

Chatswood Dive Site Build-to-Rent – Waste Management Plan

A Submission to Landcom

10th December 2025



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In the spirit of reconciliation MRA Consulting Group acknowledges the Traditional Custodians of Country throughout Australia and their connection to land, sea and community. We pay our respects to Aboriginal and Torres Strait Islander peoples and to Elders past, present and emerging.

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Glossary

Terminology	Definition
AS	Australian Standard
BTR	Build-to-Rent
C&D	Construction and Demolition
C&I	Commercial and Industrial
DA	Development Application
DCP	Development Control Plan
ENM	Excavated Natural Material
EPA	Environment Protection Authority
HRV	Heavy Rigid Vehicle
LGA	Local Government Area
MGB	Mobile Garbage Bin
MRA	MRA Consulting Group
MSW	Municipal Solid Waste
VENM	Virgin Excavated Natural Material
WDCP	Willoughby Development Control Plan 2025
WLEP	Willoughby Local Environmental Plan 2012
WMP	Waste Management Plan
WSP	Waste Service Provider
WSRA	Waste Storage and Recycling Area

1 Introduction

This Waste Management Plan (WMP) has been prepared to support a state significant development application (SSDA) (ref. SSD- SSD-100006957) for the proposed development known as 'Chatswood 'Dive Site' Built-to-Rent' SSD located at 339 Mowbray Road, Chatswood.

The proposal involves the site preparation and development of a 23-storey mixed use development, consisting of commercial premises and a residential flat building with 180 build-to-rent dwellings. The building includes 4 storey podium and an additional 19 storey residential tower, including retail premises, services, lobby and communal open space. The proposed works include the preparation of the site, including connection of services and utilities and site fill to align with existing public domain.

A proposal for SSD requires the preparation of an Environmental Impact Statement (EIS). This report has been prepared in support of the EIS and its purpose is to demonstrate that the proposed development adequately addresses the waste management requirements outlined in the project's Secretary's Environmental Assessment Requirements (SEARs) and is consistent with the objectives, controls, and directions of the Willoughby Development Control Plan 2025 and relevant Council guidelines.

This WMP addresses the waste management requirements of the Consent Authority (NSW Department of Planning, Housing and Infrastructure) and conforms to the following environmental planning instruments and reference documents:

- Willoughby Development Control Plan (WDCP) 2025
- Willoughby Local Environment Plan (WLEP) 2012
- Planning Secretary's Environmental Assessment Requirements (SEARs) issued on 21st November 2025

Consideration has also been given to the following supplementary documents in the preparation of the WMP:

- NSW EPA (2019) *Better Practice Guide for Resource Recovery in Residential Developments*.
- Northern Sydney Regional Organisation of Councils (NSROC) (2018) *Development Controls for Multi Dwelling Housing, Residential Flat Buildings and Mixed Use Developments*
- NSROC (2018) *Waste Management Technical Guide for Multi Dwelling Housing, Residential Flat Building and Mixed Use Developments*

Since the WDCP has adopted the NSROC Development Controls and Technical Guide for waste management specifications, the Waste and Recycling Management Plan has been prepared in accordance with the NSROC Development Controls. It states the following objectives for waste management:

- To ensure developments are designed to maximise resource recovery through waste avoidance, source separation and recycling.
- To encourage source separation of waste, reuse and recycling by ensuring developments provide adequate and appropriate bin storage and collection facilities for waste.
- To ensure developments incorporate well-designed and responsive bin storage and collection facilities that are convenient and accessible to occupants.
- To maximise residential amenity and minimise adverse environmental and health-related impacts associated with waste management, such as odour from bin storage areas and noise from collection areas.
- To ensure bin storage and collection facilities are designed so that they can be integrated with and comply with the requirements for Council's domestic waste services.
- To ensure developments facilitate all waste streams being handled, stored and collected in a manner to reduce risk to health and safety of all users, including maintenance (such as caretakers), collection staff and contractors (and required vehicles and equipment).

This WMP is used to inform the building design to deliver best practice waste management and promote sustainable outcomes at the construction and operational phases of the development. The WMP addresses waste generation and storage associated with construction works through redevelopment and ongoing occupation of the proposed use.

1.1 Project Details

Proponent

The landowner and Proponent is as follows:

- Landcom

Project reference number

The BTR SSD project reference number is SSD-100006957.

1.2 SEARs Summary

This WMP has been prepared to address the Secretary's Environmental Assessment Requirements issued for the project (SSD-100006957) on 21st November 2025, with specific waste management requirements identified in Table 1.

Table 1: Relevant SEARs considered

Issue	SEARs	Supporting Sections
17. Waste Management	• Provide the measures to be implemented to manage, reuse, recycle and safely dispose of waste, including in accordance with any council waste management requirements.	Sections 4.1, 4.2, 5 and Appendix A
	• Identify appropriately sited waste storage areas, collection access paths/roads, and appropriate servicing arrangements for the site.	Sections 4.1.4, 4.1.5, 4.2.2, 4.2.5, 5.5, 5.6 and Appendix A

2 Background

2.1 Description of the Proposed Development

BTR SSDA will seek consent for:

- Site subdivision and construction of a high density 23-storey mixed-use building for the delivery of 180 apartments, including a mixed-use podium and residential tower with a height of approximately 79.25m, and associated services, including the:
 - Ground floor, including 5 residential dwellings facing the future streetscape, residential lobby and internal services, commercial/retail tenancies, services, lift shaft and fire stairs.
 - Level 1 and 2 Podium, including 8 dwellings per floor inclusive of 5 terraces on Level 1, 37 car spaces total, services, lift core and fire stairs.
 - Level 3 Podium, including the communal internal amenity area and communal outdoor space, services, lift core and fire stairs.
 - Level 4-10 Tower, including 8 dwellings, services, lift core and fire stairs.
 - Level 11-22 Tower, including 9 dwellings, services, lift core and fire stairs.
 - Civil works, earthworks, and external landscaping, consisting of a mix of hard and green space and a public art feature.

2.2 Location

The site known as the Chatswood 'Dive Site' consists of 20 lots located at 339 Mowbray Road, 569 Pacific Highway, 589 Pacific Highway, L 591 Pacific Highway, 607 Pacific Highway, 5 Bryson Street, and 8 Bryson Street, Chatswood. The site details are as below:

Table 2: Subject site details

Address	Lot/Section/Plan
339 Mowbray Road, Chatswood	1/-/DP243111, 2/-/DP537580, 5/-/DP65670, 18/-/DP60346, 4/-/DP65670, 6/-/DP65670, 2/-/DP221896, 5/-/DP524631, 6/-/DP66854
569 Pacific Highway, Chatswood	1/-/DP204133
589 Pacific Highway, Chatswood	1/-/DP216408, 1/-/DP508715, 3/-/DP58646
L 591 Pacific Highway, Chatswood	1/-/DP503447
607 Pacific Highway, Chatswood	1/-/DP537580, 3/-/DP455907, 4/-/DP455907
5 Bryson Street, Chatswood	3/-/DP961402
8 Bryson Street, Chatswood	6/-/DP72759
Bryson Street, Chatswood	2/-/DP1223080

The site is located within the Willoughby City Local Government Area, approximately 7km north of Sydney CBD, and approximately 650 metres south of Chatswood Train Station and 650 metres north-west of Artarmon Train Station. The site is situated within the Chatswood CBD.

The site has a total area of approximately 17,510 square metres. The site is currently cleared with the exception of a locally heritage listed item known as 'Mowbray House' on the southeastern corner of the site.

The site is located on the corner of Pacific Highway and Mowbray Road, with a northern site frontage to Nelson Street. The site is surrounded by detached residential development to the north, west and partially south. To the south of the south of the site includes functioning industrial uses. The site's eastern interface is to a functioning entrance to the Sydney Metro line and acts as a buffer to the rail line directly east.

The current site context is illustrated in Figure 1.

Figure 1: Site plan



Source: Fender Katsalidis, 2025.

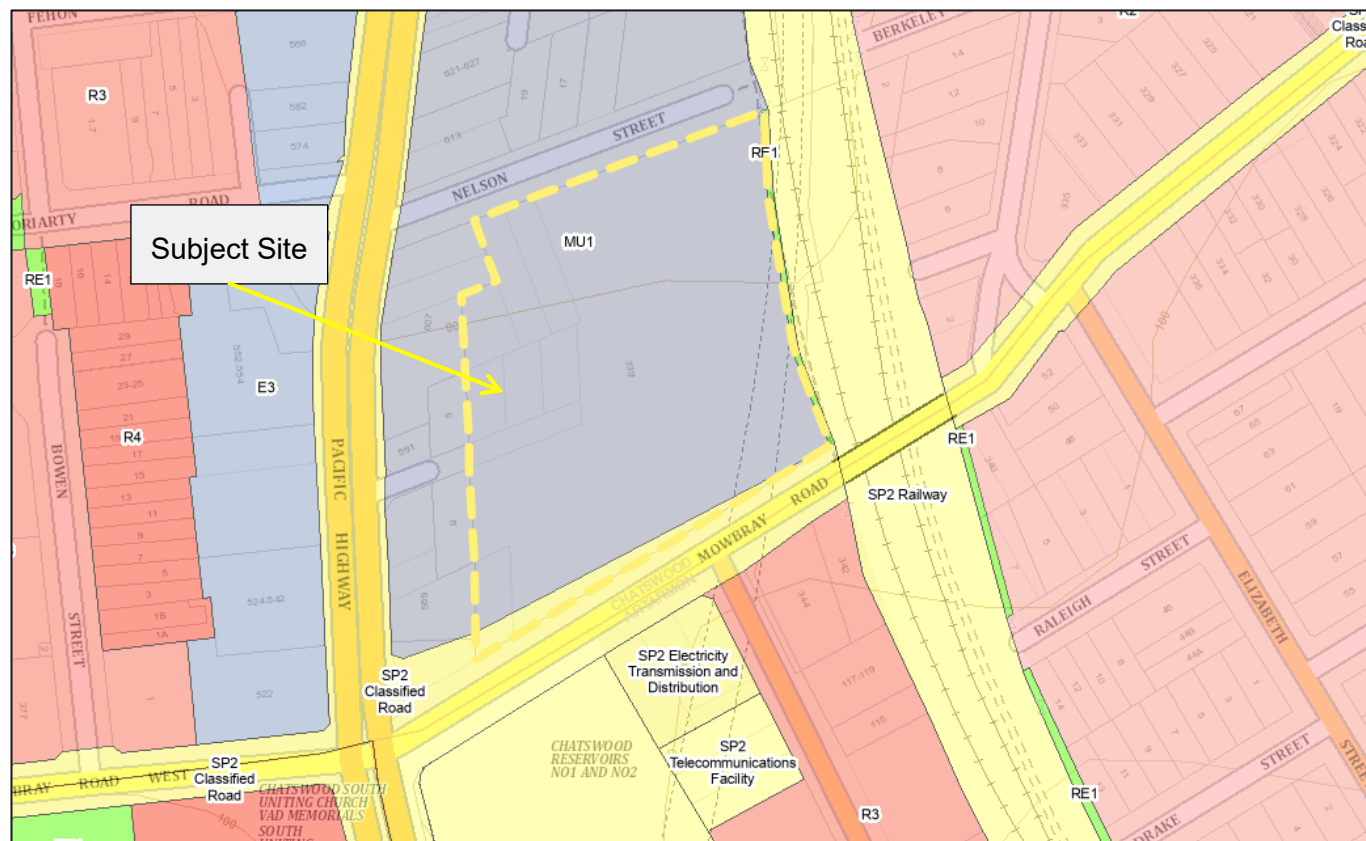
2.3 Zoning and Use

The site is zoned as MU1 – Mixed Use according to the WLEP 2012. The objectives of this zone are:

- To encourage a diversity of business, retail, office, and light industrial land uses that generate employment opportunities.
- To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse, and functional streets and public spaces.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To encourage businesses, retail, community, and other non-residential land uses on the ground floor of the building.

- To allow for city living on the edges of the city centre of Chatswood, which encourages public transport use, shopping and the use of businesses and recreational services that contribute to the vitality of the city, without undermining its commercial role.

Figure 2: Land use zone map



Source: NSW ePlanning Spatial Viewer, 2025.

2.4 Strategies

Waste management for the site considers better practice, necessary equipment, and integration with other guidance documents, including the NSW Waste and Sustainable Materials Strategy (NSW EPA, 2021), and National Waste Policy: Less Waste, More Resources (DAWE, 2018). The key policy aims that are considered are:

- Avoidance (to prevent the generation of waste);
- Reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource; and
- Ensure that waste treatment, disposal, recovery and re-use are undertaken in a safe, scientific and environmentally sound manner.

Management of waste generated onsite according to directives of the NSW Strategy will assist in achieving the target of 80% diversion from landfill in the C&D sector.

2.5 Assumptions

This report is a Waste Management Plan (WMP), forming part of the development documentation and assumes:

- Drawings and information that have been used in waste management planning for this WMP are the final design set for the development plan from the project architect, Fender Katsalidis, 5th December 2025;

- Waste and recycling volumes are based on information provided from the NSROC (2018) *Waste Management Technical Guide for Multi Dwelling Housing, Residential Flat Building, Mixed Use Developments*; and
- This WMP is a living document and, therefore, waste management equipment and systems described in this report are subject to change based on future operations and available technology.

3 Construction

Construction activities at the site will generate a range of construction and demolition (C&D) waste. As the site is currently vacant, no demolition waste has been addressed within this report. Throughout the development process, all materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse or recycling processes.

Waste storage during construction operations will involve some stockpiling of reusable material, as well as placement of wheeled bins for the separation of construction materials for recycling. A bin for residual waste or contaminated material will also be made available at the site for disposal where necessary. Bins may require alternative placement across construction operations to facilitate the safe and efficient storage of materials and will be retained within property boundaries to avoid illegal dumping.

A waste storage area shall be designated by the construction contractor and shall be sufficient to store the various waste streams expected during operations. Waste storage areas will be kept clear to maintain access and shall also be kept tidy to encourage separation of waste materials and for WHS reasons. The waste storage area will retain multiple bins to allow for source separation of waste, for ease of recovery and reuse of materials.

Waste management principles, management measures and facilities in use on the site shall be included as part of the site induction for all personnel working on the site.

3.1 Construction Waste

The construction of the proposed development, as described in Section 2, will result in a range of construction-related waste due to off-cuts, surplus, damaged/broken materials and spoilage. To determine an estimated weight or volume of potential construction waste, Table 2 outlines indicative volume-to-weight conversion factors for common construction materials, in addition to the average wastage per material type as a percentage.

Table 3 outlines indicative volume-to-weight conversion factors for common construction materials.

Table 3: Indicative volume-to-weight conversion factors for common construction materials

Building waste material	Tones per m ³	Waste as % of the total material ordered
Soil/aggregate	1.4 – 1.6	–
Bricks	1.2	5–10%
Concrete	1.5	3–5%
Tiles/ceramics	0.5 – 1	2–5%
Timber	0.3	5–7%
Plasterboard	0.2	5–20%
Metals	0.15 – 0.9	–

Source: Green Building Code of Australia C&D Waste Criteria.

Table 4 outlines the estimated waste generation rates for materials through the construction of the proposed development, in addition to the appropriate management methods for each material type.

The information below presents multiple options for materials reuse, recycling and disposal where applicable (e.g. return to manufacturer, recycled at construction and demolition (C&D) processor, or disposed of in landfill if contaminated).

Table 4: Construction waste generation estimations

Type of Material	Estimated Volumes (m³)	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
Excavated material	400 - 600	✓	✓	✓	<5%	>95%	Onsite: Reuse for fill and levelling. Offsite: Removed from site for reuse as recycled fill material or soil. Disposal: Removal of any contaminated material for appropriate treatment or disposal.
Bricks/pavers	10-20	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.
Concrete	300-450	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for filling, levelling or road base. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Tiles	<10	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.

Type of Material	Estimated Volumes (m³)	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
Timber (clean)	<10	-	✓	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse removed to C&D facility for recovery where possible.
Timber (treated)	10-20	-	✓	✓	50%	50%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse removed to C&D facility for recovery where possible.
Plasterboard	10-20	-	✓	✓	<10%	90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier or removed to a C&D/plasterboard recovery facility for recovery where possible.
Glass	<10	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.
Metals (ferrous & non-ferrous)	10-20	-	✓	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse or removed to C&D facility for recovery and recycling.

Type of Material	Estimated Volumes (m ³)	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
Floor covering	10-20	✓	✓	✓	<10%	>90%	On site: to be separated wherever possible to enhance resource recovery. Reuse: surplus and offcut material returned to manufacturer for reuse where possible. C&D processor: recovery and recycling.
Fixtures and fittings	<10	✓	✓	✓	<10%	>90%	On site: to be separated wherever possible to enhance resource recovery. Reuse: surplus and offcut material returned to manufacturer for reuse where possible. C&D processor: recovery and recycling.
Electronic waste	<10	-	✓	✓	<10%	>90%	Offcut wires and electronics separated where possible or returned to supplier for reuse.
Packaging materials (pallets, wrap, cardboard, etc)	50-100	-	✓	✓	<10%	>90%	Returned to supplier where possible or separated by material type for resource recovery.
Residual waste	25-50	-	✓	✓	100%	-	Resource recovery dependant on facility destination capability.
Total % Diversion from Landfill Estimated						>90%	

3.2 Waste Contractors and Facilities

To ensure best practice waste management, appropriate contractors and facilities have been proposed based on their location and service offerings (Table 5).

Table 5: Waste service contractors and facilities

Role	Details
Recommended Waste Collection Contractor	The following are local skip bin operators for consideration in the management of excavation and construction waste for the site: • North Shore Skip Bins • Monsta Mobile Skips • Aussie Industries • Pro Skips • Phillips Skip Bins • Bingo Industries Or another supplier as elected by the building contractor.
Principal Off-Site Recycler	The following are local C&D processing facilities for consideration in the management of C&D waste generated at the site: • MET Recycling • Bingo Industries • Metropolitan Demolitions Group Or another appropriate facility as elected by the waste management contractor.
Principal Licensed Landfill Site	• Bingo Industries – Eastern Creek • Greenwood Landfill and Waste Recovery Facility Or other appropriate facility as elected by the waste management contractor.

3.3 Site Documentation

This WMP will be retained on-site during the construction phases of the development, along with other waste management documentation (e.g. contracts with waste service providers).

Responsibility for the WMP, waste documentation and processes during the excavation and construction phases will be with the site manager or builder.

A logbook that records waste management and collection will be maintained on site, with entries including:

- Time and date of collections;
- Description of waste and quantity;
- Waste/processing facility that will receive the waste; and
- Vehicle registration and company name.

Waste management documentation, the logbook and associated dockets and receipts must be made available for inspection by an authorised Council Officer at any time during site works.

3.4 Waste Storage, Handling, Transport, and Disposal

3.4.1 Storage

Considering the nature of the proposed works, waste management infrastructure should include the retention of several skip bins (equivalent to marrel or RORO) for storing separated construction and demolition waste/material. Waste should be placed in designated containers and collected on a regular schedule, as bins become full.

Recyclable materials would be source-separated onsite where possible in labelled bins according to the type of material, e.g., masonry, metals, paper, and plastics, etc., to enable improved recovery rates.

All problems and hazardous wastes would be stored in separate areas or bins, as they may require special treatment. Asbestos must be stored in a separate container and wrapped in thick plastic. Any flammable liquids would be stored in a bund; however, this is not likely to be necessary at the site.

Separate site Mobile Garbage Bins (MGBs) would be retained on site to collect general waste and recycling associated with the use of the site by demolition personnel.

3.4.2 Handling

The handling of waste would be dependent on the waste type.

- Inert waste would be collected for recycling or disposal, as appropriate.
- Any soils that are tested and deemed to be contaminated would be contained sent to an appropriate facility for management and disposal.
- Soils determined to contain volatile organic compounds may be remediated on-site through piling and aeration over time, or removed from the site by a suitably qualified contractor to a site that can handle decontamination or disposal as required.
- VENM and ENM may be reapplied to land onsite. VENM may be applied to land off-site without a resource recovery order and exemption. ENM requires a resource recovery order and exemption to be applied to land off-site.
- Asbestos can only be disposed of in landfills that are licensed to receive it. It must be handled and transported in a specific manner as outlined in the management measures below.
- Problem wastes include tyres, paint, car batteries, gas bottles, oils and chemicals, which would be disposed of at facilities that can receive these materials.

The Business Recycling website provides a directory of locations where waste can be recycled or safely disposed of.

All material generated would be separated where possible, to maximise resource recovery potential and reduce the need for disposal of residual materials to landfill. Any material deemed unsuitable for reuse or recovery would be disposed of in an appropriately licensed landfill.

3.4.3 Recycling Materials

Reuse and recovery potential for the expected waste product includes (but is not limited to) the methods outlined in Table 6.

Table 6. Expected waste streams during demolition activities related to preliminary infrastructure works

Waste Material	Reuse or Recovery Potential
Brick, Rubble, Stone, Ceramic, Tile, etc.	Sent to C&D processing facility for crushing and reuse as fill material
Virgin Excavated Natural Material	Reuse as fill material
Excavated Natural Material	Reuse as fill material. Compliance with ENM order and exemption is required for offsite application.

Waste Material	Reuse or Recovery Potential
Timber (treated and non-treated)	Sent to organics processor or C&D processing facility for mulching for reuse.
Metals (ferrous & non-ferrous)	Fixtures and fittings returned to the manufacturer for reuse (if applicable) or recycling at the materials recycling facility.
Plastic	Recycling at the materials recycling facility.
Paper & Cardboard	Recycling at the materials recycling facility.
Eligible residual or non-recoverable material	Processing of appropriately licensed energy from waste (EfW) as technology becomes readily available.
Tyres	Recycling at a tyre reprocessor.
Asbestos	Disposal at a facility licensed to receive asbestos.
Hazardous and Problem Waste Streams	Disposal/recycling at a facility that can accept the waste.

3.4.4 Transport

Section 143 of the Protection of the Environment Operations Act 1997 requires that waste be transported to a place that can lawfully accept it. Both the owner of the waste and the transporter are legally responsible for proving the waste was transported to a lawful place.

To show that waste has been lawfully disposed of, records should be kept of the following:

1. All demolition waste dockets must be kept, which show the facility received the material for recycling or disposal.
2. Who transported the waste (company name, ABN, vehicle registration and driver details, date and time of transport, description of waste).
3. Copies of waste dockets/receipts from the waste facility (date and time of delivery, name and address of the facility, its ABN, contact person).
4. Transport of waste materials is managed by a licensed operator.

Audits may be conducted by Council to verify that dockets have been kept and waste recycled and disposed of as described within the Waste Management Plan.

3.4.5 Disposal

The disposal of waste is recommended after recycling options have been implemented. Materials may only be disposed of at a facility that is licensed to take the particular type of waste.

1. The majority of waste onsite is inert, dry, non-putrescible waste, which may be taken to any licensed landfill.
2. Stabilised asbestos in a bonded matrix may be taken to an inert waste Class 1 landfill or a solid waste landfill Class 1 or 2.
3. The Planet Ark Business Recycling directory or "Recycling Near You" websites can be consulted to find facilities that accept a particular type of waste for recycling or disposal.
4. The EPA website "Facilities that accept household asbestos" has a list of facilities that will accept asbestos. It is recommended to contact the facility first.

3.5 Management Measures

3.5.1 General Measures

The following general site management measures are recommended for preliminary site works:

- All excavated material (VENM and ENM) removed from the site has been classified in accordance with the EPA's Waste Classification Guidelines before it is disposed of at an approved waste management facility.
- Uncontaminated soils may be reused onsite to even out cut and fill.
- No vegetation would be pushed into or applied to ecologically sensitive areas.
- Materials would be reused or recycled wherever possible.
- Separate bins would be provided for source separation of waste types where possible.
- Residual waste would be disposed of at a licensed landfill.
- Litter on the site would be managed daily to maintain a tidy environment.
- The disposal of nightsoil from portable toilets would be managed by a licensed contractor.
- Transport of waste would be managed by a licensed operator.
- Records would be kept of the transport and disposal of materials.

3.5.2 Hazardous Waste Management

All hazardous waste identified on-site is to be handled, stored and disposed of in accordance with the relevant guidelines and standards:

- All waste fill/soils will be classified in accordance with the EPA (2014) Waste Classification Guidelines.
- If prior immobilisation treatment of the waste soils is required, disposal consent will be obtained from the NSW EPA before spoil transport.
- All excavated soils shall be stockpiled separately within the designated excavation area or transported to a suitable compound (with appropriate waste tracking documentation) for temporary storage, to enable waste classification, sampling and testing.
- All stockpile heights must be limited to a maximum of 2m.
- After waste classification, the materials will be transported and disposed of at EPA-licensed waste landfill facilities. In accordance with the NEPM (2013) guidelines, stockpiled fill/soils will be sampled and laboratory analysed for waste classification purposes in accordance with appropriate methodology.
- If the stockpiled materials contain concentrations of contaminants that exceed the disposal guidelines for Restricted Solid Waste (i.e. the materials are classed as potentially Hazardous Waste), they will be held on-site pending the determination of alternative disposal arrangements and/or on-site treatment. If required, disposal consent will be sought from the NSW EPA prior to spoil transport.

The following general measures will be employed in the management and storage of hazardous materials to reduce risks associated with them:

- Designated storage locations will be secure, ventilated areas with clear signage, ensuring segregation and secondary containment for potential leaks.
- The area designated for storing any potentially hazardous materials will maintain controlled access by authorised personnel only.
- Any containers required to hold hazardous materials will be compatible, sealed containers, labelled adequately with hazard symbols and storage instructions.
- Safety equipment such as PPE, fire protection or spill kits will be made available at the site, nearby proposed storage locations for any potentially hazardous materials.
- Records of stored materials will be retained, and collection by licensed contractors will be noted against all hazardous materials collected from the site.
- Regular monitoring of hazardous materials storage for potential risks and action taken to rectify those risks will be retained in a logbook.

3.5.3 Asbestos

The handling of asbestos requires special precautions due to the hazardous nature of the material. Any handling of asbestos waste must be performed in accordance with Clause 42 of the PoEO Act 1997.

Before commencing any work, a risk assessment should be carried out. Safe work procedures would be devised that minimise exposure.

Handling requirements include:

1. Keep asbestos damp but prevent excess runoff water.
2. Asbestos should be collected, labelled and sealed using plastic or leak-proof containers.
3. Storage would be at a secure site in labelled, lined bins or a leak-proof container.
4. Asbestos-containing materials should be removed from the site as soon as practicable and/or collected and stored in a manner approved by the EPA or an appropriate disposal authority.
5. Transport would be in a covered, leak-proof vehicle or a manner approved by the OEH.
6. Disposal in a manner and at a site approved by OEH or an appropriate disposal authority.
7. Vehicles must be cleaned before leaving the landfill site.

If asbestos is found onsite, it would be contained and disposed of in the following manner:

- A risk assessment would be conducted to determine appropriate management measures.
- Asbestos waste would be disposed of in a landfill that is licensed to receive asbestos waste.
- Asbestos waste would be wetted, wrapped in 200um-thick plastic, and sealed with tape before it is transported.
- It would be clearly labelled as “asbestos waste.”
- It would be transported in a covered, leak-proof vehicle.
- Copies of receipts from landfills where asbestos was taken would be retained.
- If the amount of asbestos is more than 10m², a qualified asbestos removalist would be engaged.

4 Operational Waste Management

Operational waste management requirements of the site arise from the daily activities of the residential component of the development, as well as the commercial component, comprising retail and office uses.

Waste management strategies related to site operations have been established pursuant to the WDCP 2023 and NSROC (2018) *Waste Management Technical Guide for Multi Dwelling Housing, Residential Flat Building and Mixed Use Developments* objectives and controls, and directions in the WDCP. Each component's waste generation and storage requirement are discussed separately below.

Table 7 shows the standard bin dimensions sourced from the WDCP.

Table 7: MGB capacity and footprint

Bin Capacity (L)	Height (mm)	Depth (mm)	Width (mm)	Footprint (Approx. m ²)
120	950	570	490	0.28
240	1,100	740	600	0.43
660	1,260	850	1,400	1.19
1100	1,370	1,245	1,470	1.83

4.1 Residential

4.1.1 Waste Generation

The proposed development consists of a 23-storey building containing 180 build-to-rent units. Waste management areas have been provided to ensure waste can be managed effectively across the development.

Attachment 13 of the WDCP and the NSROC (2018) *Waste Management Technical Guide* outlines waste generation rates for various types of development. Residential waste generation rates detailed in the NSROC guidelines are outlined as follows (Table 8).

Table 8: NSROC Waste Generation Rates

Development Type	Waste Generation Rates per Dwelling			
	General Waste	Recycling	Garden Waste	Bulky Waste
Residential Flat Buildings	140L/unit/week	120L/unit/week	120L/unit/week* (25L/unit/week – per EPA Guidelines)	10m ² per 40 units + 2m ² for every additional 10 units

Source: Table 2, NSROC (2018) *Waste Management Technical Guide*

*For the purpose of this report, organic waste is assumed to be in accordance with the NSW EPA (2019) *Better Practice Guidelines for Resource Recovery in Residential Development* as a representative estimate of organic waste generation (being mainly food waste). The applied rate is therefore, 25L/unit/week.

Further to the above generation rates, the development is to provide adequate and accessible storage space for other recyclable or charitable items in accordance with the following:

- A minimum of 2 m² for any RFB up to three storeys and a minimum of 6 m² for any larger RFB; and
- Accessible for collection by a HRV (Heavy Rigid Vehicle) truck.

Table 9 outlines the daily and weekly waste generation expected from the residential component of the proposed development.

Table 9: Daily and weekly residential waste volumes

Units	Waste Stream	Daily Waste Generation (L)	Weekly Waste Generation (L)
180	General Waste	3,600	25,200
	Recycling	3,086	21,600
	Organics	643	4,500

4.1.2 Residential bin requirements

Table 10 outlines the proposed bin type for the residences in accordance with a collection frequency of twice a week for general waste, and weekly for recycling and FOGO.

Table 10: Bin requirement and collection frequency

Waste Stream	Weekly Generation (L)	Number of bins / Collection Rate
General Waste	25,200	12 x 1,100L bins / collected twice per week
Recycling	21,600	20 x 1,100L bins / collected once per week
FOGO	4,500	19 x 240L bins / collected once per week

4.1.3 Residential chutes

A chute system will be implemented in the development as it is the most efficient collection method for high-rise residential flat buildings. The building will be serviced by a dual chute system for general waste and recycling, with 1 x 240L FOGO bin provided on every level.

Volume handling equipment

The waste chutes will be supported by automatic bin systems to handle at least one day's worth of waste generated.

- General Waste – volume per day: **3,600L**
4 x 1,100L bin carousel – 4.05m x 4.05m
- Recycling – volume per day: **3,086L**
3 x 1,100L bin carousel – 3.6m x 3.6m

Building management will be responsible for replacing full bins on the volume-handling infrastructure every one to two days, or as required, with spare bins stored in the main waste storage area.

Residential level chute rooms

A chute room containing the chute hoppers and 1 x 240L FOGO bin will be provided on each floor from Level 1. Building management will be responsible for monitoring fullness levels of the FOGO bins and swapping with empty ones as needed throughout the week.

In the event of a failure in chutes, the chute rooms on each level have space in front of chute inlets to retain 240L bins or similar to support disposal of waste and recycling at need. Building Management will be responsible for monitoring bin fullness and transferring general waste and recyclables from the 240L bins into bulk bins in the building's main waste storage area. Decanting of recyclables into the bulk bins can be facilitated by a bin lifter and can be stored in the building's waste storage area if required.

4.1.4 Waste Storage Requirements

The waste storage requirements outlined in Table 11 have been calculated based on estimated areas for the proposed bin types and associated volume-handling infrastructure.

Table 11: Waste storage area requirement

Waste Stream	Weekly Generation (L)	Volume handling infrastructure	Approximate Space Required (m ²)
General Waste	25,200	4 x 1,100L bin carousel – 4.05m x 4.05m	20.5 ¹
		8 x 1,110L spare general waste bins	22 ²
Recycling	21,600	3 x 1,100L bin carousel – 3.6m x 3.6m	16 ¹
		17 x 1,110L spare recycling bins	47 ²
FOGO	4,500	23 x 240L bins ³	15 ²
Total bin storage and handling area			~120.5
Bulky and other waste storage			38

Note: 1 – includes operational clearance

2 – includes additional 1.5 x m² space for bin manoeuvring

3 – While the development requires 19 bins as per Table 10, providing one FOGO bin on each level will require a total of 23 FOGO bins for this building.

A waste storage room, with an area of approximately 122m², and a separate bulky waste storage room, sized at will be provided at ground-level (Appendix A) to accommodate the bins and volume handling infrastructure infrastructure outlined in Table 11. Access to this area will be restricted only to the building management.

A separate bulky waste room, sized at approximately 40m², will be provided adjacent to this main waste storage area, and will be accessible by residents.

The layout of the bin storage area will adhere with the design requirements stated in the NSROC (2018) *Waste Management Technical Guide*:

- A minimum aisle width of 1.5 metres will be provided to allow for safe bin access and manoeuvring.
- Bins will not be stacked more than one deep.
- All bins will be placed side by side to ensure unobstructed and equal access.

Building management can observe the bin fullness levels once the site is fully occupied and adjust the number of bins accordingly.

Bulky Waste

Bulky waste items include those that cannot be disposed of in general waste and recycling bins, including but not limited to broken/damaged/old whitegoods, furniture, appliances, mattresses, etc. This is important to avoid illegal dumping of bulky waste and ensure items are not stored on the footpath, creating a hazard and impacting on amenity.

The site will include a dedicated bulky waste room of approximately 40m². To meet the layout requirements of the communal waste storage area, a portion of the spare FOGO bins (approximately 9–12 bins) will be stored within this room. The allocated space is sufficient to accommodate both the bulky waste storage needs and the additional bins.

Household waste storage

All residents will have access to a storage area within their own unit capable of holding separate receptacles for general waste, recycling and FOGO. This is typically located within kitchen areas beneath the workbench. This space is to be sized to accommodate bins that can store at a minimum one day's garbage, recycling and food waste generated.

4.1.5 Waste Collection

Waste generated from the residential component of the building will be collected by Council waste service. The development has been designed to accommodate a 12.5m HRV as required by the NSROC (2018) *Waste Management Technical Guide*. The proposed schedule of service is the following:

- General Waste – twice per week
- Recycling – once a week
- Organics – once a week
- Bulky Waste – as required (schedule to be arranged with Council once operational)

4.2 Commercial Waste Management

4.2.1 Waste Generation

Operational waste management addressed in the following section relates to waste generation associated with the various commercial uses proposed on the site. The development includes areas designated for retail and business purposes. It is noted that each internal commercial tenancy will require a separate application and approval for use and fit out works.

The generation rates presented in the NSROC (2018) *Waste Management Technical Guide* are based on the outdated NSW EPA (2007) *Better Practice Guide for Waste Management in Multi-Unit Dwellings*. Accordingly, updated rates have been adopted from the NSW EPA's (2019) *Better Practice Guide for Resource Recovery in New Developments*. Weekly waste generation is based on a 7-day operational week.

Table 12: Commercial waste generation

Use type	Unit of generation	Waste Stream	Generation Rate	Total Weekly Generation (L)
Retail (Restaurant / Café)	60m²	General waste	400L/day/100m²	1,008
		Recycling	280L/day/100m²	588
		Paper & Cardboard*	-	588
		Food waste**	-	672
Office	176m²	General waste	10L/day/100m²	123
		Recycling	15L/day/100m²	93
		Paper & Cardboard*	-	93
TOTALS		General waste		1,131
		Recycling		681
		Paper & Cardboard		681
		Food waste		672

*Note: For the purpose of estimating waste generation, 50% of recycling is assumed to be paper and cardboard waste in this instance. Management may like to opt in to a paper & cardboard collection for further source separation at the site.

**Food waste generation has been calculated at 40% of the rate of general waste, for consideration. Management may wish to further separate this waste stream to increase landfill diversion rates.

4.2.2 Waste Storage Requirements

Waste storage space has been calculated considering estimations of bin type and collection frequency, as described in the table below (Table 13).

Table 13: Commercial waste storage and collection frequency

Waste stream	Waste generation (L/week)	Waste management options (bins and collection frequency)	Minimum Storage Area (m ²)*
General waste	1,131	3 X 240L bins collected up to twice per week	2

Waste stream	Waste generation (L/week)	Waste management options (bins and collection frequency)	Minimum Storage Area (m²)*
Recycling	681	2 X 240L bins collected up to twice per week	1.5
Paper & Cardboard	681	2 X 240L bins collected up to twice per week	1.5
Food waste	672	2 X 240L bins collected up to twice per week	1.5
Bulky / other wastes	Other waste streams serviced as required.		4
Total minimum space requirement:			~11m²

*Note: *Storage space requirement considers additional space of approximately (m² x 1.5) for manoeuvring of bins.*

240L bins are expected to be most suitable for the collection of commercial and retail waste streams at the site given the relative low generation expected.

A commercial bin storage room has been provided on the ground floor to accommodate waste management infrastructure detailed in the table above. Building management can observe the bin fullness levels once the site is fully occupied and adjust the number of collections accordingly.

4.2.3 Temporary Waste Storage

Interim waste containers will be provided within retail and office communal areas, with sufficient capacity to accommodate one day's generation of waste and recyclables.

For potential food and beverage tenancies, bins for general waste, recycling, and food waste will be provided within back-of-house (BOH) areas to facilitate effective source separation.

Cleaning staff will be responsible for emptying these bins daily and transferring waste to the site's commercial bin storage area.

4.2.4 Bulky Waste

Space for storage of bulky waste resulting from the proposed commercial uses are available within the waste storage and recycling area or within BOH areas. Bulky waste removal will be organised promptly with the nominated waste collection contractor to avoid overspill into common areas or corridors.

4.2.5 Waste collection

A private waste service provider will be engaged to manage the collection and disposal of commercial waste. Waste collection is proposed to occur twice weekly for all waste streams, which will be sufficient to accommodate the anticipated weekly waste volumes listed in Table 13.

5 Operational Waste Management Systems

5.1 Waste Management System Summary

The following specific management methods are proposed for the various collection waste streams expected to be generated at the site, including alternative waste streams outside of general waste, recycling and organics:

- **General Waste:** General waste shall be placed within a tied plastic bag before transferring into collection bins. For collection purposes, general waste shall be stored within a mobile garbage bin (MBG).
- **Commingled Recycling:** All recyclables will be stored in commingled bins (mixed plastic, paper, cardboard, glass, aluminium, steel). All recyclables should be decanted loose (not bagged) with containers uncapped, drained and rinsed prior to disposal into the recycling bin. Paper should be flattened and placed in the paper and cardboard bin if applicable.
- **Garden Waste:** It is expected that landscaping at the site will be maintained by an external contractor who will remove all vegetation waste from ongoing maintenance activities.
- **Paper and Cardboard:** Should large quantities of paper and cardboard waste be generated from proposed site uses, a separate service may be suitable for application at the site. The contracted waste service provider may be able to provide separate paper and cardboard bins for the source separation and collection of paper and cardboard waste.
- **Food Waste:** Food waste is proposed to be stored and collected in 240L bins for residential and commercial components of the proposed development. Food waste shall be disposed of in compostable kitchen caddy liners and serviced at least once per week to mitigate the risk of potential amenity impacts from odour and vermin.
- **Other (Problem) Waste:** The disposal of hard, bulky, electronic, liquid or potentially hazardous wastes shall be organised between the operator and site users as necessary.

5.2 Food waste

The Food Organics Garden Organics (FOGO) Recycling Bill 2025 (the bill) has been passed by both parliaments on 19th February 2025.

Commercial

The bill states that all NSW businesses with a weekly residual waste capacity of >3,840L, 6 x 660L bins or 16 x 240L bins are required to have a Food Organics collection service in place by the 1st July 2025. Collections for these businesses need to occur weekly to avoid odour and hygiene complications associated with food waste. Food waste is not to be mixed with non-organic material upon collection according to the bill.

As stated in Section 4.2.1, the proposed commercial development is expected to generate 846L of FOGO waste per week. 2 x 240L bins collected twice a week have been recommended to accommodate for this waste generation. As such, the proposed commercial development fits the bill's NSW business criteria and will subsequently need to adhere to the FOGO recycling requirements by the specified due date of 1st July 2026. Details as to how FOGO waste will be managed at the site are covered in Section 4.2.2. See Appendix B for additional information about the bill.

Residential

The Food Organics Garden Organics (FOGO) Recycling Bill 2026 (the bill) has been passed by both parliaments on the 19th February 2025. The bill states that all NSW local councils are required to have a weekly FOGO collection service in place by the 1st July 2026. For more information on the bill, see Appendix B.

5.3 Waste Management and Recycling Method

The flow of **residential waste and recycling** goes from generation to collection through several steps:

1. Waste is temporarily stored within the dwelling at its point of generation in an appropriately sized receptacle, clearly marked for the type of waste.

2. Residents are to transfer waste into the correct chute inlets available on each habitable level and residential waste storage room for appropriate disposal into the FOGO bins.
3. Site management is responsible for the maintenance of bins and the waste storage rooms, ensuring bins are clean and in working order. Site management is also responsible for switching out full bins and monitoring bin fullness.
4. Site management is to ensure contracts with Council, who also ensure appropriate collection scheduling and access is organised to minimise noise, odour, vermin, and visual amenity impacts to staff, visitors and the public.

The flow of **commercial waste and recycling** goes from generation to collection through several steps:

1. Waste is temporarily stored at its point of generation in an appropriately sized receptacle, clearly marked for type of waste.
2. Site cleaners and staff are to transfer waste to the respective waste storage room for appropriate disposal into the respective bin.
3. Cleaning staff and site management are responsible for maintenance of bins and the waste storage rooms, ensuring bins are clean and in working order. Cleaning staff and site management are also responsible for switching out full bins and monitoring bin fullness.
4. Site management is to ensure contracts a private waste contractor, who also ensure appropriate collection scheduling and access is organised to minimise noise, odour, vermin, and visual amenity impacts to staff, visitors and the public.

5.4 Management System and Responsibilities

The site manager will be responsible for the management of waste at the site. Should any issues impact the operational efficiency, safety and suitability of waste management, management will be responsible for making any necessary changes. Responsibilities include:

- Using this WMP to inform waste management operations, design and infrastructure;
- Providing educational materials and information on sorting methods for recycled waste, awareness of waste management procedures for waste minimisation and resource recovery;
- Maintaining a valid and current contract with a licensed waste service provider for waste and recycling collection and disposal;
- Making information available to residents and visitors about waste management procedures;
- Organising, maintaining and cleaning bins as part of a regular maintenance schedule;
- Manoeuvring bins to the specified onsite collection point before and following the scheduled collection of waste bins;
- Organising bulky waste collections as required;
- Ensuring bin allocation and waste/recycling collection frequency are adequate. Requesting additional infrastructure or services where necessary; and
- Monitoring any vermin and pest issues and arranging appropriate controls (traps or fumigating) and maintenance of doors or other points of potential entry.

5.5 Collection Method and Loading Areas

Collection points for the waste service provider (WSP) and areas for handling and loading are as follows:

- The proposed development can accommodate, in accordance with the WDCP requirement for the site to accommodate a HRV for waste collection purposes.
- Maximum 10m manual handling collection and loading from the waste storage area for 1,100L MGBs, not exceeding a grade of 1:14 to provide convenient access for the collection of waste.
- Waste collections will be scheduled to occur outside of peak visiting hours to avoid high associated traffic around the site.

- The development's allocated loading and collection point is contained within the building's ground level, accessible from Nelson Street at the north. A dedicated loading dock is provided, and the waste collection vehicle will enter and exit safely in a forward direction (see Appendix A).
- Clear, safe, accessible and convenient space for handling of MGBs and equipment and loading of collection vehicles.
- Identifiable areas where visitors and workers can recognise and avoid any risk associated with moving vehicles, and bin moving and handling.

Waste will be collected from the loading dock adjacent to the ground-level waste rooms (see Appendix A). As the waste rooms open directly onto the loading area, the waste service provider will be able to efficiently transfer bins from storage to the collection point.

Table 14: Collection points and loading areas requirements and specifications

Component	Requirement	Specification
Collection point	Allow safe waste collection and loading operations	- Adequate clearance and manoeuvring space; - Sufficient clearance for the safe handling of materials and equipment; and - Sectioned loading bay does not impede upon traffic and pedestrian safety.
Vehicle manoeuvring and loading space	Truck space for adequate lift clearance, manoeuvring and operation for a contractor collection vehicle	- Collection from each site use loading area by a rear lift collection vehicle; - Adequate loading bay dimensions to not impede lift clearance; - Operational clearance for truck manoeuvring in a forward direction; and - The provision of space clear of vehicle parking spaces (level and free of obstructions).
Operating times	Appropriate collection times to limit noise and traffic disturbance	- Collection times will be arranged during off-peak times to ensure minimal disturbance to pedestrians and visitors.

5.6 Waste and Recycling Storage Areas

The waste areas will provide centralised storage that has adequate capacity to receive and store the maximum likely generation of waste and recycling between collection times. In accordance with the WDCP 2025 and the NSROC Development Controls 2018, it is recommended that the bin storage areas be designed with the following considerations:

- Separate Residential and Commercial waste areas will be maintained.
- Bin storage area must be designed and located to comply with the requirements detailed in the Council's Waste Management Guidelines for residential flat buildings.
- Storage areas reflect the equipment, infrastructure, manoeuvring space and potential future needs of the development.
- Be located in a position that is convenient for users and waste collection staff, located away from habitable rooms.
- Waste handling, storage and collection systems for residential and non-residential waste to be separate and self-contained.
- All waste and recycling storage areas and access paths to be kept clean and free of obstructions.
- The floor is being graded and drained to an approved drainage outlet connected to the sewer and having a smooth, even surface, coved at all intersections with walls.
- The walls are cement-rendered to a smooth, even surface and coved at all intersections.

- A separate storage area for extra recyclable items, such as charity clothing bins or e-waste is to be provided of adequate size to meet the needs of the development.
- Waste storage area must be within 2-10m from the collection point.
- The room shall be adequately ventilated (either natural or mechanical) in accordance with the Building Code of Australia.

5.7 Waste Collection Vehicles

The council has provided the truck for on-site waste collection in the NSROC (2018) *Waste Management Guidelines for multi-unit developments*. Therefore, the collection area is sized to fit the truck specifications as shown in Table 15 below.

Table 15. Waste vehicle specification

Length	Width	Travel Height	Turning Radius
12.5m (plus, 2m clearance behind truck for servicing)	2.5m	4.5m	12.5m

Source: NSROC (2018) *Waste Management Technical Guide*.

5.8 Signage

Signage that promotes resource recovery, waste minimisation, safety and amenity follows the Australian Standard for safety signs for the occupational environment (Standards Australia, 1994).

Signage will be designed to consider language and non-English speaking backgrounds, vision impairment and accessibility. Illustrative graphics must form a minimum of 50% of the area of the signage. Signage is to be prominently posted in the waste room, indicating:

- Details regarding acceptable recyclables;
- Recyclables are to be decanted loose (not bagged);
- *No standing* and *danger* warnings apply to the area surrounding the waste storage area;
- Contact details for arranging the disposal of bulky items; and
- The area is to be kept tidy.

Standard signage requirements and guidance for application apply (see Appendix D).

5.9 Prevention of Pollution and Litter Reduction

To minimise dispersion of litter and prevent pollution (to water and land via contamination of runoff, dust and hazardous materials), building management and the site cleaning staff will also be responsible for:

- Maintenance of open and common site areas;
- Ensuring waste areas are well-maintained and kept clean;
- Securing the waste storage area from vandalism and the escape of litter;
- Identification and appropriate disposal of goods with hazardous material content (paints, e-waste, fluorescent tubes);
- Taking action to prevent dumping and unauthorised use of waste areas; and
- Requiring contractors to clean up any spillage that may occur during waste servicing or other work.

6 Mitigation Measures

This report concludes that the proposed residential development adequately addresses the waste management requirements outlined in the project's SEARs, and aligns with the objectives, controls, and directions of the Willoughby Development Control Plan 2025 and associated Council guidelines.

The development incorporates appropriately sized waste storage rooms for residential and commercial components of the development and provides suitable servicing arrangements for residents, building management, and the nominated waste service providers. Accordingly, no mitigation measures for waste management are considered necessary.

7 Standard Statement of Inclusion

I *Tejeshwari Arjun*, confirm this *Waste Management Plan* addresses the requirement of SEAR No. 17 – *Waste Management* and relevant State and local legislation, policies, and guidelines including *NSW EPA (2019) Better Practice Guide for Resource Recovery in Residential Developments*, *Northern Sydney Regional Organisation of Councils (NSROC) (2018) Development Controls for Multi Dwelling Housing, Residential Flat Buildings and Mixed Use Developments*, and *NSROC (2018) Waste Management Technical Guide for Multi Dwelling Housing, Residential Flat Building and Mixed Use Developments*. I further confirm that none of the information contained in the *Waste Management Plan* is false or misleading.

Author: *Tejeshwari Arjun*



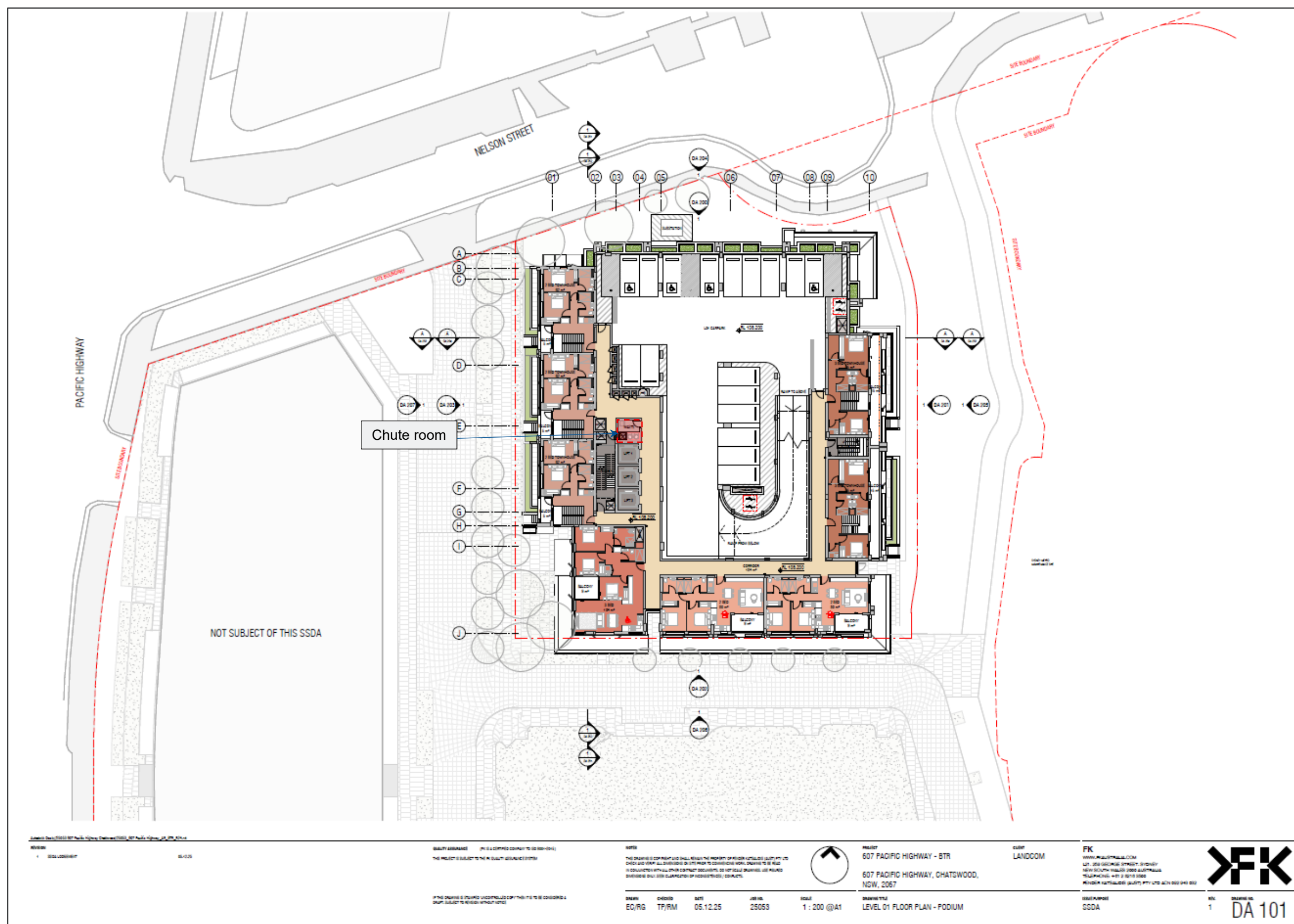
Reviewer: *James Cosgrove*



8 References

- Australian Department of Sustainability, Environment Water, Population and Communities (2011) Construction and Demolition Waste Guide - Recycling and Re-use Across the Supply Chain.
- Australian Standards 4123.7 Mobile Waste Containers.
- Northern Sydney Regional Organisation of Councils (2018) *Development Controls for Multi Dwelling Housing, Residential Flat Buildings and Mixed Use Developments*
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- NSW EPA (2012) Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities.
- NSW EPA (2013) NSW Waste Avoidance and Resource Recovery Strategy 2014-2021
- NSW EPA (2014) Waste Classification Guidelines.
- NSW EPA (2016) Recycling Signs, Posters and Symbols. Available at: <http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm>.
- NSW EPA (2019) Better Practice Guide for Resource Recovery in Residential Developments.
- NSW Government (1979) Environmental Planning and Assessment Act.
- NSW Government (1997) Protection of the Environment Operations Act.
- NSW Government (2000) Environmental Planning and Assessment Regulation.
- NSW Government (2001) The Waste Avoidance and Resource Recovery Act
- Willoughby Development Control Plan 2025
- Willoughby Local Environment Plan 2012





Source: Fender Katsalidis – Typical level plan (Level 1 up), December 2025.

Appendix B FOGO Recycling Bill Summary 2025



FOGO Recycling Bill 2025

Information for Councils

Key Requirements

By 1 July 2030
Local councils must:

- ☒ Provide all households with a food organics and garden organics (FOGO) waste service (either a FOGO bin or separate FO and GO bins)
- ☒ Provide weekly household collection of FOGO waste
- ☒ Ensure FOGO waste is not mixed with non-organic waste during collection



Regulations

A FOGO Implementation Advisory Panel will be established to:

- Provide advice to the Minister and EPA about implementation of this mandate
- Be consulted about matters to be prescribed in regulations regarding this mandate



Exemptions

The FOGO 2025 mandate does NOT apply to:

- Households not provided with a residual waste (red bin) collection service by their local council
- Lord Howe Island
- Parts of the Western Division not within the area of a local council

The EPA will develop an exemption framework which will consider:

- Geographical or population constraints
- Availability of infrastructure
- Timing and expiration of waste contracts
- Infrastructure impairments of multi-unit dwellings (MUDS) e.g., bin chutes



Source: MRA Consulting Group (summary of NSW Government), 2025.

Appendix C Waste Equipment Options

CAROUSEL SYSTEM

Elephants Foot's Carousel System is a versatile waste handling solution for many types of multi-storey or multi-level developments. The Carousel System collects waste or recycling being disposed from the floors above through the chute system, discharging the material via a hopper that feeds the bins positioned on the unit.

Electromechanically driven with automated operation, the Carousel System automatically replaces full bins by a revolving circular platform. Once all the bins on the system are filled, an indicator light will illuminate signifying that the bins are ready for withdrawal and collection.

- ✓ Simple operation with user friendly controls
- ✓ Increased waste servicing efficiency for the development
- ✓ Automatic system control with manual override
- ✓ Low service and maintenance costs
- ✓ Quiet and efficient system operation
- ✓ Maximise safety for residents, caretakers and collectors
- ✓ Can suit low ceiling clearances
- ✓ Retro fitting options to suit other chutes systems
- ✓ Compliant with relevant Building Codes and Standards
- ✓ Standard 12 month warranty



Available with or without compaction unit, our Carousels come suited for 240L, 660L and 1100L mobile garbage bins.

See reverse side for more information.

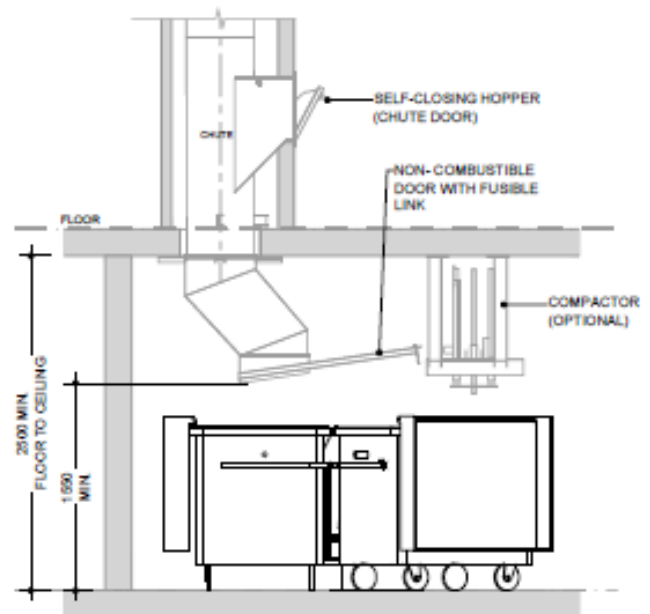
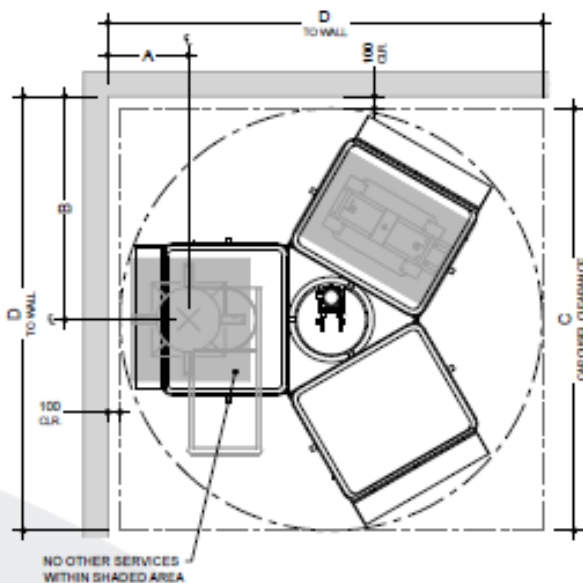


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1,100 LITRE CAROUSEL SYSTEM

No. of Bins	Reference (mm)			
	A	B	C	D
2	650	1700	3200	3350
3	650	1850	3460	3600
4	650	2050	3940	4050

Available with or without compaction unit, our standard 1100 litre bin Carousel System is available in standard 2, 3 or 4 bin options. Our 5 Bin option is available as a special order.



Notes:

Bins not provided by Elephants Foot

Drawings shown are for general information purposes only and provide minimum equipment spatial requirements for waste room design.

These drawings are not intended for site specific use or for construction. Each project is unique and will be designed to suit.

Additional equipment options, systems and configurations are available. For design assessment, information and advice, please contact an Elephants Foot design consultant on 1300 435 374

Source: Elephants Foot, 2023.

Appendix D Standard Signage

Waste Signage

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the NSW EPA.

Standard symbols for use in signage, bin facade and educational materials are promoted through the NSW Environment Protection Authority. They are available for download from the NSW EPA website (NSW EPA 2016b), in black and white and colour versions. The Australian Standard series AS 4123 (Part 7) details colours for mobile waste containers (Standards Australia 2008).

Figure 3: Examples of standard signage for bin uses



Safety Signs

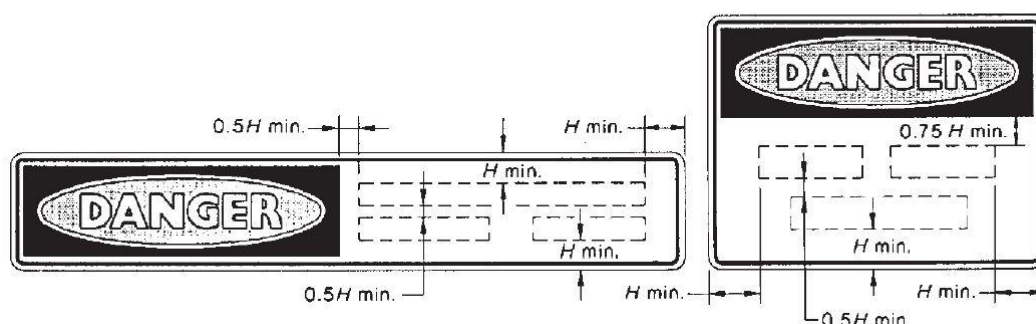
The design and use of safety signs for waste and recycling rooms and enclosures should comply with AS 1319 (Standards Australia 1994). Safety signs should be used to regulate, and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Clear and easy to read 'NO STANDING' and 'DANGER' warning signs must be fixed to the external face of each waste and recycling room where appropriate.

Figure 4: Example and layout of safety signage



(d) Horizontal

FIGURE D5 TYPICAL ARRANGEMENTS OF DANGER SIGNS



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