

WASTE MANAGEMENT PLAN



Project Type:	12 Luxury Apartments
Client:	Collière Architecture
Project Address:	25 The Esplanade Mount Pleasant
Date:	March 2021



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1 EXECUTIVE SUMMARY

Collière Architecture (on behalf of its client) is applying to the City of Melville (the “City”) to develop a property known as 15 The Esplanade, Mount Pleasant. The development is proposed to be 12 luxury apartments.

As part of the Development Approval process, the proponent is required to submit a Waste Management Plan (WMP) for the development to the City. Collière Architecture employed the services of waste specialists Dallywater Consulting to investigate the City’s requirements in this regard and to develop this WMP.

Based on the City’s generation rates with weekly FOGO and fortnightly waste and recycling collections, two 240 litre FOGO bins will be required for weekly collection with seven 240s and four 360s required for the waste and recycling material respectively.

Review

The above-mentioned waste servicing arrangements will be reviewed as a matter of course on an ongoing basis to ensure that the most efficient arrangements to manage the waste and recycling material generated by all aspects of the facility are in place and are maintained.

DEFINITIONS

240: A 240 litre waste or recycling receptacle.

360: A 360 litre waste or recycling receptacle.

FOGO (service): Food Organics and Garden Organics - a local government kerbside collection service for food and garden organic material.

Mobile Garbage Bin (MGB): A wheeled receptacle used by domestic residences and commercial premises within a local government municipality to deposit waste materials for emptying by the local government or a collection contractor.

Mobile Recycling Bin (MRB): A wheeled receptacle used by domestic residences and commercial premises within a local government municipality to deposit recycling materials for emptying by the local government or a collection contractor.

Recycling: Any material accepted by the local government's recycling collection contract.

Waste: Any recyclable and non-recyclable discarded solid, semi-solid, liquid or contained gaseous materials not accepted by the local government's recycling collection contract.

Waste Minimisation: A process to minimise the amount of waste requiring disposal via hierarchical activities such as behaviour and product modification, waste avoidance, reduction, reuse and recycling.

Total Waste Stream: The combined waste, recyclables and compostables.

2 INTRODUCTION

2.1 The Development

Collière Architecture (on behalf of its client) is applying to the City of Melville (the “City”) to develop a property known as 15 The Esplanade, Mount Pleasant. The development is proposed to be 12 luxury apartments.

As part of the Development Approval process, the proponent is required to submit a Waste Management Plan (WMP) for the development to the City. Collière Architecture employed the services of waste specialists Dallywater Consulting to investigate the City’s requirements in this regard and to develop this WMP.

Figure 1: Location Plan



Source: Landgate Map Viewer Plus 2021

Table 1: Number and Size of Residential Apartments

UNIT TYPE	Number
Residential Apartments	
3 Bed	12
Total Residential Apartments	12

A site plan of the development is included on the following page.

2.2 Onsite Waste Management

The following provisions have been made for waste and recycling on the site:

- **Bin Store**
 - A combined bin and bulk store is located in the basement.
 - Residents will be required to place putrescible food and organic material into composting bags provided for the purpose and walk their material down to the store for disposal.
- **Waste Collection**
 - The proponent intends use the City’s kerbside waste and recycling collection services.

3 LOCAL GOVERNMENT WASTE MANAGEMENT REQUIREMENTS

3.1 Waste Management Guidelines

The City's Local Planning Policy LPP1.3 titled *Waste and Recyclables Collection for Multiple Dwellings, Mixed Use Developments and Non-Residential Developments* provides the criteria for solid waste management for these types of multi-unit developments. The consultant has used a later (draft) version (review date March 2020) provided by the City to prepare this WMP.

3.2 Waste Generation

The City's waste management requirements for this type of development are as follows:

- A range of bin sizes can be used, subject to the type of proposed collection arrangements (e.g. internal or kerbside);
- Developments are to be designed to incorporate suitable storage facilities for the containment of a minimum of one week's organics, and two weeks waste and recycling;
- The City provides 8L kitchen caddy liners to residents to assist with the in-house collection and transfer of organic material into their FOGO bins.
- An under-bench kitchen caddy is preferred to be incorporated into the kitchen design to accommodate the 8L kitchen caddy liners. Where this is not possible, a 7L kitchen caddy can be provided by the City, however space and provision for this must be accommodated.
- Where possible, under-bench bins for general waste, recycling and FOGO should be incorporated into the kitchen design to ensure the correct waste separation and alignment with the City's 3-bin system.

The waste generation rates for development are prescribed in the following table.

Table 2: Waste Generation Rates

	Waste Requirement	Recycling Requirement	FOGO Requirement
Multiple Dwellings	65L per multiple dwelling per week	40L per multiple dwelling per week	28L per multiple dwelling per week

3.3 Bin Store Requirements

The City's requirements for bin stores are as follows:

- Should be adequate to house all bins with sufficient area to manoeuvre the bins to ensure that access is available at all times to part or empty waste and recycling bins.
- Be provided with a permanent water supply and drainage to sewer with washdown facilities.
- Out of sight and well screened from public areas.
- Design is to be consistent with the development.
- Be easily accessible to allow for the removal of the receptacles

3.4 Bin Presentation

- Depending on the material, 140 and 240 and 360 litre bins can be used for the kerbside collection;
- Bins would be brought from within the bin stores to the kerb collection point; and
- Bins would be returned to the stores as soon as possible after they have been emptied.

3.5 Waste Capacity

Based on the above requirements, the weekly storage capacity required by the City for waste and recycling from the proposed development is detailed in the following table. Note that where applicable, figures have been rounded up.

Table 3: Estimated Weekly Volumes

	Waste Requirement	Recycling Requirement	FOGO Requirement
No. of Units	65L per multiple dwelling per week	40L per multiple dwelling per week	28L per multiple dwelling per week
12 Apartments	0.78m ³ /week	0.48m ³ /week	0.34m ³ /week
	1.56m ³ /fortnight	0.96 m ³ /fortnight	

3.6 Number of Bins

Based on the generated volumes of materials, the number of 240 litre or 360 litre receptacles required to cater for the weekly waste, recycling and FOGO volumes for this development are detailed in the following table.

Table 4: Required Bin Capacity

	Waste Requirement	Recycling Requirement	FOGO Requirement
No. of Units	65L per multiple dwelling per week	40L per multiple dwelling per week	28L per multiple dwelling per week
12 Apartments	0.78m ³ /week	0.48m ³ /week	0.34m ³ /week
Total Generation	1.56m ³ /fortnight	0.96 m ³ /fortnight	
Bin Size	240 litre	360 litre	240 litre
No. of Bins	6.5(7)	4	1.4 (2)

3.7 Summary

Based on the City's generation rates with weekly FOGO and fortnightly waste and recycling collections, two 240 litre FOGO bins will be required for weekly collection with seven 240s and four 360s required for the waste and recycling material respectively.

4 BIN STORAGE AND MANAGEMENT

4.1 Bin Compound/Store

There is one bin store located in the basement of the development. This is where washdown of the bins and storage of bulk waste will occur.

The location of the store is depicted in Figure 3 on the following page.

4.2 Bin Store Specifications

The store has been designed to meet the City's specifications and is of sufficient size to be able accommodate all receptacles and the bin tug.

4.3 Amenity

The store has been designed so that it;

- is well ventilated to prevent escape of smells;
- can be kept thoroughly clean and disinfected; and
- is consistent with the overall aesthetics of the development.

4.4 Bin Management

Facility Management staff or other nominated personnel/contractors will manage waste throughout the facility and as such, will be aware of the expectations regarding use of the bins and store.

Those staff will be responsible for ensuring that the bins on the apartment levels are monitored daily and full bins swapped out for empty ones as required.

Those staff will also monitor the usage of the bins to ensure residents are disposing of material correctly.

4.5 Bin Presentation and Collection

Collection of bins will be as per the following arrangements:

- Bins will be brought to the road via the lifts or use of an electric "tug" and wheeled to the kerbside.
- Once emptied, they would be returned to the store and cleaned if required.

4.6 Signage

Best practice facility bin management and material separation signage will be installed to the bin store area.

Figure 4: Bin Storage – Basement

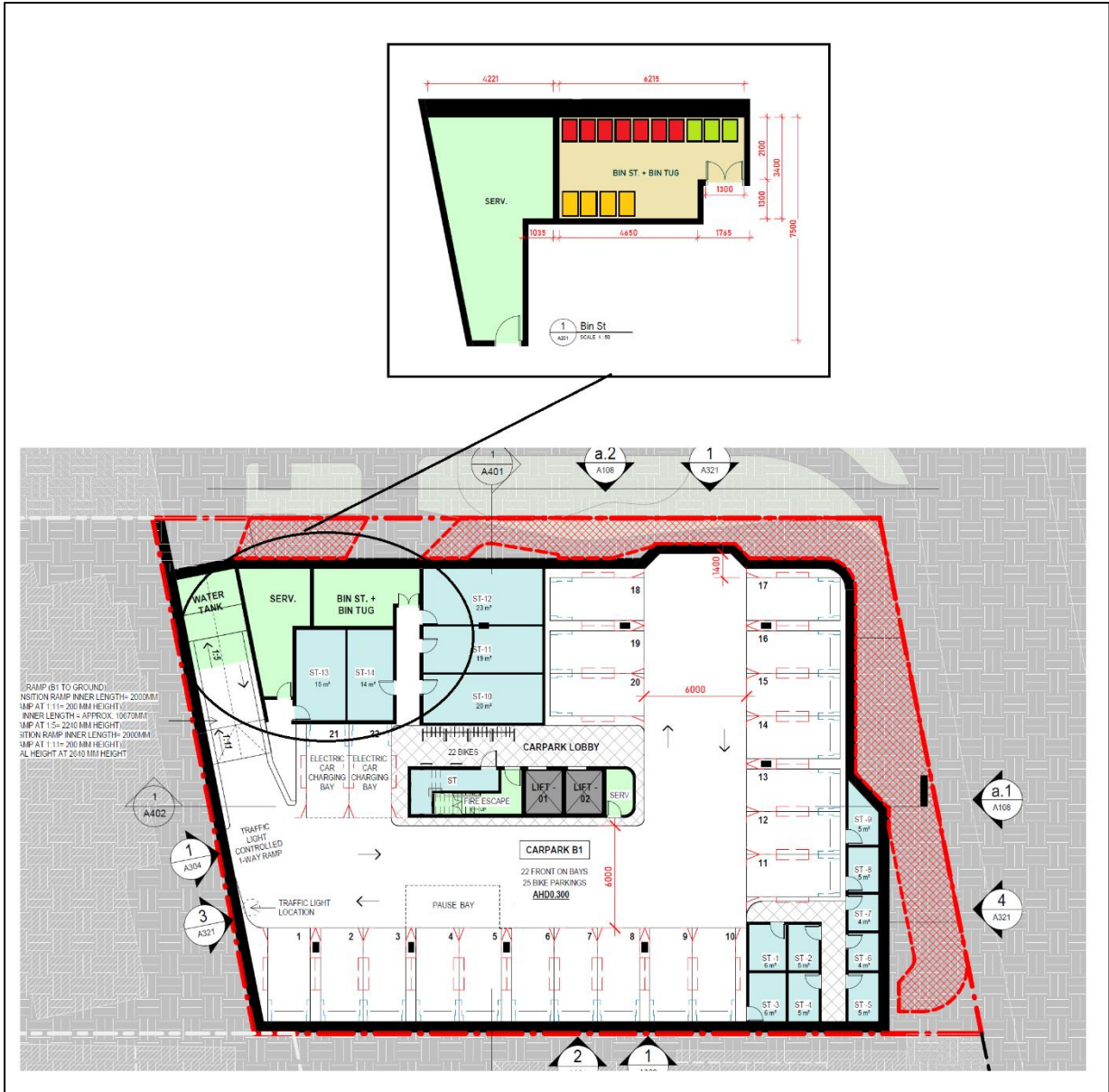
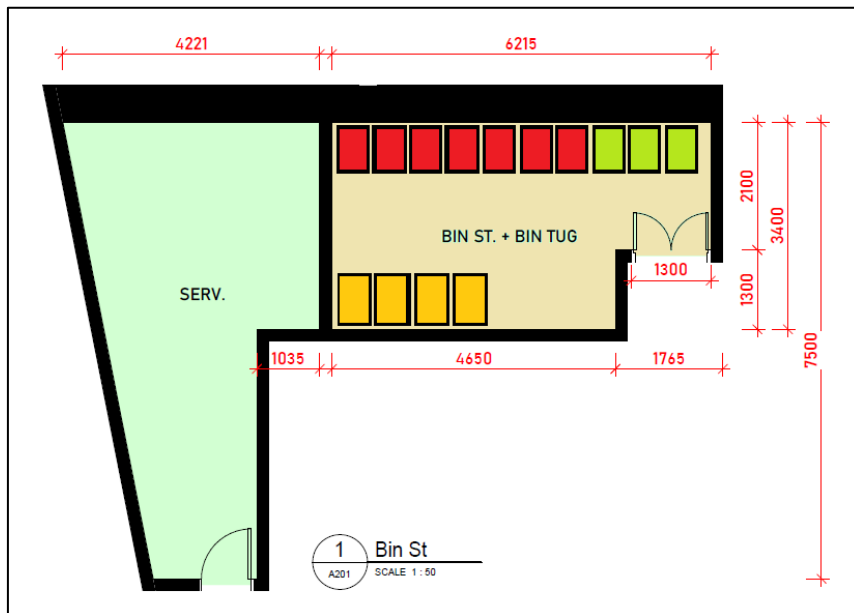


Figure 4: Bin Store



5 WASTE MANAGEMENT RESPONSIBILITIES

5.1 Building Owners/Strata Management

The Strata/Building Management will have responsibility for ensuring that the residential waste management activities are appropriately conducted and that residents meet their waste management responsibilities.

The building management will allocate responsibility for all waste management activities to a Grounds person, Building Caretaker or Cleaner (Waste Person). This position will be responsible for the management of waste throughout the complex and they will be trained in all facets of the role.

5.2 Building Caretaker/Cleaner (Waste Person)

At a minimum, the waste personnel will undertake the following bin servicing and waste management functions;

- Regular cleaning of bins and bin store;
- Presenting bins to the street on collection days, and returning the bins to the store after collection has occurred.

In addition, the education of incoming residents will be a priority for these staff.

In the future, with the initial assistance of waste management experts, training of staff to implement Waste Minimisation Plans for the residential components of the development may be explored. The plans could provide recommendations on, and include specific actions for;

- the segregation of specific recycling materials from the comingled stream; and
- implementation of waste reduction initiatives such as eWaste recycling, worm farms or composting etc.

5.3 Residents

All residents would be instructed via the Strata Management of the various waste requirements. This would include direction on the use of the bin facilities and expectations of the managing body with regards to any recycling or waste diversion.

In the absence of any other individual arrangement with the waste personnel, residents (and their contractors) would be responsible for the immediate removal and disposal off-site of any waste unsuitable for placement in the bins. This would include large bulky waste and electronic items and waste from any building maintenance activities.

It is envisaged that the development of a Waste Minimisation Plan mentioned above would include the production of educational literature suitable for residents (including for inductions) and recommendations for signage relevant to the internal function of the bin store and waste management facilities.

6 REFERENCES

- City of Melbourne: *Waste Generation Rates 2015*
- City of Joondalup: *Draft Guidelines for Waste Management Plan in New Developments 3* (under development)
- WALGA: *Commercial and Industrial Waste Management Plan Guidelines*

Briefing Note

To:	City of Melville (City)	From:	Planning Solutions
Attention:	Ben Ashwood, Senior Planner	Job No:	7264
Copy to:		Date:	10 June 2021
Subject:	Bulk waste storage requirements for Strata Lot 2 (25) The Esplanade, Mount Pleasant (subject site)		

The City has requested additional information regarding the proposed residential bulk and green organic waste accommodation for the multiple dwelling development proposed at the subject site. The development is able to incorporate a bulk waste storage requirement of 6m². It is proposed that the particulars of bulk and green organic waste storage for the proposed development will be addressed at the detailed design phase. The two potential design solutions are as follows:

Option 1 (first preference)

The applicant's first preference is to adjust the western wall of the bin store as detailed on Drawing No. A201 as 'BIN ST. + BIN TUG' to create sufficient additional space to incorporate the required bin storage area. Preliminary advice from the project architect is that the service area is likely to be surplus to needs.

This would require the relocation of the western wall of the bin store by approximately 1.85m to the west to create a 6m² storage area. The intention would be to maintain a wall between the existing proposed bin store and bulk and green organic waste storage area, with the bulk and green organic waste storage access through a roller door separating the two spaces.

Option 2 (second preference)

If during the detailed design phase this space is required for building services, the storeroom detailed on Drawing No. A201 as 'ST', located adjacent to the fire escape stairs, opposite the bicycle racks will be utilised. This storeroom has an area of approximately 7.90m² which is sufficient to accommodate the bulk and green organic waste requirement of the development.

Option 1 and 2 are shown in **Figure 1** below.

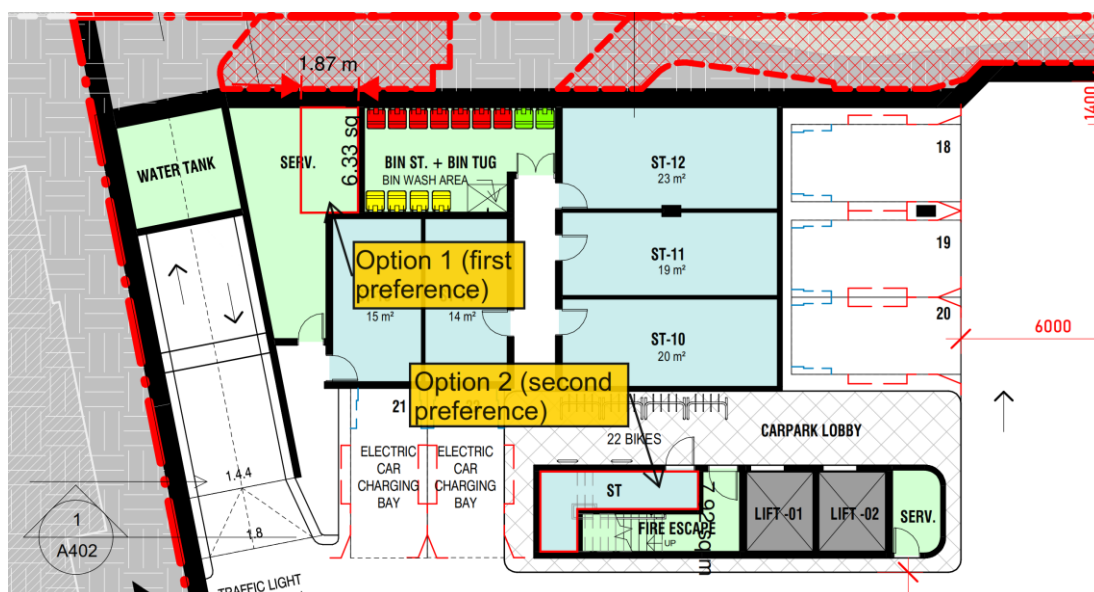


Figure 1: Except of Drawing No. A201 showing the potential design solutions