

WASTE MANAGEMENT ASSESSMENT REFERRAL

Application Number	SSD (State Significant Development)
Site Address	19A Evans Avenue Eastlakes

☐ **SUPPORTED**

- ☐ STANDARD CONDITIONS OF CONSENT
- ☐ SPECIAL CONDITIONS
- ☐ NO CONDITIONS

☒ **NOT SUPPORTED**

- ☒ FURTHER INFORMATION REQUIRED
- ☐ NO RE-REFERRAL REQUIRED

1. Proposal

The proposal is for Construction of a mixed-use development comprising of two storey podium containing speciality retail and commercial tenancies on ground level and second level, with four x 14 to 18 storey residential buildings. The development includes communal open space as well as 1223 parking spaces within four levels of basement. The proposal comprises of a total of 736 dwellings, inclusive of 74 affordable dwellings, 521 market housing and 215 Build-to-Rent (BTR) dwellings. Some dwellings will function as dual key units which could increase the total number of dwellings to 877.

2. Documents Referenced

- CM 26/204119: Operational and Construction Waste Management Plan
- CM 26/205010: Architectural Plans
- CM 26/204119: Loading Dock Management Plan
- Waste Management and Technical Specification 2022

3. Demolition Phase Waste Plan

- The applicant will need to provide a demolition phase waste plan referencing all waste streams along with estimated volumes and include recognised processing facilities as part of the development application.
- The applicant will also need to indicate how the treatment and disposal of any hazardous materials will be managed.
- This can be managed via conditions of consent.

4. Construction Phase Waste Plan

- The applicant will need to provide a construction phase waste plan referencing all waste streams, estimated quantities and recognised recycling and disposal facilities.
- This can be managed via conditions of consent.

5. Ongoing Waste Plan

The submitted Operational Waste Management Plan has been reviewed against Bayside Council's Waste Management Technical Specification 2022.

The development application describes a total of 736 dwellings where each dual-key dwelling is counted as a single dwelling. However, where the individual components of the proposed dual-key dwellings are separately occupied, the development may accommodate up to 877 dwellings.

For waste assessment purposes, Council has adopted the maximum potential development yield of **877 independently occupiable dwellings**. All residential waste generation, bin provision, waste storage, chute infrastructure, bin transfer and collection arrangements must therefore be designed to accommodate 877 dwellings.

Council has similarly adopted the maximum non-residential development yield identified in the application, comprising:

- 3,745.4m² of supermarket gross floor area;
- 18,118.6m² of other retail and commercial gross floor area; and
- a childcare centre with capacity for 75 children.

This results in a total assessed non-residential gross floor area of approximately **21,864m²**.

Council notes that the submitted Operational Waste Management Plan and Loading Dock Management Plan contain inconsistent dwelling numbers, childcare capacities and non-residential floor areas. The Operational Waste Management Plan assesses 877 dwellings, while the Loading Dock Management Plan assesses servicing demand based on 736 dwellings. The Operational Waste Management Plan also accounts for only approximately 16,540.3m² of non-residential floor area, leaving approximately 5,323.7m² of the proposed non-residential floor area unaccounted for.

These inconsistencies must be corrected in the amended documentation. However, Council has proceeded with its assessment using the maximum development yield to ensure that the proposed waste management system is appropriately designed for the greatest potential occupancy and waste generation.

While the overall waste management strategy, building layout and on-site servicing arrangements are generally well considered, several aspects of the proposal do not comply with Council's current Waste Management Technical Specification and require amendment before support can be provided.

The applicant is to address the following matters and submit an amended Operational Waste Management Plan, Loading Dock Management Plan and supporting architectural plans.

Council requires residential multi-unit developments to be designed to accommodate Council's residential waste collection service. Private residential collection will only be considered by exception where the applicant clearly demonstrates that all reasonable options for Council servicing have been fully investigated and cannot be achieved.

5.1 Residential Waste Generation Calculations

The applicant has adopted residential waste generation rates that do not comply with Bayside Council's Waste Management Technical Specification 2022.

The submitted Operational Waste Management Plan applies the following residential generation rates:

- General Waste – 120 litres per dwelling per week; Council requires 240L per dwelling per week (prior to food organics diversion)
- Recycling – 120 litres per dwelling per week; and
- Food Organics and Garden Organics – 25 litres per dwelling per week. Council requires 72L per week, which is approximately 30% of the required 240l general waste generation per dwelling per week

The plan then applies a 2:1 compaction ratio to the already reduced General Waste generation rate. This results in a calculated compacted General Waste volume of 52,620 litres per week for the 877 dwellings. The plan proposes 46 × 660L General Waste bins collected twice weekly, 100 × 1,100L Recycling bins collected weekly and 96 × 240L organics bins collected weekly.

These calculations significantly understate the required Food Organics and Garden Organics capacity and do not correctly apply Council's residential waste generation requirements.

Council's residential waste generation rates are based on the introduction of the NSW Government's mandated Food Organics collection service. Under this system, Food Organics are collected separately and diverted from the General Waste stream.

Bayside Council's residential waste composition audits determined that approximately 30% of the standard residential General Waste stream consists of recoverable food organics. Council has therefore adopted a Food Organics generation rate of 72 litres per dwelling per week, representing 30% of the standard General Waste generation rate of 240 litres per dwelling per week.

The Food Organics component is deducted from the standard General Waste generation rate to determine the adjusted General Waste volume requiring disposal.

The applicable generation rates and weekly waste volumes for the maximum development yield of 877 dwellings are:

Waste Stream	Generation Rate	Weekly Generation
General Waste Base Generation	240L/dwelling/week	210,480
Food Organics	72/dwelling/week	63,144L
Adjusted General Waste Generation	168L/dwelling/week	147,336L
Recycling	120L/dwelling/week	105,240L
Garden Organics	24L/dwelling/week	21,048L

Table 1 – Residential Waste Generation Rates

Where a 2:1 General Waste compaction system is proposed, the adjusted General Waste volume of 147,336 litres per week may be reduced to an operational storage volume of **73,668 litres per week**, subject to the applicant demonstrating that:

- the nominated compaction equipment is capable of consistently achieving a maximum 2:1 compaction ratio;
- General Waste is the only waste stream compacted;
- the proposed bins and equipment are compatible with the compaction system;
- bin weights remain within safe collection and handling limits;
- the waste rooms provide adequate space for the complete compaction and chute discharge system; and
- manufacturer specifications and operational details are submitted with the amended Operational Waste Management Plan.

It should be noted Council **does not support compaction of general waste in 660L or 1,100L bins**. The weight of the compacted waste often exceeds the lifting capacity of the collection vehicle and/or causes bins to split when being emptied due to excessive weight.

These bins are also too heavy, once compacted, for staff to safely manoeuvre and present for collection.

No compaction allowance may be applied to Recycling, Food Organics or Garden Organics.

The proposed combined organics generation rate of 25 litres per dwelling per week is not supported. Based on Council's requirements, the development must provide capacity for:

- **63,144 litres of Food Organics per week;** and
- **21,048 litres of Garden Organics per week.**

The submitted proposal provides 96 × 240L organics bins, providing a total weekly capacity of 23,040 litres. This capacity is sufficient only for the consultant's significantly reduced combined organics generation rate and provides less than one-third of the Food Organics and Garden Organics capacity required by Council.

The Operational Waste Management Plan also states that Council does not currently provide an active Food Organics service and that the proposed organics bins have been included only as provision for a future service. This statement is no longer correct and must be removed.

The applicant must amend all residential waste calculations to:

- adopt a maximum residential yield of 877 dwellings;
- apply Council's adopted residential waste generation rates;
- calculate Food Organics and Garden Organics as separate waste streams;
- apply any proposed General Waste compaction only after Food Organics have been deducted from the base General Waste volume;
- identify the uncompacted and compacted General Waste volumes;
- provide evidence supporting the proposed compaction ratio;
- recalculate the required bin numbers using Council's standard collection frequencies; and
- update the waste room, chute discharge, transfer, temporary holding and collection arrangements accordingly.

5.2 Indicative Residential Bin Requirements and Collection Frequency

Council's standard residential collection frequencies for multi-unit developments are:

- General Waste – twice weekly;
- Recycling – once weekly;
- Food Organics – once weekly; and
- Garden Organics – once weekly.

Private residential waste collection will only be considered by exception where the applicant clearly demonstrates that all reasonable options for Council servicing have been fully investigated and cannot be achieved.

Applicants must not rely on increased collection frequencies to reduce the number of bins or the size of the permanent waste storage areas. Bin requirements must be determined using Council's standard residential collection frequencies.

As discussed in Section 5.1, Council does not support the compaction of General Waste into 660L or 1,100L Mobile Garbage Bins. Where General Waste compaction is proposed, Council will only support compaction into 240L bins, subject to the applicant demonstrating compliance with the manufacturer's specifications and that the resulting bin weights remain within safe operational limits.

Alternatively, the applicant may nominate an uncompacted 1,100L General Waste bin system.

Based on the corrected residential waste generation rates for the maximum development yield of 877 dwellings, the indicative minimum residential bin requirements are as follows:

Waste Stream	Weekly Generation	Collection Frequency	Volume per Collection	Option 1: With Compaction	Option 2: Without Compaction 1,100L
Adjusted General Waste	147,336L	Twice Weekly	73,668 (<i>uncompacted</i>)	154 x 240L bins after 2:1 Compaction	67 x 1,100L Bins
Recycling	105,240L	Once Weekly	105,240L	439 x 240L	96 x 1,100L Bins
Food Organics	63,144L	Once Weekly	63,144L	264 x 240L Bins	96 x 660L *
Garden Organics	21,048L	Once Weekly	21,048L	88 x 240L Bins	-

Table 2 – Indicative Bin Requirements and Collection Frequency

**For a development of this size Council would consider using 660L bins for food organics*

The indicative General Waste requirements have been calculated as follows:

Option 1 – 240L General Waste Bins with 2:1 Compaction

- Weekly adjusted General Waste generation: **147,336 litres**
- General Waste generated between collections: **73,668 litres**
- Operational storage volume following 2:1 compaction: **36,834 litres**
- Required bins: **$36,834L \div 240L = 153.5$ bins**, rounded up to **154 x 240L bins**

Option 2 – 1,100L General Waste Bins without Compaction

- General Waste generated between collections: **73,668 litres**
- Required bins: **$73,668L \div 1,100L = 66.97$ bins**, rounded up to **67 x 1,100L bins**

Council considers the uncompacted 1,100L General Waste option likely to provide the most practical outcome for a development of this scale, as it significantly reduces the number of bins requiring storage, handling and presentation for collection.

Similarly, the use of 1,100L bins for Recycling is likely to provide the most space-efficient outcome. However, where 1,100L bins are proposed, the applicant must demonstrate compliance with Bayside Council's Waste Management Technical Specification 2022, including:

- a maximum manual carting distance of **5 metres**;
- a maximum carting gradient of **1:30**;
- a direct, hard-surfaced, non-slip and step-free carting route;
- adequate manoeuvring and turning space;
- compliant doorway and circulation widths;
- safe access for collection staff; and
- compatibility with Council's collection vehicles and lifting equipment.

For developments of this size, Council would also support the use of **660L Food Organics bins**, provided the Operational Waste Management Plan demonstrates that:

- the larger bins can be safely manoeuvred;
- the carting route complies with Council's maximum manual handling requirements;
- a suitable mechanical bin lifter is provided where required;
- adequate space is available for Food Organics transfer and decanting operations; and
- sufficient contingency bins are provided to maintain uninterrupted Food Organics services during collection.

The indicative bin numbers presented above represent the **minimum service provision only** and do not include:

- bins required beneath General Waste and Recycling chutes during collection;
- Food Organics bins located on each residential level;
- replacement and contingency bins;
- bins servicing residential common areas;
- damaged-bin contingency;
- additional operational bins required during bin transfer between chute discharge rooms and the central holding area; or
- the footprint of compactors, track systems, carousel systems, bin lifters or other operational waste handling equipment.

Bins that remain beneath chute discharge systems or within residential disposal areas form part of the operational waste management system and cannot be deducted from the minimum service bin requirements.

The amended Operational Waste Management Plan must nominate a final residential bin configuration and demonstrate:

- the number and size of bins allocated to each residential building and core;
- the number of bins permanently required beneath each chute;
- the number of operational, service and contingency bins;
- the location and operation of any proposed General Waste compaction equipment;
- the distribution of Food Organics bins throughout the residential levels;
- the provision of Garden Organics capacity;
- the permanent storage capacity within each waste room;
- the temporary holding capacity required during collection; and
- how all bins will be transferred, presented and returned without interrupting residents' access to waste disposal facilities.

5.3 Residential Waste Storage Area

Council's Waste Management Technical Specification 2022 requires residential waste storage areas to be appropriately sized and capable of accommodating the full number of bins and all operational equipment required to service the development.

The permanent waste storage capacity must be calculated using Council's standard collection frequencies. Temporary holding rooms, collection staging areas and loading dock presentation areas cannot be counted toward the permanent waste storage capacity, as these areas are intended only for short-term use during collection.

The applicant has distributed residential waste infrastructure across nine residential cores and proposes a combination of chute discharge rooms, carousel and linear track systems, General Waste compactors, Food Organics rooms, bulky waste rooms and a central residential bin holding room.

The submitted Operational Waste Management Plan states that the chute discharge equipment has been designed to accommodate approximately two days of General Waste and Recycling generation for each residential core. It nominates the following equipment:

- one 2-bin 660L General Waste linear track system with compactor;
- six 3-bin 660L General Waste linear track systems with compactors;
- two 4-bin 660L General Waste carousel systems with compactors;
- five 3-bin 1,100L Recycling linear track systems;
- four 4-bin 1,100L Recycling carousel systems; and
- one suitable bin-moving device.

As identified in Section 5.2, Council will not support compaction into 660L or 1,100L bins. The chute discharge equipment will therefore require redesign to accommodate either:

- 240L General Waste bins compacted at a maximum ratio of 2:1; or
- uncompacted 1,100L General Waste bins.

The applicant must obtain supplier specifications for the revised system and demonstrate that the equipment can be accommodated within each chute discharge room.

Bin footprint requirements

All residential waste storage calculations must use the following Council bin footprints, inclusive of an allowance for maneuverability:

Bin Size	Height	Depth	Width	Bin Footprint	Buffer for Maneuverability	Total Footprint Per Bin
240L	1080mm	735mm	580mm	0.43sqm	0.22sqm	0.65sqm
660L	1250mm	850mm	1370mm	1.16sqm	0.58sqm	1.74sqm
1,100L	1330mm	1070mm	1240mm	1.32sqm	0.59sqm	2.01sqm

Table 3 – Bin footprints

Based on the indicative bin requirements identified in Section 5.2, the indicative permanent bin storage requirements are as follows.

Chute discharge equipment allowance

The Operational Waste Management Plan provides the following estimated chute discharge room requirements:

Residential Core	Proposed Chute Discharge	Estimated Area
Building A – Core 1 West	4-bin General Waste carousel and 4-bin Recycling carousel	46m ²

Building A – Core 2 East	3-bin General Waste linear system and 4-bin Recycling carousel	35m ²
Building B	3-bin General Waste linear system and 4-bin Recycling carousel	35m ²
Building C – Core 1 North	3-bin General Waste linear system and 3-bin Recycling linear system	27m ²
Building C – Core 2 South	3-bin General Waste linear system and 3-bin Recycling linear system	27m ²
Building D – Core 1 Northwest	4-bin General Waste system and 4-bin Recycling carousel	46m ²
Building D – Core 2 Southwest	3-bin General Waste linear system and 3-bin Recycling linear system	27m ²
Building D – Core 3 Northeast	3-bin General Waste linear system and 3-bin Recycling linear system	27m ²
Building D – Core 4 Southeast	2-bin General Waste linear system and 3-bin Recycling linear system	27m ²
Total Chute Discharge Equipment Allowance		297m²

Table 4 – Submitted Chute Discharge Equipment Allowance

The above areas have been adopted as a preliminary indicative allowance only. They are based on the consultant's proposed 660L compacted General Waste system, which is not supported by Council. The applicant must submit revised manufacturer specifications and dimensioned layouts for the selected 240L compacted or 1,100L uncompacted system.

The Operational Waste Management Plan also requires a bin-moving device because the proposed bin-transfer routes exceed 10 metres. Council has therefore included a minimum allowance of **2m²** for the storage and charging of a bin tug or equivalent bin-moving equipment. The final area must be confirmed through the selected equipment supplier. The OWMP acknowledges that a bin mover, bin lifters and potentially bin trailers or bin hitches will be required to move full bins through the development.

Option 1 – 240L General Waste Bins with 2:1 Compaction/240L Food Organics Bins

Waste Stream	Bin Count	Individual Bin Footprint	Minimum Storage Area
Compacted General Waste	154x 240L	0.65 m ²	100.10m ²
Recycling	96 x 1,100L	2.01m ²	192.96m ²
Food Organics	264 x 240L	0.65 m ²	171.60m ²
Garden Organics	88 x 240L	0.65 m ²	57.20m ²
Chute Discharge System	9 Residential Cores		297.00 ²
Bin Tug or Equivalent	Minimum allowance		2.00m ²
MINIMUM RESIDENTIAL STORAGE REQUIREMENTS	820.86m²		

Table 5 – Indicative Storage Requirements 240L Bins

Option 2 – Uncompacted 1,100L General Waste Bins/660L Food Organics Bins

Waste Stream	Bin Count	Individual Bin Footprint	Minimum Storage Area
General Waste	67 x 1,100L	2.01 m ²	134.67m ²
Recycling	96 x 1,100L	2.01 m ²	192.96m ²
Food Organics	96 x 660L	1.74 m ²	167.04m ²
Garden Organics	88 x 240L	0.65 m ²	57.20m ²
Chute discharge systems	Nine residential cores		297.00 ²
Bin Tug	Minimum allowance		2.00m ²
MINIMUM RESIDENTIAL STORAGE REQUIREMENTS	850.87m²		

Table 6 – Indicative Storage Requirements Uncompacted General Waste with Larger Bins

Important: The minimum storage areas identified above do not include the Food Organics bins required on each residential level. Residents must have convenient access to Food Organics disposal facilities on every residential level by way of a 240L Food Organics bin located within a cupboard or enclosure adjacent to each General Waste and Recycling chute. Residents must not be required to travel to another level or to a basement waste room to dispose of Food Organics.

The applicant must also provide sufficient contingency 240L Food Organics bins within the permanent waste storage areas so that full bins from each residential level can be exchanged without interrupting access to the Food Organics service. The storage footprint of these contingency bins must be added to the minimum residential storage requirements shown above.

Where the applicant selects the larger-bin option incorporating 660L Food Organics bins, a suitable bin lifter must also be provided to enable the contents of the residential-level 240L Food Organics bins to be safely decanted into the 660L service bins. The storage and operating footprint of the bin lifter, including all required clearances, must be included within the waste storage calculations. The amended Operational Waste Management Plan must identify the bin lifter model, location, operating area and safe transfer procedure.

These calculations represent the minimum combined area for service bins, the chute discharge systems estimated in the submitted Operational Waste Management Plan and one bin-moving device.

They do not include additional space required for:

- Food Organics bins provided on each residential level;
- replacement bins required when full residential-level bins are exchanged;
- bins that must remain operational beneath each chute during collection;
- contingency bins for damaged, contaminated or unavailable bins;
- additional bin tugs, trailers or bin lifters where one device is insufficient to service the development;
- charging infrastructure and clearances for mechanical equipment;
- bin washing and wash-down facilities;
- access aisles beyond the standard bin manoeuvrability allowance;
- doors, columns, fire services, drainage, plant or other building infrastructure;
- safe separation between waste streams; or
- temporary holding and collection staging capacity.

The submitted chute equipment allowance of 297m² must not be interpreted as approval of the proposed equipment. The applicant's calculations are based on compacted 660L General Waste bins and must be revised. Any change to the bin sizes or chute discharge equipment may increase the required equipment footprint.

The applicant must submit a separate dimensioned waste storage schedule for each residential building and core identifying:

- the number of dwellings serviced by each core;

- weekly generation by waste stream;
- the number and size of service bins allocated to each core;
- the number of bins permanently located beneath each chute;
- the number of residential-level Food Organics bins;
- replacement and contingency bins;
- the selected chute discharge, compaction, carousel or linear track equipment;
- the equipment footprint and required operating clearances;
- the location and storage area for bin tugs, trailers and bin lifters;
- the actual unobstructed internal floor area of each waste room; and
- the temporary holding capacity required on each collection day.

A dimensioned layout must be provided for every residential waste room demonstrating that all bins and equipment can be accommodated simultaneously and that each bin and item of equipment can be safely accessed and manoeuvred without moving unrelated bins into corridors, loading areas, fire egress paths or vehicle circulation areas.

The amended Operational Waste Management Plan and architectural plans must demonstrate that the cumulative permanent residential waste storage provided across the development meets or exceeds:

- **820.86m² for the 240L compacted General Waste option; or**
- **850.87m² for the uncompacted 1,100L General Waste and 660L Food Organics option,**

plus the storage area required for 240L Food Organics bins adjacent to every residential chute, contingency bins to replace full residential-level Food Organics bins, any required bin lifter and its operating clearances, additional chute service bins, replacement bins, bin-moving equipment and all other unobstructed operational and circulation space not included in the above calculations.

5.4 Residential Bin Carting Route:

The residential chute discharge rooms and Food Organics storage areas are located on Basement Level 3, while the residential bin holding and collection area is located at ground-floor level adjacent to the loading dock.

The Operational Waste Management Plan states that building management will transfer full General Waste, Recycling and Food Organics bins from their operational locations to the ground-floor residential bin holding

room before collection and return the emptied bins after servicing. Additional service bins are proposed beneath the chutes so that the waste system can remain operational while collection bins are removed.

The submitted plan does not, however, provide sufficient detail to demonstrate how the substantial number of bins identified in Sections 5.2 and 5.3 will be safely transferred from Basement Level 3 to the ground-floor holding room.

Council's Waste Management Technical Specification 2022 requires bin carting routes to comply with the following:

- bins up to 360L must not be manually carted more than 30 metres;
- bins between 360L and 1,100L must not be manually carted more than 5 metres;
- the route must be direct, continuous and wholly within the property boundary;
- the route must be hard-surfaced, non-slip and free of steps, kerbs and other obstructions;
- the route must have a minimum clear width of 2 metres;
- the maximum gradient is 1:14 for bins up to 360L; and
- the maximum gradient is 1:30 where 660L or 1,100L bins are used.

The Operational Waste Management Plan acknowledges that the proposed bin-transfer routes exceed 10 metres and that mechanical bin-moving equipment will be required. It recommends that the developer obtain specialist advice regarding a bin tug, trailer or tractor and notes that bins may require hitch attachments to enable multiple bins to be transported simultaneously.

The general statement that a bin mover will be provided is insufficient for a development of this scale. The amended Operational Waste Management Plan and architectural plans must clearly document the complete bin carting route from every residential chute discharge room and Food Organics storage area to the ground-floor residential bin holding room.

The plans must identify:

- the exact carting route from each of the nine residential cores;
- the horizontal distance of each route;
- all changes in level;
- the gradient of every ramped section;
- the minimum clear width and vertical clearance;
- all doorways, gates, corridors and turning points;
- any lifts, hoists, ramps or other vertical transport systems used;

- the route from the ground-floor holding room to the collection vehicle;
- any locations where bins must cross pedestrian, resident, retail, delivery or vehicle circulation paths; and
- the return route followed after collection.

Where lifts or bin hoists are required to transfer bins between Basement Level 3 and ground level, the applicant must provide specifications demonstrating:

- the internal dimensions and clear door opening;
- the maximum safe working load;
- the ability to accommodate the largest proposed bin together with the selected bin tug or operator;
- the number and size of bins capable of being transferred during each trip;
- suitable protection to the lift walls, doors and floor;
- priority access for waste operations before and after collection;
- that the lift is not relied upon for simultaneous resident, retail or goods movements during waste transfer;
- the location and dimensions of waiting areas at each lift level; and
- a contingency procedure if the lift or hoist is unavailable.

The applicant must also provide a detailed bin-transfer assessment demonstrating the number of movements required for each collection event. This assessment must be based on the selected bin configuration and must consider, at a minimum:

- 154 compacted 240L General Waste bins or 67 uncompacted 1,100L General Waste bins;
- 96 × 1,100L Recycling bins;
- 264 × 240L Food Organics bins or 96 × 660L Food Organics bins;
- 88 × 240L Garden Organics bins;
- the return of all emptied bins following collection; and
- the transfer of service and contingency bins required to maintain operation beneath the chutes and on residential levels.

The assessment must identify:

- the carrying capacity of the selected bin tug and trailer;

- the number of trips required between each waste room and the holding area;
- the estimated time required to stage all bins;
- the estimated time required to return all bins;
- the number of staff required;
- how bins will be prevented from obstructing corridors, lifts, loading areas or vehicle routes during staging; and
- how waste services will remain operational throughout the transfer process.

A single handheld bin tug may not be sufficient to service 877 dwellings distributed across nine residential cores. The applicant must obtain advice from a suitably qualified equipment supplier and determine whether multiple bin tugs, trailers, ride-on towing equipment, bin lifters or other mechanical aids are required.

Where 660L Food Organics bins are selected, the bin carting arrangement must also include the transfer of residential-level 240L Food Organics bins to a nominated decanting location. A suitable bin lifter must be used to empty the 240L bins into the 660L service bins. The applicant must demonstrate that:

- the bin lifter is located on a level, appropriately drained and ventilated surface;
- sufficient operating clearance is available around the lifter;
- full 240L and 660L bins can be safely positioned and removed;
- the transfer operation does not obstruct access to other bins or equipment;
- spills can be contained and cleaned;
- staff are not required to manually lift or tip full Food Organics bins; and
- the decanting process can be completed without interrupting resident access to Food Organics facilities.

The bin carting route must not rely on bins being manually wheeled for distances exceeding Council's requirements merely because a mechanical aid is proposed. The selected bin-moving equipment, towing arrangement and route must be assessed as one integrated system, with manufacturer confirmation that the equipment can safely negotiate all gradients, turns, doorways, lifts and surface transitions.

The applicant must submit:

- dimensioned bin carting route plans for Basement Level 3 and ground level;
- longitudinal sections showing all gradients and changes in level;
- swept-path or tracking diagrams for the selected bin tug and trailer;

- specifications for all lifts, hoists, bin tugs, trailers and bin lifters;
- a detailed collection-day transfer schedule;
- a manual-handling and operational risk assessment; and
- a contingency procedure for equipment failure, lift failure or obstruction of the nominated route.

Until this information is provided, Council cannot confirm that the proposed residential bins can be safely and practically transferred between the nine Basement Level 3 waste areas and the ground-floor collection point.

5.5 Residential Bulky Waste Storage:

Bayside Council's Waste Management Technical Specification 2022 requires all multi-unit residential developments to provide dedicated bulky waste storage facilities for items that cannot be disposed of through the standard residential waste streams.

For developments containing more than 40 dwellings, the minimum bulky waste storage requirement is calculated as:

- 12m² for the first 40 dwellings; plus
- 3m² for every additional 10 dwellings (or part thereof).

Based on the maximum residential yield of **877 dwellings**, the minimum bulky waste storage requirement is therefore:

Calculation	Area
First 40 dwellings	12m ²
Remaining 837 dwellings (84 × 3m ²)	252m ²
Minimum bulky waste storage required	264m²

Table 7 – Minimum Residential Bulky Waste Storage Requirement

The Operational Waste Management Plan proposes dedicated bulky waste rooms within each residential building comprising:

Building	Proposed Area
Building A	67m ²
Building B	34m ²
Building C	57m ²

Building D	107m ²
Total Proposed Area	265m²

Table 8 – Proposed Residential Bulky Waste Storage Requirement

Council notes that the combined bulky waste storage area of **265m²** marginally exceeds the minimum requirement of **264m²** and is therefore supported in principle. The distribution of bulky waste rooms throughout the development is also considered appropriate, as it provides residents of each building with convenient access to a dedicated storage facility and is likely to reduce inappropriate disposal of bulky items within common areas.

Notwithstanding, the applicant must demonstrate that each bulky waste room complies with Bayside Council's Waste Management Technical Specification 2022.

Each bulky waste room must:

- be readily accessible to residents of the building it serves;
- be located on the same level as the primary residential waste storage area where practicable;
- provide a minimum clear doorway width of 2.0 metres;
- provide a minimum clear ceiling height of 4.0 metres;
- provide a direct, unobstructed carting route to the collection point;
- be capable of accommodating bulky waste collections without obstructing access to residential waste bins;
- provide adequate circulation space for the safe movement of bulky items;
- include appropriate ventilation, lighting and drainage;
- include signage identifying acceptable bulky waste materials; and
- provide dedicated areas for the separation of recyclable bulky materials, including cardboard, e-waste, mattresses, whitegoods, furniture, gas bottles and other recoverable items where appropriate.

The applicant must also demonstrate how bulky waste will be transferred from each of the four bulky waste rooms to the nominated collection point.

The amended Operational Waste Management Plan must identify:

- the collection frequency;
- responsibility for transferring bulky waste;
- any mechanical equipment required;

- the nominated transfer route;
- temporary holding arrangements on collection day;
- how residents will access the service; and
- procedures to prevent illegal dumping outside the nominated bulky waste rooms.

The architectural plans should also clearly dimension each bulky waste room and demonstrate compliance with Council's minimum access, clearance and manoeuvring requirements.

5.6 Commercial Waste Generation:

The commercial waste generation assessment contained within the Operational Waste Management Plan requires substantial revision.

The submitted plan identifies:

- 632.9m² for the Panetta delicatessen;
- 12,162m² of other retail and commercial floor area;
- a 75-place childcare centre; and
- a 3,745.4m² supermarket.

However, the maximum development yield adopted by Council for this assessment comprises:

- **3,745.4m² supermarket;**
- **18,118.6m² remaining retail and commercial floor area;**
- **75-place childcare centre;** and
- **21,864m² total non-residential gross floor area.**

Accordingly, the Operational Waste Management Plan has assessed a substantially smaller commercial floor area than that proposed under the maximum development yield adopted by Council.

The consultant has also divided the generic retail and commercial floor area equally between retail shops, cafés and offices. The report acknowledges that this division has been undertaken as an allowance for future tenancies and assumes that all commercial tenants will share waste storage facilities, bins and collection services.

Council has adopted the consultant's proportional split for the purposes of this assessment only. This should not be interpreted as Council's acceptance of the final tenancy mix, which must be confirmed as part of a future amended Operational Waste Management Plan.

Council does not support this methodology as a final waste assessment, as waste generation varies significantly depending on the actual land use of each tenancy. Nevertheless, for the purposes of assessing the adequacy of the proposed waste infrastructure at the Development Application stage, Council has adopted the same proportional split across the maximum commercial floor area. A detailed tenancy-by-tenancy assessment will be required prior to construction once the final tenancy schedule has been confirmed.

Commercial Food Organics

Bayside Council's Waste Management Technical Specification 2022 does not presently contain commercial Food Organics generation rates.

To support the implementation of the NSW EPA's Commercial Food Organics Collection requirements, Council has undertaken physical waste audits across a range of food-generating businesses throughout the Bayside Local Government Area. These audits examined the composition of General Waste bins to determine the proportion of material that could reasonably be diverted into a dedicated Food Organics collection service.

The audit results are applied as **Food Organics diversion percentages**, rather than additional waste generation. Council therefore calculates the total General Waste volume using the applicable waste generation rate, applies the audited diversion percentage to determine the recoverable Food Organics component, and then deducts that volume from the residual General Waste stream.

For the purposes of this assessment, Council has applied the audited diversion rates most closely aligned with the proposed food-generating land uses within the development. These represent the best available local evidence of expected Food Organics generation and will continue to be used by Council until formal commercial Food Organics generation rates are incorporated into the Waste Management Technical Specification.

Until commercial Food Organics generation rates are formally incorporated into Bayside Council's Waste Management Technical Specification, Council considers its locally derived waste audit data to represent the most accurate evidence of expected commercial Food Organics generation within the Bayside Local Government Area.

Premises type	Relevant audit category	Indicative Food Organics diversion from General Waste
Butcher	Food retail	68%
Delicatessen	Food retail	68%
Fish shop	Food retail	68%
Fruit and vegetable shop	Food retail	68%
Supermarket	Food retail	68%

Restaurant	Cafés and restaurants	55%
Takeaway food shop	Cafés and restaurants	55%
Café	Cafés and restaurants	55%
Licensed premises	Food retail	68%

Table 9 – Commercial Food Organics Audit Findings

For the indicative assessment of this development, Council has applied:

- **68%** to the supermarket and Panetta delicatessen;
- **55%** to cafés and food premises;
- **28%** to non-food retail premises; and
- **33%** to office and commercial premises.

Council's audit program does not presently provide a specific diversion percentage for childcare centres. The consultant's nominated Food Organics rate of 1.25L per child per day has therefore been retained provisionally for the childcare component, subject to confirmation within the amended Operational Waste Management Plan.

Base Commercial Waste Generation

The following base generation rates have been adopted from the rates used within the submitted Operational Waste Management Plan.

Land use	Assessment yield	Base General Waste	Recycling
Retail shops	5,828.6m ²	20,400L/week	20,400L/week
Cafés and food premises	5,828.6m ²	32,640L/week	16,320L/week
Offices and commercial premises	5,828.6m ²	61,200L/week	40,800L/week
Panetta delicatessen	632.9m ²	3,544L/week	1,772L/week
Childcare centre	75 children	1,875L/week	1,875L/week
Total excluding supermarket		119,659L/week	81,167L/week

Table 10 – Indicative Base Commercial Waste Generation

Food Organics Diversion and Adjusted General Waste

Council's audited diversion percentages have then been applied to the base General Waste volumes.

Land use	Base General Waste	FO diversion rate	Food Organics diverted	Adjusted General Waste
Retail shops	20,400L	28%	5,712L	14,688L
Cafés and food premises	32,640L	55%	17,952L	14,688L
Offices and commercial premises	61,200L	33%	20,196L	41,004L
Panetta delicatessen	3,544L	68%	2,410L	1,134L
Childcare centre	1,875L	Specific rate retained	469L	1,406L
Total excluding supermarket	119,659L		46,739L	72,920L

Table 11 – Indicative Commercial Food Organics Diversion

Accordingly, the non-supermarket commercial component is indicatively expected to require capacity for approximately:

- **72,920L of residual General Waste per week;**
- **81,167L of Recycling per week; and**
- **46,739L of Food Organics per week.**

The diversion calculation does not reduce the overall quantity of waste generated. It separates the recoverable Food Organics component from the General Waste stream so that it can be collected and processed separately.

Supermarket Waste Generation

The submitted Operational Waste Management Plan calculates that the 3,745.4m² supermarket will generate:

- 173,037L of General Waste per week before compaction; and
- 62,923L of Recycling per week.

Council's commercial waste audits indicate that supermarkets and other food retail premises can typically divert approximately **68% of their existing General Waste stream** into a Food Organics service.

Applying this audited diversion rate gives:

$$173,037L \times 68\% = 117,665L$$

The resulting indicative supermarket waste streams are therefore:

- **Food Organics: 117,665L per week;**
- **adjusted General Waste: 55,372L per week; and**
- **Recycling: 62,923L per week.**

This is substantially different from the consultant's proposed Food Organics allowance of 34,607L per week. The consultant's calculation represents approximately 20% of the base supermarket General Waste volume, whereas Council's physical commercial waste audits indicate that approximately 68% may be suitable for Food Organics diversion.

The amended Operational Waste Management Plan must review the supermarket waste system using Council's audited diversion rate or provide a detailed operator-specific waste audit and waste composition assessment justifying an alternative rate.

Total Indicative Commercial Waste Generation

Commercial component	Adjusted General Waste	Recycling	Food Organics
Retail, commercial, Panetta and childcare	72,920L/week	81,167L/week	46,739L/week
Supermarket	55,372L/week	62,923L/week	117,665L/week
Total Commercial Development	128,292L/week	144,090L/week	164,404L/week

Table12 – Total Commercial Waste Generation Following Food Organics Diversion

The commercial component is therefore indicatively expected to require capacity for approximately:

- **128,292L of residual General Waste per week;**
- **144,090L of Recycling per week; and**
- **164,404L of Food Organics per week.**

The combined General Waste and Food Organics volumes remain approximately equivalent to the original base General Waste generation. The calculations reflect diversion from landfill rather than the creation of an additional waste stream.

Final Tenancy-by-Tenancy Assessment

The above calculations provide an indicative design basis only. They cannot replace a detailed assessment of the final tenancy mix.

The amended Operational Waste Management Plan must identify, for every commercial tenancy:

- tenancy number and location;
- proposed land use;
- gross floor area;
- relevant Council waste generation rate;
- base General Waste generation;
- applicable Council Food Organics diversion percentage;
- adjusted General Waste generation;
- Food Organics generation;
- Recycling generation;
- required bin sizes and numbers;
- proposed collection frequencies;
- storage location;
- carting route; and
- collection contractor, where known.

Where a proposed use is not represented in Council's commercial audit data, the applicant must nominate the closest comparable audited business type and justify its selection. Council may require further waste composition information where the nominated comparison is not considered representative.

5.7 Commercial Waste Storage

The commercial waste storage provisions require further review.

The Operational Waste Management Plan proposes a single communal Commercial/Retail Waste Room together with a dedicated supermarket waste room. The commercial waste room is intended to accommodate the waste generated by all retail, commercial and childcare tenancies, whilst the supermarket is proposed to operate an independent waste management system incorporating dedicated waste equipment and storage.

Council supports the provision of separate waste storage facilities for the supermarket and the remaining commercial development in principle.

However, the size of the proposed commercial waste room has been determined using the consultant's generic commercial waste calculations, which significantly understate the maximum development yield adopted by Council.

As discussed in Section 5.6, Council's assessment indicates substantially greater commercial waste volumes than those identified within the Operational Waste Management Plan. Accordingly, the commercial waste storage facilities must be reassessed using the revised waste generation calculations.

Unlike the residential component, commercial waste storage requirements cannot be determined solely from bin footprints. Commercial waste rooms must also safely accommodate:

- General Waste bins;
- Recycling bins;
- Food Organics bins;
- contingency bins;
- sufficient manoeuvring space;
- washdown facilities;
- cleaning equipment;
- bin tug operating areas;
- bin lifters (where required);
- compactors;
- balers;
- access aisles;
- circulation space; and
- safe access for collection staff.

The submitted Operational Waste Management Plan includes an additional 60% circulation allowance when determining waste room sizes. Council considers this approach appropriate as a minimum, provided that all bins remain individually accessible and can be removed without moving other bins.

Where larger 660L Food Organics bins are ultimately adopted, sufficient space must also be provided for:

- storage of the residential-level 240L Food Organics exchange bins;
- contingency replacement bins;
- a mechanical bin lifter;
- safe operating clearances around the bin lifter;
- decanting of Food Organics from 240L bins into 660L collection bins; and

- washdown facilities capable of managing spills and leachate.

Similarly, should the supermarket incorporate compactors, balers or other specialised waste equipment, the amended Operational Waste Management Plan must demonstrate:

- the make and model of each item of equipment;
- operational clearances;
- maintenance access;
- safe replacement procedures;
- collection vehicle access;
- loading arrangements; and
- contingency storage during equipment servicing or failure.

The provision of mechanical waste handling equipment does not reduce the requirement to provide sufficient permanent waste storage capacity for all required waste streams. Any operational efficiencies achieved through compaction or baling must not be relied upon to reduce the minimum waste storage areas required by Council.

The commercial waste room must also retain sufficient flexibility to accommodate future changes in tenancy mix. As the final tenants have not yet been confirmed, the room should be capable of accommodating higher food-generating uses without requiring structural modification or reducing safe access to waste equipment.

The amended Operational Waste Management Plan must therefore provide:

- revised commercial waste storage calculations based on the commercial waste generation assessment adopted by Council;
- dimensioned waste room layouts showing all bins and equipment;
- individual footprints for every bin;
- unobstructed access to each bin;
- manoeuvring paths for full and empty bins;
- washdown and drainage facilities;
- ventilation;
- Food Organics storage and cleaning facilities;
- locations of compactors, balers and bin lifters (where provided);
- operating clearances for all mechanical equipment;

- storage for contingency bins;
- safe staff working areas; and
- sufficient capacity to accommodate the ultimate tenancy mix proposed for the development.

The architectural plans should be amended to demonstrate compliance with these requirements before the Operational Waste Management Plan can be supported.

5.8 Commercial Bin Carting Route

The Operational Waste Management Plan proposes that each commercial tenancy will transport waste to a central Commercial/Retail Waste Room, with the supermarket operating an independent waste management system. On collection days, the appointed building manager or caretaker will provide the waste contractor with access to the commercial waste room, after which bins will be serviced within the loading dock before being returned to their storage location.

Council supports the principle of centralised commercial waste storage. However, insufficient information has been provided to demonstrate that the proposed commercial bin carting routes comply with Bayside Council's Waste Management Technical Specification 2022.

Unlike the residential component, commercial waste generation is distributed across numerous individual tenancies. Consequently, the commercial waste management system must safely accommodate the movement of General Waste, Recycling and Food Organics bins from each tenancy to the central waste room on a daily basis, together with the movement of collection bins between the waste room and the loading dock on collection days.

The amended Operational Waste Management Plan must therefore clearly identify the complete carting route for all commercial waste streams.

Commercial bin carting routes must:

- remain wholly within the property boundary;
- provide a direct and continuous route;
- be free of steps, kerbs and other obstructions;
- be constructed of a hard, durable, non-slip surface;
- provide adequate width for the largest bin proposed;
- provide sufficient turning areas at corridor intersections and doorways;
- maintain appropriate vertical clearance for all mechanical equipment;

- minimise manual handling risks; and
- avoid conflict with customers, residents, deliveries and loading dock operations.

Council's Waste Management Technical Specification 2022 limits manual bin carting distances to:

- **30 metres for bins up to 360L; and**
- **5 metres for bins greater than 360L.**

Where these distances cannot be achieved, suitable mechanical bin-moving equipment must be provided.

The Operational Waste Management Plan acknowledges that bin transfer distances exceeding 10 metres require mechanical assistance and recommends the provision of suitable bin-moving equipment, including a bin tug, trailer or tractor where necessary.

The amended Operational Waste Management Plan must therefore identify:

- the carting route from every commercial tenancy to the commercial waste room;
- the route from the commercial waste room to the loading dock collection area;
- all travel distances;
- corridor widths;
- doorway widths;
- turning circles;
- gradients;
- floor finishes;
- any security doors or access control points;
- any lifts or level changes;
- locations where pedestrian or vehicle conflicts may occur; and
- the return route following collection.

Where 660L or 1,100L bins are proposed, the applicant must demonstrate that the bins can be safely manoeuvred throughout the entire carting route without exceeding Council's maximum manual handling distances or gradients.

Where 240L Food Organics bins are collected from individual food tenancies and transferred into larger 660L collection bins, the carting assessment must also identify:

- the route from each tenancy to the nominated Food Organics transfer area;

- the location of the mechanical bin lifter;
- the route between the transfer area and the commercial Food Organics storage area;
- storage locations for contingency 240L Food Organics bins;
- washdown facilities associated with the transfer area; and
- procedures to ensure Food Organics handling does not obstruct other waste operations.

The applicant must also demonstrate how the supermarket waste management system interfaces with the central loading dock operations. Where compactors, balers or other specialised equipment are proposed, sufficient operating space must be provided to allow waste contractors to safely remove and replace equipment without interfering with the servicing of the remaining commercial tenancies.

The amended Operational Waste Management Plan must include dimensioned commercial bin carting plans identifying:

- all commercial waste carting routes;
- travel distances;
- manual handling distances;
- gradients;
- mechanical handling equipment;
- operating clearances;
- bin staging locations;
- loading dock interface arrangements;
- staff operating areas; and
- contingency arrangements during peak trading periods or equipment failure.

Until this information is provided, Council cannot be satisfied that the proposed commercial waste management system can be operated safely or efficiently for the ultimate commercial development or that the proposed carting arrangements comply with Bayside Council's Waste Management Technical Specification 2022.

5.9 Collection Point and Vehicle Access

The Operational Waste Management Plan proposes that all residential and commercial waste collections occur within the development's dedicated loading dock, with waste collection vehicles entering and exiting the site in

a forward direction. Residential bins are to be transferred from the Residential Waste Holding Room to the collection point by building management staff, while commercial bins are to be presented from the Commercial/Retail Waste Room and supermarket waste area immediately prior to collection.

Council supports the principle of on-site waste collection as it eliminates the need for bins to be presented on the public road network and is consistent with the objectives of the Waste Management Technical Specification 2022.

However, the Operational Waste Management Plan and Preliminary Loading Dock Management Plan do not provide sufficient detail to demonstrate that the loading dock and collection point can safely accommodate the simultaneous servicing of the residential, commercial and supermarket waste streams whilst maintaining safe vehicle and pedestrian movements throughout the site.

The collection point must be designed to accommodate the maximum waste generation associated with the ultimate development yield adopted by Council. This includes sufficient space for the temporary staging of all General Waste, Recycling, Food Organics and Garden Organics bins awaiting collection, together with the operational requirements of commercial waste equipment and collection vehicles.

The amended Operational Waste Management Plan and Preliminary Loading Dock Management Plan must clearly demonstrate:

- the exact location of the residential and commercial collection point;
- the number of bins capable of being staged for collection at any one time;
- sufficient circulation space for building management staff and collection crews;
- separation between staged bins and loading dock vehicle movements;
- separation between waste operations and pedestrian access;
- clear access to all staged bins without relocating adjacent bins;
- adequate lighting and ventilation;
- suitable washdown facilities and drainage;
- protection of waste operations from adverse weather where appropriate; and
- sufficient space to accommodate peak collection periods.

The submitted documentation indicates that waste collection vehicles will enter and exit the loading dock in a forward direction. This arrangement is supported in principle, provided the applicant demonstrates, through swept path analysis, that the nominated collection vehicles can safely undertake all manoeuvres entirely within the site.

The amended plans must therefore demonstrate:

- unrestricted vehicle access between the site entry and loading dock;
- adequate vertical and horizontal clearances;
- compliance with the swept path requirements of the nominated waste collection vehicles;
- sufficient standing room for collection vehicles without obstructing other loading dock operations;
- safe ingress and egress in a forward direction;
- appropriate sight distances at all vehicle conflict points;
- that waste collection vehicles are not required to reverse into or from the public road; and
- that simultaneous loading dock activities can occur without compromising waste collection operations.

As both residential and commercial waste collections are proposed to occur from the same loading dock, the applicant must also demonstrate how collection activities will be coordinated to avoid operational conflicts. This should include:

- collection scheduling for each waste stream;
- procedures where multiple waste collection vehicles attend the site on the same day;
- supermarket servicing arrangements;
- loading dock management responsibilities;
- contingency arrangements during peak trading periods; and
- procedures for managing delayed collections or equipment failures.

Where compactors, balers or other specialised supermarket waste equipment are proposed, sufficient operational space must also be provided to safely remove, exchange or service that equipment without affecting residential or commercial waste collection activities.

The amended Operational Waste Management Plan and Preliminary Loading Dock Management Plan must include dimensioned plans identifying:

- the residential and commercial collection point;
- waste vehicle standing locations;
- swept path assessments for the nominated collection vehicles;
- staged bin locations during collection;
- pedestrian exclusion zones;
- loading dock circulation paths;

- manoeuvring areas;
- vehicle clearances; and
- all operational controls necessary to safely manage concurrent residential, commercial and loading dock activities.

Until this information is provided, Council cannot be satisfied that the proposed collection point and loading dock arrangements are capable of safely and efficiently servicing the ultimate residential and commercial development while complying with the requirements of Bayside Council's Waste Management Technical Specification 2022.

6. Summary

Council has undertaken a detailed assessment of the submitted Operational Waste Management Plan and Preliminary Loading Dock Management Plan against the requirements of Bayside Council's Waste Management Technical Specification 2022 and the maximum development yield proposed under the Development Application.

The assessment has identified a number of inconsistencies between the submitted documentation and the proposed development, including differing residential dwelling numbers, commercial floor areas and childcare capacities. For the purposes of this assessment, Council has adopted the maximum development yield to ensure the proposed waste management infrastructure is capable of servicing the development at full capacity.

Council supports the provision of a centralised waste management system, including separate residential and commercial waste storage areas, on-site waste collection and a dedicated loading dock. These principles are consistent with Council's waste management objectives and, if appropriately designed, are capable of providing an efficient long-term waste management solution for the development.

However, Council cannot support the Operational Waste Management Plan in its current form. The submitted waste generation calculations do not accurately reflect the maximum development yield, and consequently the proposed bin numbers, storage areas, carting arrangements and collection infrastructure cannot be confirmed as adequate.

In particular, the amended Operational Waste Management Plan must:

- reassess the residential and commercial waste generation calculations using the maximum development yield adopted by Council;
- incorporate commercial Food Organics generation based on Council's audited diversion rates for applicable food-generating land uses;

- review the required numbers and sizes of all General Waste, Recycling, Food Organics and Garden Organics bins;
- demonstrate that all residential and commercial waste storage areas provide sufficient capacity for operational bins, contingency bins, circulation space and associated waste handling equipment;
- provide detailed residential and commercial bin carting assessments demonstrating compliance with the manual handling requirements of Bayside Council's Waste Management Technical Specification 2022;
- provide detailed collection point and loading dock plans demonstrating that residential and commercial waste collections can be safely undertaken within the site without conflict with other loading dock operations;
- demonstrate compliance with the swept path requirements of the nominated waste collection vehicles; and
- provide sufficient operational detail to demonstrate that the proposed waste management system is capable of servicing the ultimate development safely, efficiently and without adverse impacts on residents, commercial tenants, collection staff or the surrounding road network.

Subject to these matters being satisfactorily addressed, Council considers that an appropriately designed on-site waste management system is capable of servicing the proposed development.

Accordingly, should the consent authority be minded to approve the application, Council recommends that the applicant be required to submit an amended Operational Waste Management Plan and Preliminary Loading Dock Management Plan addressing the matters raised within this assessment, to the satisfaction of Council, prior to the issue of any Construction Certificate.