to the structure and kerb is to be 1.2m wide, concrete and remain parallel to the contours at all points with a maximum gradient of 1:24
- The structure to have a maximum screen height of 1.4m above natural ground level
- The structure is to be located within 10m of the kerb
- Appropriate vegetation to be considered to enhance the amenity of the proposed structures through the use of hedges and shrubs
- If the structure has a door, a latch will need to be provided to hold the door in an open position during collection
- If the structure is integrated within the building's built form, a minimum 2.7m unobstructed internal room height is required in accordance with the Building Code of Australia
- If the structure is integrated within the building's built form, adequate lighting and natural/mechanical ventilation is required in accordance with the Building Code of Australia.

#### 2.4.2.1 Bulky Goods Collection Area Model Configuration

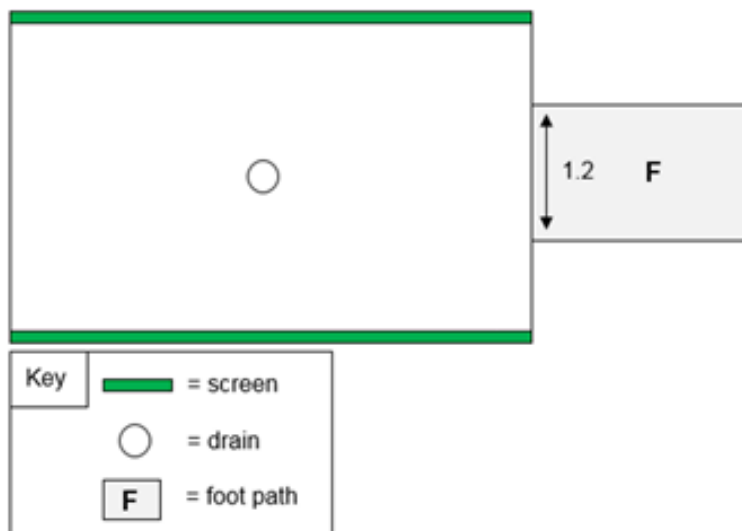


Figure 4: Model configuration of a bulky goods collection area

#### 2.4.2.2 Bulky Goods Collection Area Calculation

The size of the bulky goods collection area for developments of 17 or more dwellings is based upon the following calculation:

$$\text{Bulky Goods Area (m}^2\text{)} = \left[ \text{Number of Units} \times 8 \right] \div 52$$

**Note:** All calculations are rounded up to next whole number (ie. 4.1m<sup>2</sup> = 5m<sup>2</sup>). Boarding house developments to provide an additional 1m<sup>2</sup> of storage area added onto rounded value outlined in the calculation above (section 2.4.2.2).

#### 2.4.4 Indemnity Agreement

Prior to the issue of any Occupation Certificate, all Multi Unit Dwellings are required to enter a formal agreement with Penrith City Council for the utilisation of Council's Waste Collection Service. This is to include Council being provided with indemnity against claims for loss or damage.

**Note:** By entering into an agreement with Penrith City Council for waste collection, the development will be required to operate in full compliance with Council's Waste collection and Processing Contracts for Standard Waste Collection. The provision of Council's waste collection service will not commence until formalisation of the agreement.

Download the [On-site Waste Collection Application](#) from Council's website.

**Note:** The original form will need to be signed and submitted to Council.

### 3. LARGER MULTI-UNIT DEVELOPMENTS

#### 3.1 DEVELOPMENTS REQUIRING ON-SITE COLLECTION

There may be instances due to the scale and density of the development that an improved planning and waste management outcome is achieved through the implementation of on-site waste collection. This will require Council's 9.7 or 10.5m (section 4.1 & 4.2) waste collection vehicle to enter the property to perform waste collection.

The integrated on-site waste collection infrastructure required to service the development is to be provided in accordance with section the '*Residential Flat Building Waste Management Guideline*' document.

### 4. WASTE COLLECTION VEHICLES

#### 4.1 COUNCIL'S 10.5M HEAVY RIGID COLLECTION VEHICLE

The following dimensions are provided for a standard heavy rigid vehicle as identified in Australian Standard 2890.2.

Vehicle Classifications	Heavy Rigid Vehicle Dimensions
Overall Length (m)	10.5
Operational Length (m)	12.5
Design Width (m)	2.8
Design Height (m)	3.7
Swept Circle (m)	22.5
Clearance (travel height) (m)	4.5
Roadway/ramp grade (max)	1:6.5 (15.4%)
Rate of change of grade (max)	1:16 (6.25%) in 7.0m of travel
Gross Weight (max tonnes)	28.0
Front Chassis Clearance	13°
Rear Chassis Clearance	16°

Table 3: Standard dimensions in accordance with AS 2890.2

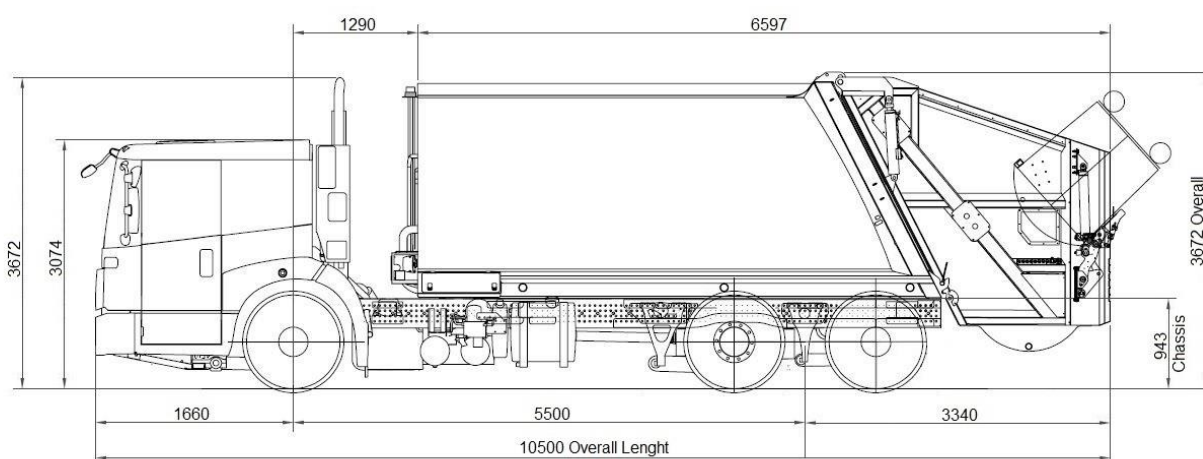


Figure 5: 10.5m Heavy Rigid Waste Collection Vehicle specifications



## 4.2 COUNCIL'S 9.7M HEAVY RIGID COLLECTION VEHICLE

The following dimensions are provided for a standard heavy rigid vehicle as identified in Australian Standard 2890.2.

Vehicle Class:	Heavy Rigid Vehicle Dimensions
Overall Length (m)	9.7
Operational Length (m)	11.7
Design Width (m)	2.8
Design Height (m)	3.1
Swept Circle (m)	17.0
Clearance (travel height) (m)	3.5
Roadway/ramp grade (max)	1:6.5 (15.4%)
Rate of change of grade (max)	1:12 (8.3%) in 4.0m of travel
Gross Weight (max tonnes)	28.0
Front Chassis Clearance	13°
Rear Chassis Clearance	16°

Table 4: Standard dimensions in accordance with AS 2890.2

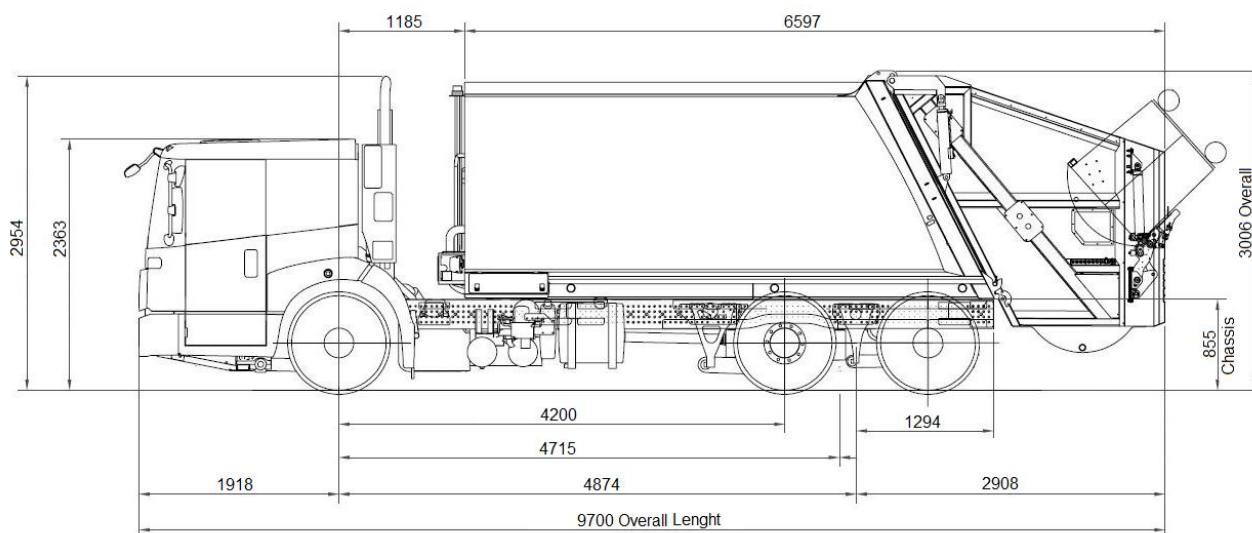


Figure 6: 9.7m Heavy Rigid Waste Collection Vehicle specifications

## 5. GLOSSARY

The following are standard terms used within this document:

<b>Term</b>	<b>Definition</b>
<b>Collect and Return service</b>	Council's waste collection service where residents are provided with communal waste bins. For collection the contractors enter the site and empty each bin. The bins are replaced back in the communal waste room after collection. This service is conducted twice weekly for residual waste and once weekly for recycling.
<b>Collection Point</b>	The nominated point from which waste and recycling is collected by Council's waste service.
<b>Waste Collection Area</b>	Communal room provided within the development site that stores all required waste and recycling bins.
<b>Heavy Rigid Vehicle</b>	Medium Rigid Vehicle is defined as per Australian Standard 2890.2
<b>Mobile Garbage Bins</b>	Small bins that have two wheels so can only be moved forwards and backwards (not sideways).