

Guidelines for waste management plans 2021

A city that cares for the environment

Environmental sustainability is the basis of all Future Melbourne goals. It requires current generations to choose how they meet their needs without compromising the ability of future generations to be able to do the same.

Acknowledgement of Traditional Owners

The City of Melbourne respectfully acknowledges the Traditional Owners of the land, the Boon Wurrung and Woiwurrung (Wurundjeri) peoples of the Kulin Nation and pays respect to their Elders, past and present.

Contents

[Residential waste management plans 6](#_Toc77345358)

[1. Staged development or occupancy 6](#_Toc77345359)

[Tenants to occupy the development in stages 6](#_Toc77345360)

[Development is precinct based, occupies adjoining lots and/or is to be built/developed in stages 6](#_Toc77345361)

[2. Land use details 6](#_Toc77345362)

[3. Waste generation 6](#_Toc77345363)

[4. Waste Systems 7](#_Toc77345364)

[5. Bin quantity, size and colour 8](#_Toc77345365)

[Waste compactors 8](#_Toc77345366)

[6. Collection frequency 9](#_Toc77345367)

[7. Bin storage 10](#_Toc77345368)

[8. Collection location 10](#_Toc77345369)

[On-site collections 10](#_Toc77345370)

[On-street collections 11](#_Toc77345371)

[9. Additional waste requirements 12](#_Toc77345372)

[e-waste 12](#_Toc77345373)

[10. Scaled waste management drawings 13](#_Toc77345374)

[11. Collection contractors 14](#_Toc77345375)

[12. Signage 14](#_Toc77345376)

[Commercial waste management plans 14](#_Toc77345377)

[1. Land use details 14](#_Toc77345378)

[2. Waste generation 15](#_Toc77345379)

[3. Waste systems 16](#_Toc77345380)

[Bins and skips 16](#_Toc77345381)

[Compactors 16](#_Toc77345382)

[Public Place compactors and recycling hubs 17](#_Toc77345383)

[Automation 17](#_Toc77345384)

[Balers 17](#_Toc77345385)

[Glass crushers 17](#_Toc77345386)

[4. Bin quantity, size and colour 18](#_Toc77345387)

[5. Collection frequency 18](#_Toc77345388)

[6. Bin storage room 18](#_Toc77345389)

[7. Collection location 19](#_Toc77345390)

[8. Additional waste requirements 20](#_Toc77345391)

[Hard waste 20](#_Toc77345392)

[e-waste 20](#_Toc77345393)

[9. Scaled waste management drawings 21](#_Toc77345394)

[10. Collection contractors 21](#_Toc77345395)

[11. Signage 21](#_Toc77345396)

Disclaimer

This report is provided for information and it does not purport to be complete. While care has been taken to ensure the content in the report is accurate, we cannot guarantee it is without flaw of any kind. There may be errors and omissions or it may not be wholly appropriate for your particular purposes. In addition, the publication is a snapshot in time based on historic information which is liable to change. The City of Melbourne accepts no responsibility and disclaims all liability for any error, loss or other consequence which may arise from you relying on any information contained in this report.

To find out how you can participate in the decision-making process for City of Melbourne’s current and future initiatives, visit melbourne.vic.gov.au/participate

These guidelines are for planning permit applicants in the City of Melbourne (CoM).

City of Melbourne has set a target to divert 90 percent of waste from landfill by 2030 and a 20 percent reduction in household waste per capita between 2019 and 2030. Moving towards a circular economy, which eliminates waste and reuses resources, will help keep Melbourne a sustainable, beautiful, safe and liveable city. It will divert materials from landfill, minimise extraction of natural resources, and reduce carbon emissions. Improving building design is critical to improving resource recovery, easing congestion, reducing noise and odour pollution and keeping our city clean. It is up to everyone in the city - residents, workers, developers, visitors and businesses – to work towards zero waste.

In 2019 the City of Melbourne released the [Waste and Resource Recovery Strategy 2030[[1]](#footnote-1),](https://www.melbourne.vic.gov.au/about-melbourne/sustainability/pages/waste-and-resource-recovery-strategy-2030.aspx) which outlines a plan to reduce the reliance of storage of bins in the public realm. To do so, we will encourage new developments to incorporate innovative, communal waste management facilities (hubs) that can be accessed by both occupants of the development, residents and businesses in the immediate vicinity. The City of Melbourne is currently investigating technology best suited to allow for this transition, and encourages developers to look at opportunities to implement this significant transformation in managing waste and resource recovery.

In 2020, the State Government released the [Recycling Victoria policy](https://www.vic.gov.au/sites/default/files/2020-02/Recycling%20Victoria%20A%20new%20economy.pdf)[[2]](#footnote-2) which sets out minimum standards for residential waste, and a timeline for implementation. This policy has set a target to divert 80 percent of waste from landfill by 2030, with an interim target of 72 percent by 2025, and a 15 percent reduction in total waste generation per capita between 2020 and 2030. These guidelines outline what the future requirements for residential and commercial buildings will be, to help support planners to design around the future requirements. Please note that the new policy may impact the design of new buildings and should be carefully considered.

It is recommended that to ensure compliance with this State Policy, developers maximise space allocated for waste management, ensuring appropriate streams of seperated waste and recycling is planned for. Developers to note the existing requirements with the State Policy for a four bin system for residential households by 2030, separating food waste and glass from the existing two bin system.

The overarching goal of this work is to improve amenity, minimising bins in the public realm, and improving sustainability outcomes for the City.

This guide will help you prepare a plan to manage the waste and resource recovery needs of your development. It includes sections for residential developments and commercial developments. Mixed use developments will need to refer to both sections.

Your Waste Management Plan (WMP) must include details of:

1. staged development or occupancy
2. land use type
3. waste generation
4. waste systems
5. bin quantity, size and colour
6. collection frequency
7. bin storage
8. collection location
9. scaled waste management drawings
10. collection contractors
11. additional waste requirements and
12. signage

If the WMP is not the first submission to Council, please include a summary of the changes that have been made to the revision.

# Residential waste management plans

Residential planning applications with less than six individually rateable apartments or townhouses can use templates prepared by the City of Melbourne. Larger scale developments require a more detailed WMP that is based on these 2021 Waste Guidelines.

[Waste Management Plan templates](https://www.melbourne.vic.gov.au/pages/search-results.aspx?k=waste%20management%20plan%20template&type=docs)[[3]](#footnote-3) are available online or on request.

What to include:

## 1. Staged development or occupancy

### Tenants to occupy the development in stages

If a development is to be released/occupied in stages, a WMP is required to be submitted for each of the stages should there be interim requirements for waste management.

### Development is precinct based, occupies adjoining lots and/or is to be built/developed in stages

If adjacent lots are to be developed by one developer, City of Melbourne requires each WMP to consider waste requirements for adjoining lots. Adjoining lots should adopt a combined waste management strategy where possible.

## 2. Land use details

The City of Melbourne requires a summary of the proposed land use. This must include:

* land use zoning
* number of residential apartments by size (studio, one, two, three or more bedrooms)
* number of floors
* Intended use of development (residential, commercial or mixed use).

## 3. Waste generation

The City of Melbourne’s residential waste entitlement per individual dwelling is 120 litres per week of garbage, commingled recycling and organics. These needs of residents in apartments are typically lower than this. The following generation rates will help determine the number and types of bins the development will need.

Table 1 – Weekly residential waste generation rates

|  |  |  |  |
| --- | --- | --- | --- |
| **DWELLING SIZE**  | **GARBAGE** | **COMMINGLED RECYCLING** | **ORGANICS** |
| Individual dwelling | 120L | 120L\* | 120L\*\* |
| 3 bedroom apartment or greater | 90L | 120L | 30L |
| 2 bedroom apartment | 75L | 100L | 25L |
| 1 bedroom or studio apartment | 60L | 80L | 20L |

\*Individual dwellings will receive a 240L recycling bin which will be collected fortnightly. \*\*Dwellings entitled to individual bins are entitled to a dedicated 120L organics bin. The City of Melbourne only uses 120L bins for organics waste.

The City of Melbourne does not currently provide a separate glass collection service. Until such time that Council provides this service, it is at the discretion of the applicant to arrange for the private collection of glass at the development’s expense. If a private glass collection service is to be provided, recycling generation rates can be selected from either Table 1 or Table 2

Table 2 – Weekly residential waste generation rates for properties with glass services

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **DWELLING SIZE** | **GARBAGE** | **COMMINGLED RECYCLING** | **ORGANICS** | **GLASS** |
| Individual dwelling | 120L | 120L\* | 120L | 30L |
| 3 bedroom apartment or greater  | 90L | 84L | 30L | 36L |
| 2 bedroom apartment | 75L | 70L | 25L | 30L |
| 1 bedroom or studio apartment | 60L | 56L | 20L | 24L |

\*Individual dwellings will receive a 240L recycling bin which will be collected fortnightly.

## 4. Waste Systems

Details of the entire waste system must be provided. This includes in-apartment source separation systems, chutes, carousels, in chute compaction equipment (a compaction ratio of 2:1 will be applied), transportable compactors, bin lifters and tugs or towing devices.

Developers must ensure that it is at least as easy to dispose of recyclable materials, organics (and glass material when the service is provided) as it is to dispose of garbage.

Developments over six storeys must use twin chute technology with openings on each floor to enable disposal of both garbage and commingled recycling. Chutes must be clearly marked at every access point so that residents can easily distinguish between the garbage and commingled recycling chutes.

If the chutes are not linear, all deflection angles must be specified.

Recycling stations are required within the building for storage and collection of large cardboard, hard waste (including e-waste) and charity goods must be taken to drop-off points within the building to reduce likelihood of blockage in chutes.

Termination of chutes into mobile bins (if not fully enclosed) are required to have skirting, or other equivalent system, to reduce any materials leaving the bin on impact.

Where chute systems are installed, the City of Melbourne requires bins to have reinforced bases for bin longevity.

Innovative technologies and management of additional waste streams is encouraged and will be considered on a case by case basis by the City of Melbourne.

## 5. Bin quantity, size and colour

Your WMP must include the number of bins and their sizes. Large bins must be provided, in place of multiple smaller bins to decrease the number of bins stored/collected, reduce waste vehicle movements and the time taken for collection.

The City of Melbourne’s standard bin sizes are listed below. The City of Melbourne provides all commingled recycling bins regardless of size; it also provides 120L and 240L garbage bins and 120L organics bins. Larger size garbage bins must be provided by developers.

When designing drop-off points and bin rooms, standard bin dimensions can be used. However, check with suppliers as dimensions may vary. Space within the storage location must allow for bin rotation and safe service provision.

Table 3 – Standard bin sizes

|  |  |  |
| --- | --- | --- |
| **BIN** | **COLOUR** | **SIZE** |
| Garbage | Red lid and black body | 1100L or 660L (provided by developer) 240L or 120L |
| Commingled recycling | Yellow lid and black body | 1100L , 660L, 360L, 240L or 120L |
| Food and organics | Lime green lid and black body | 120L |
| Glass | Purple lid and black body | 120L or 80L |

Table 4 – Standard bin dimensions

|  |  |  |  |
| --- | --- | --- | --- |
| **TYPE (L)** | **WIDTH (M)** | **DEPTH (M)** | **HEIGHT (M)** |
| 120 | 0.5 | 0.6 | 1.0 |
| 240 | 0.6 | 0.8 | 1.1 |
| 360 | 0.7 | 0.9 | 1.1 |
| 660 | 1.4 | 0.8 | 1.2 |
| 1100 | 1.4 | 1.3 | 1.5 |

A minimum corridor and door width of 1.5m is required when using 660L and 1,100L bins.

### Waste compactors

The City of Melbourne collects transportable hook lift compactors. Developments with 250 apartments OR a total stream volume of 25,000 litres or more of garbage and/or 25,000 litres or more of commingled recycling per week are required to provide a compactor/s for each waste stream. Compactors should be designed to hold at least 1 week’s residential garbage or one week’s commingled recycling or multiple thereof.

If the development is generating over 25,000L but less than 40,000L per week of garbage or commingled recycling but can manage waste servicing utilising three or less collections per week, dispensation from the requirement to use a compactor may be applied on a case by case basis.

The shared use of compactors for residential and commercial waste may be considered at the City of Melbourne’s discretion. The compactor should be designed to hold at least 1 week’s residential and commercial garbage or 1 week’s residential and commercial commingled recycling, or multiple thereof. If the combined total of weekly residential and commercial waste exceeds the capacity of a 25m3 compactor, the commercial waste will be required to be managed separately.

Table 5 - Compactor sizing chart

For developments consisting of apartments only

|  |  |  |
| --- | --- | --- |
| **WASTE VOLUME (L PER WEEK)** | **COMPACTOR SIZE** | **APARTMENTS SERVICED\*** |
| 25,000 | 8m3 | 250 |
| 30,000 | 10m3 | 300 |
| 40,000 | 13m3 | 400 |
| 45,000 | 15m3 | 450 |
| 57,000 | 19m3 | 570 |
| 69,000 | 23m3 | 690 |

\* Based on average 100L per week per apartment

Compactors must be purchased or leased by the development. All ongoing maintenance and cleaning is the responsibility of the development. Developments must supply any required internal bins.

Separate compactors must be used for garbage and commingled recycling. Compactor size can be calculated using the sizing chart shown in Table 5. Figures are based on a 3:1 compaction ratio. This ratio can be used for both waste and commingled recycling compactors.

If chutes are feeding directly into compactors, the compactors must be able to accept waste from bins to accommodate larger items that do not fit in chutes. Adequate space for a bin lifter to be operational must be provided, and the bin lifter should be shown on floor plans. The bin lifter must be supplied and maintained by the development.

The development must ensure that bin lifters do not impede the collection of compactors, and relocate them prior to collections if necessary. Each compactor must have a dedicated bin lifter.

Compactor size can impact compatibility with collection vehicles, especially the length of the compactor unit. Industry standard hook lift heights are considered to be 1610mm and outer rail to outer rail width at 1060mm. Any compactor with differing measurements will need to be agreed with City of Melbourne.

## 6. Collection frequency

The City of Melbourne provides residential garbage, commingled recycling and organics bin based collections up to 3 times per week depending on the size of the development.

City of Melbourne typically\* collects residential waste at the following frequencies:

* 1 to 55 apartments = 1 collection per week
* 56 - 150 apartments = 2 collections per week
* 151 - 250 apartments = 3 collections per week
* >250 apartments = Compactor collected weekly.

\* Collection frequencies and collection days are at the City of Melbourne‘s discretion.

Additional collections are not available from the City of Melbourne. Any additional collections will need to use a private collection contractor at the development’s expense.

## 7. Bin storage

Developers must provide a bin storage room. In the case of high-rise and mixed use developments, multiple rooms may be required. Each waste stream must be separated and clearly labelled. Residential waste needs to be kept separate from commercial waste if a bin based system is used.

Adequate space must be provided within the bin room and be presented on the plans submitted to Council to allow for safe manoeuvring of bins.

The following details must be provided:

* bin room size (m2)
* bin layout
* wash-down area
* ventilation
* vermin prevention
* noise reduction
* storm water pollution prevention
* odour mitigation techniques.

## 8. Collection location

Garbage, commingled recycling and organics bins must always be stored on-site between collections. It is illegal to store any waste or recycling container, including bins, permanently in the public space other than in circumstances prescribed by the City of Melbourne. [City of Melbourne’s Activities Local Law 2019](https://www.melbourne.vic.gov.au/SiteCollectionDocuments/activities-local-law-2019.pdf)[[4]](#footnote-4) (Clause 12.10-12.16) includes specific waste requirements that must be adhered to by all developments.

There are two types of collection locations:

### On-site collections

For all developments with more than 55 dwellings, bins must not be placed outside the property boundary for collection. Bins must be collected via a loading dock or similar suitable collection area within the property boundary. When a building is being designed to accommodate a City of Melbourne collection vehicle on-site, the bins must be immediately accessible to the loading area. This can be achieved either via an adjacent bin room or provision of a temporary bin holding area that is located immediately adjacent to the collection location. If bins are to be placed in a temporary bin holding area, it is the Building Manager’s responsibility to bring the bins to this area.

On-site collection areas must cater for the size of the City of Melbourne’s waste collection vehicles.

Currently, City of Melbourne’s waste fleet requires the following clearance dimensions to access a site:

* minimum height 4.0 metres
* minimum width 2.6 metres
* minimum length 8.8 metres

The maximum weight load of the waste vehicle is 24 tonnes.

On-site collection areas must allow adequate additional space for bin presentation, access and loading.

There must be 2.0m clearance at the rear of the waste vehicle to allow for emptying of bins, and 1.0m clearance at the sides of the waste vehicle to allow occupants of the vehicle to safely exit and enter the vehicle.

Compactors have specific vehicular access requirements. The rear of the hook lift waste vehicle sits 1.0m in front of the compactor to perform collections. This clearance requirement must be factored in when designing the loading area. The hook lift waste vehicles are generally larger (10.8m in length) and a 5.0m height clearance must be allowed at point of lift. This must be confirmed by the compactor manufacturer.

Note that height clearances must ensure any services, sprinklers or light fittings do not encroach on this requirement. Failure to do so will result in the development being responsible for the costs to move services to allow waste collection vehicle access.

### On-street collections

Bins must be placed at the front, rear or side (corner properties only) of the property and be accessible by the City of Melbourne’s waste collection vehicles. Bins that are permitted at the kerbside for collection must not obstruct pedestrians, street furniture, bike lanes, driveways or other points of access and must not exceed the property frontage. Bins must be returned to the property within 3 hours of collection in the central city or other areas prescribed by Council and within 24 hours in all other locations.

Developments with more than four dwellings will require communal bins. Developments with four or less dwellings can apply for individual bins for each dwelling, and will undergo a case by case assessment for the viability of individual bins.

On-street collection is not permitted if the collection frequency is greater than once per week, due to local amenity impacts.

The location of residential bin stores must be designed so that:

* Residents do not have to leave the property boundary to access the bin store
* The path of travel from the bin store to the collection location must be kept to a minimum and allow safe passage of individuals while they manoeuvre the bins. This must be consistent with Occupational Health and Safety legislation.

The building manager or equivalent of a multi-unit development is responsible for putting the bins out for collection or providing access for waste collectors to the bin collection point.

If bins are stored in a basement or car park, the building manager is responsible for ensuring the bins are taken to the agreed collection point within the development. For health and safety, the City of Melbourne recommends developers consider additional mechanical assistance such as tugs when transferring bins, especially when long distances, ramps/gradients and/or large heavy bins are present.

## 9. Additional waste requirements

Developers must provide for the storage and disposal of hard waste, e-waste, charity goods and any other waste stream generated at the site.

Hard waste

The City of Melbourne offers a hard waste collection for residents only. Individual households can book one 1m3 service per annum. Hard waste items from multi-unit developments are not permitted to be placed on the kerb for collection. On-site hard waste storage must be provided as follows:

* Multi-unit developments of 50 - 250 Apartments may book a once monthly 4m3 collection. 4m2 of floor space for hard waste storage is required
* Multi-unit developments of 250 – 500 Apartments may book up to two monthly 4m3 collections. 4m2 of floor space for hard waste storage is required
* Multi-unit developments of 500-750 Apartments may book up to two monthly 6m3 collection. 6m2 of floor space for hard waste storage is required.
* Multi-unit developments of 750-1000 Apartments may book up to two monthly 8m3 collection. 8m2 of floor space for hard waste storage is required.
* Multi-unit developments of >1000 Apartments may book up to two monthly 10m3 collection. 10m2 of floor space for hard waste storage is required.

Access for residents to deposit their hard waste into the storage location must be safe. Hard waste should not be placed within the chute termination room unless the termination points are fully enclosed.

A hard waste collection area must be provided that is immediately adjacent to the collection location. If the hard waste storage area is not immediate to the collection location, the building manager must present the hard waste to the collection location prior to the time of collection. High rise hard waste collections are usually coordinated by the building manager.

### e-waste

The Victorian Government has banned e-waste from landfill in Victoria, effective 1 July 2019.

Electronic waste (e-waste) is defined as waste in the form of electrical or electronic equipment, devices or things (or materials or parts of such equipment, devices or things), the operation of which is dependent on, or designed for the generation, transfer or measurement of, an electric current or electromagnetic field.

This means any device that has a plug, battery or power cord that is no longer working or wanted. It includes a range of items we use and discard from our homes and businesses, for example:

* televisions
* computers
* mobile phones
* kitchen appliances
* whitegoods
* batteries (including rechargeable batteries)
* photovoltaic panels.

e-waste contains many potentially hazardous or valuable materials that don’t belong in landfill. The City Of Melbourne provides free drop off locations for its residents that can be found on our website. Additionally, buildings of 20 apartments or more can arrange for a bin to conveniently recycle electronic and electrical items, household batteries and power cords. Bins are available in 240L and 660L and come equipped with a sticker that shows the acceptable materials.

The service needs to be arranged by an authorised building representative (building manager, owners corporation manager or similar) and the bin needs to be kept within the property boundary and undercover in a secure location. The e-waste service is flexible and allows buildings to arrange a temporary bin as required or arrange a direct replacement bin when the original bin is full.

For more information on the management of e-waste, refer to: [Recycling e-Waste in CoM](https://www.melbourne.vic.gov.au/residents/waste-recycling/Pages/e-waste-chemicals.aspx)[[5]](#footnote-5)

Charity goods

The City of Melbourne recommends all residential multi-unit developments with more than 50 apartments provide space for one or more charity bins. Charity bins are available in various sizes; however 1 m2 is adequate for most developments.

Most charities offer a free service, including bin supply and collection, and will generally collect clothing, used furniture and homewares in good condition. Council does not provide this service.

## 10. Scaled waste management drawings

Developers must provide a set of scaled drawings showing the disposal of waste from the occupant to the final collection point by the collection contractor.

The drawings must include:

* elevation drawings (including all hanging services) showing adequate clearance for the collection vehicle from the development’s entry and exit points to the point of collection
* generic residential and commercial floor showing garbage and commingled recycling disposal points
* waste infrastructure and storage areas including any chutes, carousels, compactors, bins, bin lifters, hard waste and charity bins
* clear diagram of movement of each material from disposal, storage and collection points including any gradient/slope/stairs
* bin presentation location (on-street or on-site) with bin alignment shown for each individual bin showing size and material type
* swept path diagrams illustrating sufficient access to collection points for all vehicles required to collect from the development. Swept Path diagrams must show access to/from the nearest main street to ensure access into smaller streets/laneways is feasible.

## 11. Collection contractors

The City of Melbourne has a responsibility to collect garbage, commingled recycling and organics from residential properties. All residential buildings must be designed in a manner that allows for servicing by the City of Melbourne.

If the developments waste generation exceeds the City of Melbourne’s entitlement, private collection contractors may be used for some residential properties to supplement the City of Melbourne’s collection service.

## 12. Signage

Signs will be required at drop-off points and within the bin area to encourage correct recycling and reduce contamination. The City of Melbourne provides assistance with signage. Further information is available online at [Signage for Apartments](https://www.melbourne.vic.gov.au/residents/waste-recycling/apartment-buildings/Pages/waste-signage-for-apartments.aspx)[[6]](#footnote-6)

# Commercial waste management plans

The City of Melbourne does not collect commercial waste (except in minimal quantities) but does mandate waste methodology requirements as outlined in these Guidelines. Small commercial planning applications such as individual shops, showrooms or warehouses can use templates prepared by the City of Melbourne. Larger scale developments require a more detailed WMP that is based on these current Waste Guidelines.

[WMP templates](https://www.melbourne.vic.gov.au/pages/search-results.aspx?k=waste%20management%20plan%20template&type=web)[[7]](#footnote-7) are available online or on request.

Student accommodation commercial properties must be designed to the residential standards outlined within these guidelines. An exception does apply to the spatial requirements of the loading area. A loading area that accommodates a Small Rigid Vehicle is acceptable. Further information for generation rates for these developments can be found below in Table 6.

What to include:

## 1. Land use details

The City of Melbourne requires a summary of the proposed land use. This should include:

* land use zoning
* number of floors
* number of commercial outlets
* types of commercial outlets
* size of commercial outlets (m2)

number of stages in the development if it is precinct based and will occupy adjoining lots. Details of ownership of each of the stages are required. If all stages belong to the same owner, all stages may be considered and assessed as one application.

## 2. Waste generation

A list of common waste generation rates is shown below. The list is also available online at [Waste Generation Rates](https://www.melbourne.vic.gov.au/sitecollectiondocuments/waste-generation-rates-jan-2015.pdf)[[8]](#footnote-8)

The City of Melbourne recommends commissioning an external consultant to calculate the waste volumes for commercial developments. Waste generation estimates are the responsibility of the developer.

If the development contains a retail space and the type of retail use is unknown at the time of Waste Management Plan submission, the development must use the waste generation rates listed below for a Café.

Table 6 – Commercial waste generation rates

|  |  |  |
| --- | --- | --- |
| **OUTLET TYPE - OTHER** | **GARBAGE** | **COMMINGLED RECYCLING** |
| **Common Food premises**  |
| Restaurants | 660L/100 m2 floor area/day | 200L/100 m2 floor area/day |
| Supermarkets | 660L/100 m2 floor area/day | 240L/100 m2 floor area/day |
| Convenience Store | 300L/100 m2 floor area/day | 150L/100 m2 floor area/day |
| Café | 300L/100 m2 floor area/day | 200L/100 m2 floor area/day |
| Takeaway / Café (pre-packaged food only) | 150L/100 m2 floor area/day | 150L/100 m2 floor area/day |
| **Common Commercial (non-food)** |
| Education/Training (teaching space) | 5L/100 m2 floor area/day or 0.5L/student/week | 5L/100 m2 floor area/day or 0.5L/student/week |
| Offices | 10L/100 m2/day | 10L/100 m2/day |
| Licensed club | 50L/100 m2 floor area/day | 50L/100 m2 of floor area/day |
| Shops (non-food) | 50L/100 m2 floor area/day | 50L/100 m2 floor area/day |
| Showrooms | 40L/100 m2 floor area/day | 10L/100 m2 floor area/day |
| Warehouse (office) | 10L/100 m2/day | 10L/100 m2/day |
| **Common Accommodation** |
| Student housing/backpacker | 40L/occupant/week | 40L/occupant/week |
| Boarding house/guesthouse | 60L/occupant/week | 60L/occupant/week |
| Hotel/Motel | 5L/bed/day | 5L/bed/day |
| Serviced Apartment | 35L/apartment/week | 35L/apartment/week |
| **Specialised Food premises** |
| Butcher | 80L/100 m2 floor area/day | 50L/100 m2 floor area/day |
| Delicatessen | 80L/100 m2 floor area/day | 50L/100 m2 floor area/day |
| Fish shop | 80L/100 m2 floor area/day | 50L/100 m2 floor area/day |
| Greengrocer | 240L/100 m2 floor area/day | 120L/100 m2 floor area/day |
| **Specialised Commercial (non-food)** |
| Cattery | 10L/cat/week | nil |
| Childcare | 350L/100 m2 floor area/week | 350L/100 m2 floor area/week |
| Gym | 10L/100 m2/day | 10L/100 m2/day |
| Hairdresser | 60L/100 m2 floor area/day | 60L/100 m2 floor area/day |
| **Other Accommodation** |
| Retirement Village | 60L/apartment/week | 60L/apartment/week |
| Independent Living | 80L/apartment/week | 80L/apartment/week |

## 3. Waste systems

Details of the system must be provided, ensuring ease of use for the separation of recyclables and storage and collection of waste. It must be as easy to dispose of each type of recyclable material as it is garbage.

Where the development is to incorporate a food business, provision for the management of cooking oil, liquid waste and bulky items (such as crates and kegs) must be provided.

### Bins and skips

The most common form of waste container is wheeled bins because they can be easily moved between commercial outlets and the bin room. All waste streams can be accommodated including garbage, commingled recycling, paper, cardboard, organics, prescribed waste and secure document destruction. Bin lifters can be used to load waste from 120L or 240L bins into larger front-load skips, reducing the number of bins to be collected.

### Compactors

Developments that generate a total volume of 25,000L of garbage and/or 25,000L of commingled recycling per week are required to provide a compactor/s for each waste stream. If the development is generating over 25,000L but less than 40,000L per week of garbage or commingled recycling but can manage waste servicing utilising three or less collections per week, dispensation from the requirement to use a compactor may be applied on a case by case basis.

Compactors can be used for handling medium to large volumes of garbage, paper, cardboard and other recyclables. Specific vehicular access requirements will need to be considered. 5.0m height clearance should be allowed. This must be confirmed by the compactor manufacturer. Furthermore specifications for the collection vehicles must be confirmed with the service provider to ensure they are compatible with the compactor to be utilised.

If chutes are feeding directly into compactors, the compactors must be able to accept waste from bins also, to accommodate larger items that do not fit in chutes. Adequate space for a bin lifter to be operational must be provided, and the bin lifter should be shown on floor plans. The development must ensure that bin lifters do not impede the collection of compactors, and relocate them prior to collections if necessary. Each compactor must have a dedicated bin lifter.

Commercial waste collected using the same compactor as the residential waste may be considered at the City of Melbourne’s discretion.

The compactor should be designed to hold at least 1 week’s residential and commercial garbage or 1 week’s residential and commercial commingled recycling, or multiple thereof. If the combined total of weekly residential and commercial waste exceeds the capacity of a 25m3 compactor, the commercial waste will be required to be managed separately.

### Public Place compactors and recycling hubs

City of Melbourne offers businesses the opportunity to use public place compactors and recycling hubs. If the business falls within a public place compactor and recycling hub, please contact City of Melbourne to discuss whether the business’ volume and type of waste would be suitable for our communal hubs. In order to future proof developments, there is a requirement to provide storage for at least 3 day’s worth of waste for each stream, even if the intention is to solely use the public place compactors and recycling hubs. For further information and location details refer to: [Public Place Compactors and Recycling Hubs](https://www.melbourne.vic.gov.au/business/waste-recycling/Pages/garbage-compactors-recycling-hubs.aspx)[[9]](#footnote-9)

### Automation

The automated waste system uses a vacuum to transport waste via a tube network. It has specific design elements which need to be considered if introduced.

Components of the system:

* inlets
* pipe network
* collection station.

Design considerations include system capacity and infrastructure requirements for the pipe system.

Organic/food waste processing

Developments that cumulatively generate more than 1500L of organic waste per week are not permitted to dispose of their organic waste to landfill. Organic waste must be processed either onsite or through an offsite service.

Food waste processing systems use a range of technologies, such as anaerobic or aerobic digestion or dehydration to process food waste. Information on the system requirements, potential benefits and costs is available from technology providers.

Adequate storage space must be provided for spare bins for situations where the onsite food waste processing unit is non-operational.

The following waste generation rates are to be used by developments that generate more than 1,500L of organic waste per week.

### Balers

Balers are commonly used for cardboard. They can reduce the storage space required, however bales require mechanical lifting when collected.

### Glass crushers

Developments which produce a lot of glass waste can benefit by the use of a glass crusher. These machines can reduce the volume of glass by up to 75 per cent, saving valuable space in developments. The majority of machines available are designed to minimise noise pollution. Small bins and specialised collection contractors are required.

## 4. Bin quantity, size and colour

There are numerous large bins available which commercial developments may consider using. Common bin sizes are 240L, 360L, 660L, 1100L (wheeled bins), 1.5, 3.0 and 4.5 cubic metres (front lift skips).

Developers should be aware that bin size will impact the vehicle access requirements.

Table 7 – Common commercial waste generation rates, including organic waste

|  |  |  |  |
| --- | --- | --- | --- |
| **OUTLET TYPE - RETAIL**  | **GARBAGE** | **ORGANICS** | **COMMINGLED RECYCLING** |
| Restaurant | 528L per 100 m2 floor area per day | 132L per 100 m2 floor area per day | 200L per 100 m2 floor area per day |
| Supermarkets | 528L per 100 m2 floor area per day | 132L per 100 m2 floor area per day | 240L per 100 m2 floor area per day |
| Cafe | 240L per 100 m2 floor area per day | 60L per 100 m2 floor area per day | 200L per 100 m2 floor area per day |
| Take-away or cafe (pre-packaged food only) | 120L per 100 m2 floor area per day | 30L per 100 m2 floor area per day | 150L per 100 m2 floor area per day |

\* Appropriate case study/empirical data may be used in place of the above generation rates

## 5. Collection frequency

The City of Melbourne supports the reduction of waste vehicle movements in our city. A maximum of three collections per week for each waste stream is permitted. It is recommended that developments containing multiple tenancies combine waste storage and collection arrangements in order to minimise the number of trucks required to service the property.

## 6. Bin storage room

Developers must provide a bin room. Multiple rooms may be needed in some developments. Bin rooms should be located on the same level as the loading dock. Otherwise, a dedicated goods lift is recommended for transferring bins.

Each waste stream must be separated and clearly labelled. Residential waste should be kept separate from commercial waste.

In a development with multiple tenants, internal access to the bin store room must be provided so that tenants do not have to exit the building to deposit their waste.

A minimum corridor and door width of 1.5m is required when using 660L and 1,100L bins.

The following details must be included in the plan:

* bin room size (m2)
* bin layout
* wash-down area
* ventilation
* vermin prevention
* noise reduction
* storm water pollution prevention.

## 7. Collection location

All bins must be stored on-site. It is illegal to store waste and recycling bins permanently in the public space other than in circumstances prescribed by the City of Melbourne.

[City of Melbourne’s Activities Local Law 2019](https://www.melbourne.vic.gov.au/SiteCollectionDocuments/activities-local-law-2019.pdf)[[10]](#footnote-10) includes specific waste requirements that must be adhered to by all developments.

Bins and compactors must be collected on-site via a loading dock or similar suitable collection area within the property boundary unless:

* The development has one collection per week of each waste stream
* The size of the development does not allow for an on-site collection.

Developments permitted to practice on-street collections must not place bins on the kerbside for collection. Bins are to be brought out in co-ordination with a waste collection vehicle that is legally parked in a nearby loading zone. The waste collection vehicle must not prop in a bike lane or location that will obstruct pedestrians. When bins are not located on the same level as the collection location, there must be provision of a temporary holding area for the bins (within the property boundary) that is on the same level as the collection location.

On-site collection areas must allow adequate additional space for bin presentation, access and loading.

There must be 2.0m clearance at the rear of the waste vehicle to allow for emptying of bins, and 1.0m clearance at the sides of the waste vehicle to allow occupants of the vehicle to safely exit and enter the vehicle.

Hooklift waste vehicles require a clearance between the compactor and vehicle (generally 1.0m) to perform collections. This clearance must be factored in when designing the loading area.

Private collection contractors use a variety of waste vehicle sizes for collection. For industry standard vehicles sizes see Table 8.

Swept path diagrams illustrating sufficient access to the collection locations must be submitted for all waste collection vehicles.

Table 8 – Design vehicle dimensions

|  |  |  |  |
| --- | --- | --- | --- |
| **WASTE VEHICLES**  | **HEIGHT**  | **WIDTH**  | **LENGTH**  |
| Small Rigid Vehicle (SRV)  | 3.5m  | 2.3m  | 6.4m  |
| Medium Rigid Vehicle (MRV)  | 4.5m  | 2.5m  | 8.8m  |
| Heavy Rigid Vehicle (HRV)  | 4.5m  | 2.5m  | 12.5m  |

Developers must ensure the following when designing bin rooms:

* level floors without slope or steps
* located in a convenient position with internal access for each commercial tenement
* sufficient space for each waste stream
* sufficient space for manoeuvring bins within the bin room.

Developers must ensure the following when designing waste transfer routes:

* level floors without slope or steps
* located in a convenient position with internal access for each commercial tenement.

Developers must ensure the following when designing collection locations:

* level ground without slope or steps
* located in a convenient position for collection contractors
* adequate on-street loading zones are available for use by waste vehicles.

The contractor may be able to ferry bins to a waiting vehicle but the vehicle must be legally parked while unattended.

## 8. Additional waste requirements

### Hard waste

Developers must provide for the communal storage and disposal of hard waste. Space for on-site communal storage of hard waste must be shown and drawn to scale on the floor plan. Hard waste should not be placed within a chute termination room unless the termination points are fully enclosed.

The City of Melbourne will not provide hard waste collection for commercial properties or tenants. We recommend consultation with the collection contractor in terms of collection of hard waste.

Hard waste is not permitted on the kerb for collection. On-site storage must be provided by the commercial tenant with access for the collection contractor. The storage area must be shown drawn to scale on a floor plan. The Waste Management Plan must detail how hard waste will be managed at the development.

### e-waste

The Victorian Government has banned e-waste from landfill in Victoria, effective 1 July 2019. Developers must provide for the storage and disposal of e-waste. Space for on-site storage of e-waste must be shown and drawn to scale on the floor plan.

There are several schemes that offer small businesses removal of certain types of e-waste for free or at little cost. The National Television and Computer Recycling Scheme is one such scheme offered by the Australian Government, and was established to provide Australian households and small businesses with access to free industry-funded collection and recycling services for televisions and computers, including printers, computer parts and peripherals. The Waste Management Plan must detail how e-waste will be managed at the development.

## 9. Scaled waste management drawings

Developers must provide a set of scaled drawings showing the disposal of waste by the staff to the final collection point by the collection contractor.

The drawings must include:

* the path of travel for all waste (including hard waste) from the point of generation to the disposal point
* the path of travel for bins from the storage point to the collection point
* typical commercial floor showing garbage and commingled recycling drop-off points
* bin rooms including any bins and compactors
* bin presentation location (street or on-site) with bin alignment shown.

## 10. Collection contractors

The City of Melbourne is not responsible for collecting commercial waste. The City of Melbourne typically only collects waste from commercial rateable properties that generate up to the residential volume per week (120L garbage and 240L commingled recycling). The City of Melbourne provides some communal waste services to businesses within the CBD. Please contact Council on 9658 9658 if you require further information in relation to these services.

## 11. Signage

Signs will be required within the bin area to encourage correct recycling and reduce contamination. The City of Melbourne provides assistance with recycling signage. Signage may also be provided by the private collection contractor.

| **VERSION** **NUMBER** | **DATE APPROVED** | **APPROVED BY** |
| --- | --- | --- |
| 6.0 | June 2021 | DEB CAILES |

1. https://www.melbourne.vic.gov.au/about-melbourne/sustainability/pages/waste-and-resource-recovery-strategy-2030.aspx [↑](#footnote-ref-1)
2. https://www.vic.gov.au/sites/default/files/2020-02/Recycling Victoria A new economy.pdf [↑](#footnote-ref-2)
3. https://www.melbourne.vic.gov.au/pages/search-results.aspx?k=waste%20management%20plan%20template&type=docs [↑](#footnote-ref-3)
4. https://www.melbourne.vic.gov.au/SiteCollectionDocuments/activities-local-law-2019.pdf [↑](#footnote-ref-4)
5. https://www.melbourne.vic.gov.au/residents/waste-recycling/Pages/e-waste-chemicals.aspx [↑](#footnote-ref-5)
6. https://www.melbourne.vic.gov.au/residents/waste-recycling/apartment-buildings/Pages/waste-signage-for-apartments.aspx [↑](#footnote-ref-6)
7. https://www.melbourne.vic.gov.au/pages/search-results.aspx?k=waste%20management%20plan%20template&type=web [↑](#footnote-ref-7)
8. https://www.melbourne.vic.gov.au/sitecollectiondocuments/waste-generation-rates-jan-2015.pdf [↑](#footnote-ref-8)
9. https://www.melbourne.vic.gov.au/business/waste-recycling/Pages/garbage-compactors-recycling-hubs.aspx [↑](#footnote-ref-9)
10. https://www.melbourne.vic.gov.au/SiteCollectionDocuments/activities-local-law-2019.pdf [↑](#footnote-ref-10)