

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2025/1674

Date: 15 September 2025



Colliers

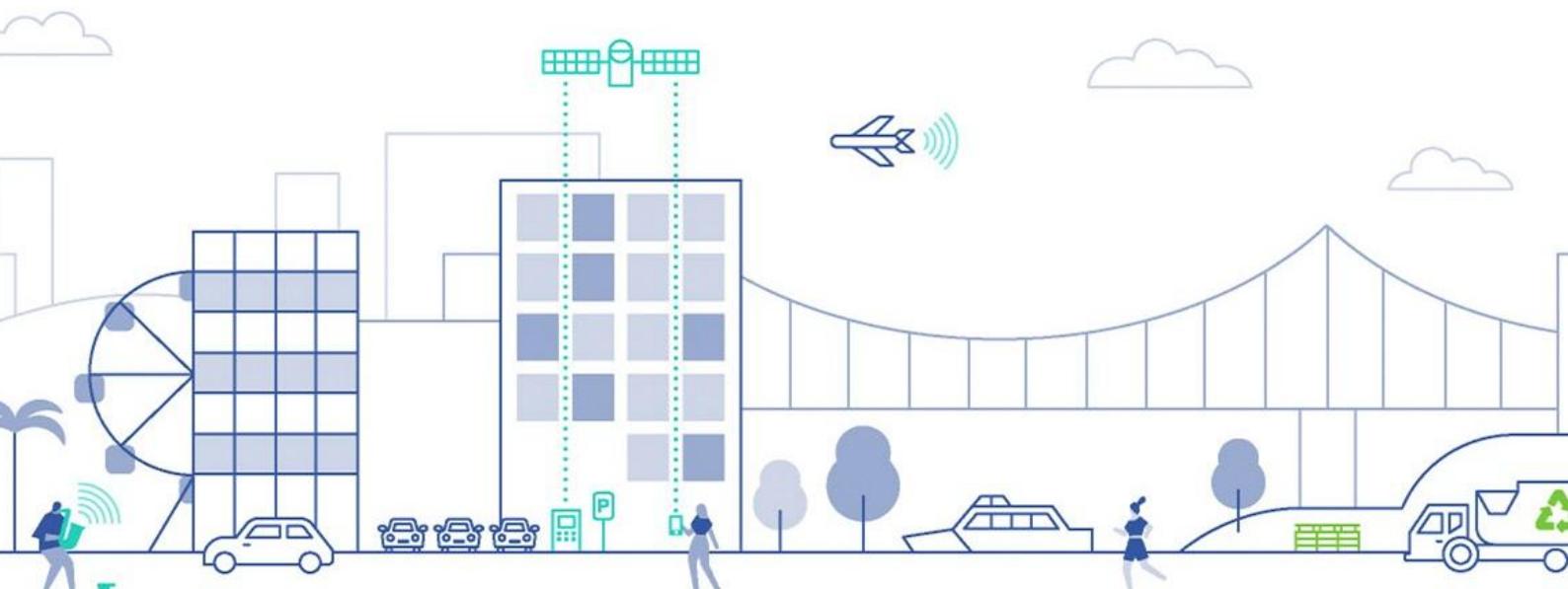


Operational Waste Management Plan

Proposed Retirement Living Development

At 42 Park Rd, Yeronga

On Behalf of Retire Australia



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Revision Record

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Contents

1	Introduction	5
1.1	Background	5
1.2	Scope.....	5
1.3	Site Analysis.....	6
1.4	Development Information	7
2	Refuse Management.....	8
2.1	Regulatory & Governance Considerations	8
2.2	Prescribed Refuse Volumes.....	11
2.3	Refuse Disposal	12
2.4	Refuse Storage & Access Requirements.....	14
2.5	Refuse Transfer	17
2.6	RCV & Bin Servicing Arrangements	19
3	Operational Waste Recommendations	20
3.1	On-going Management	20
Appendix A	Site Plans.....	25
Appendix B	Refuse Signage	28
Appendix C	Terms & Abbreviations	31

Table Index

Table 1-1: Scope Items.....	5
Table 1-2: Development Statistics	7
Table 2-1: Planning Scheme Compliance Checklist	8
Table 2-2: Refuse Generation Rates.....	11
Table 2-3: Refuse Calculations	11
Table 2-4: Disposal of Frequently Generated Refuse.....	12
Table 2-5: Disposal of Infrequently Generated Refuse	13
Table 2-6: Refuse Storage Area Design Requirements.....	16
Table 2-7: Refuse Transfer Path Design Elements.....	17
Table 3-1: Implementation Checklist	21
Table 3-2: Occupation/Operation Checklist	23
Table 3-3: Review and Amendment Phase	24

Figure Index

Figure 1-1: Site Location	6
Figure 1-2: Site Location 2	7
Figure 2-1: Residential Refuse Chute Room.....	14
Figure 2-2: Refuse Storage and Collection Room.....	15
Figure 2-3: Refuse Transfer Path.....	17
Figure 2-4: Refuse Transfer Path and Collection	18

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1 Introduction

1.1 Background

Colliers International Engineering & Design (TTMC) has been engaged by Retire Australia to prepare an Operational Waste Management Plan (OWMP) to support the proposed retirement living development located at 42 Park Road, Yeronga. It is understood that a development application will be lodged with Brisbane City Council (BCC).

1.2 Scope

The content of this OWMP is intended to provide information on the typical movement of waste streams from generation to collection. The items covered within the OWMP are described in Table 1-1.

Table 1-1: Scope Items

Item	Description
Refuse streams	Identification of refuse streams & anticipated development refuse volumes likely to be produced
Refuse separation	Recommendations for appropriate segregation methods for each refuse stream
Refuse collections	Assessment of refuse collection vehicle (RCV) access and manoeuvring
Refuse storage	Detailed analysis of refuse storage facilities and design
Refuse transfer	Assessment of refuse transfer between refuse storage and collections areas
Refuse disposal	Recommendations for refuse disposal within the development
Refuse management equipment	Identification of recommended and optional refuse management systems and equipment
Refuse management operations	Recommendations for operational efficiency and ongoing management, including refuse minimisation, tenant education and safety
Building design	Recommendations for design of refuse management facilities

Detailed information including site plans and drawings, recommended refuse management equipment and system specifications, common refuse signage as well as a list of terms and abbreviations are provided in the appendices.

The recommendations in this report relate to the operational phase of the development only. Additional requirements for refuse management during or after demolition or construction phases are not included and require a dedicated plan.

1.3 Site Analysis

The site is located at 70 Park Road, Yeronga and is known as Building D. The site is formally described as lot 1 on SP328496. The site is as depicted in Figure 1-1 and Figure 1-2. The site has a road frontage on both Villa Street and Park Road.

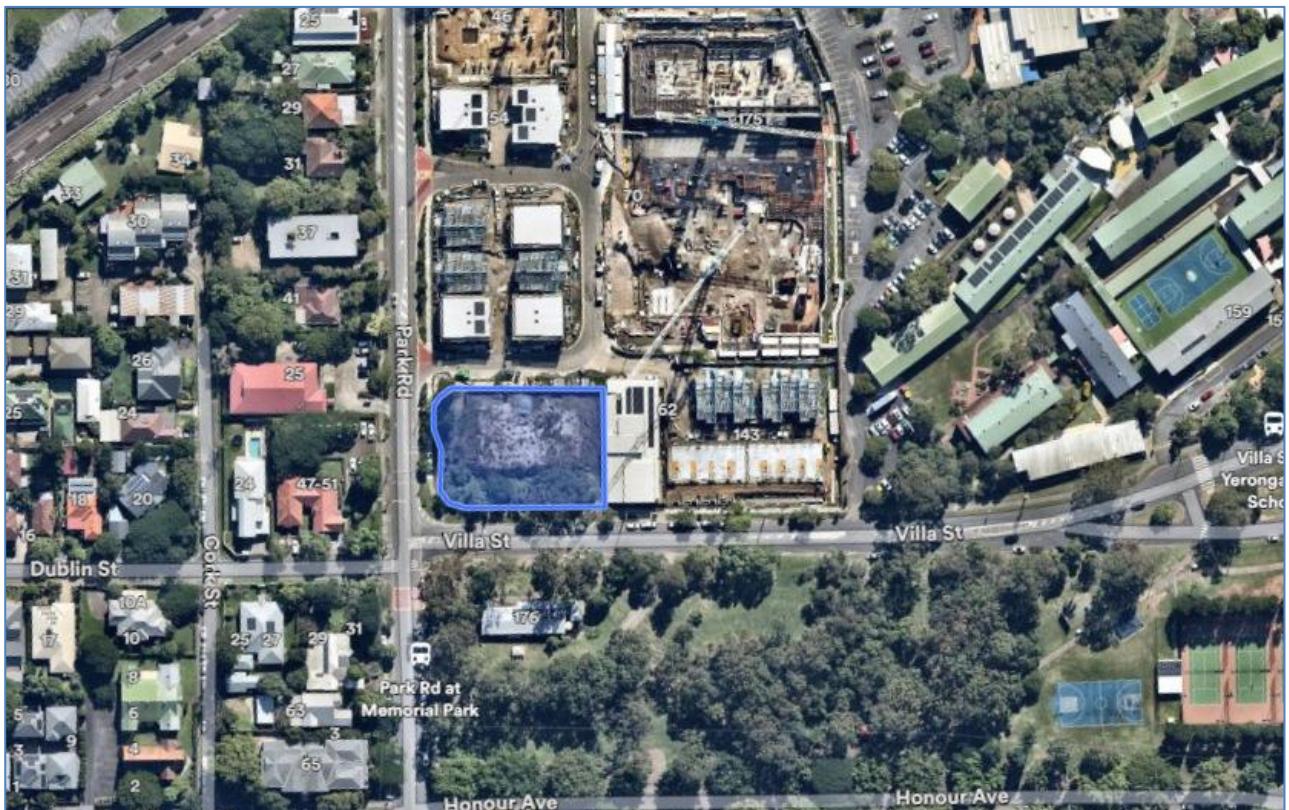


Figure 1-1: Site Location

Source: Nearmaps, image dated 08/05/2025



Figure 1-2: Site Location 2

Source: Marchese Partners, Project: Arcadia Building D, Drawing: A1.20, Rev: C, Plan: Masterplan

1.4 Development Information

The proposed development consists of independent living units and communal (care co-located use) space. The relevant refuse generating areas are presented in Table 1-2.

Table 1-2: Development Statistics

Description	Measure
Independent Living Units	58 Units
Communal Area (Care co-located Use)	256 (GFA m ²)

2 Refuse Management

This section provides the detailed refuse information and associated calculations in addition to outlining the arrangements for the collection, storage, transfer, and disposal of refuse within the development as deemed to satisfy council's current assessment benchmarks. This includes associated bin quantities, storage capacities, equipment details, collection frequencies and site access details.

2.1 Regulatory & Governance Considerations

This plan has been prepared to align with BCC's refuse requirements of SC6.26 Refuse Planning Scheme Policy (PSP) v32. As this development is a residential site, Colliers has referred to BCC requirements as outlined in the Refuse PSP under section 2, 3 and 5 as these sections outline the controls for all development and controls directly related to non-residential uses.

Table 2-1: Planning Scheme Compliance Checklist

BCC SC6.26 Refuse Planning Scheme Policy		
Item	Requirement	Compliance / Comment
Section 2 – General Requirements		
(1)	A written design proposal for waste collection is to be provided giving full details of the proposed solution, bin sizes, number of bins and the storage and collection areas, frequency of collection and the refuse collection vehicle size. Table 1 provides the dimensions and types of bins. Table 3 provides the specifications and types of collection vehicles.	Details provided in this OWMP.
(2)	The collection of refuse is to be considered during the planning phase of development. This includes the physical manoeuvring area for the refuse collection vehicle and the bin storage areas and collection points. Access for other road users including pedestrians, cyclists, motorists and other service providers (e.g. postal) is to be maintained.	Details provided in this OWMP.
(3)	The type of refuse service that is to be used (domestic or commercial) is identified, including whether the refuse collection vehicle is to be front loading, side loading or rear loading (sufficient height must be available).	Details provided in this OWMP.
(4)	Uses with high trip-end densities provide a transport impact assessment report in accordance with the Transport, access, parking and servicing planning scheme policy with an assessment of refuse storage and collection included.	Refer to Traffic Engineering Documentation.
(5)	Where a Refuse Collection Vehicle (RCV) is required to manoeuvre from an on-site position, allow an additional 500mm clearance for vehicle turning dimensions (swept paths) and servicing. Three clear swept path lines must be demonstrated for the RCV, namely wheel path, vehicle body path and 500mm clearance path.	Refer to Traffic Engineering Documentation.
(6)	The waste collection system is to achieve the following outcomes: <ol style="list-style-type: none"> both the customer and service provider can access the bin storage area and collection point conveniently, the location, design and operation of the bin storage and collection system do not have unreasonable adverse acoustic, odour or visual impacts on the development, surrounding properties or the streetscape, the supply and servicing of either mobile garbage bins or bulk bins or refuse compactors complies with the requirements of this planning scheme policy. 	Complies – Details provided in this OWMP.

Section 3 - Access and Manoeuvrability

(1)	The manoeuvring of the refuse collection vehicle is undertaken in a safe and efficient manner, without detrimental impacts to pedestrian amenity or safety, Council or private infrastructure or the function of the road network.	Refer to Traffic Engineering Documentation.
(2)	For multiple dwelling development accessed via a local, neighbourhood, district or suburban road, the refuse collection vehicle may enter the site in a reverse gear in a single movement.	Neighbourhood roads - Onsite collection proposed accessed via internal road.
(3)	For multiple dwellings development accessed via an arterial road, or where the refuse collection vehicle cannot reverse onto the site in a single movement, the refuse collection vehicle must enter and leave the site in a forward gear.	N/A
(4)	For development (other than a multiple dwelling) accessed via an arterial, suburban, district or minor road adjacent to an intersection with a major road, the refuse collection vehicle must enter and leave the site in a forward gear.	N/A
(5)	Where refuse collection is from an on-site position, the area trafficked by the refuse collection vehicle must comply with requirements under the Transport, access, parking and servicing planning scheme policy including a minimum aisle/carriageway width of 6.5m wide.	Refer traffic engineering documentation
(6)	For detached dwellings on rear lots, pavements/carriageways trafficked by a refuse collection vehicle have a minimum width of 5.5m.	N/A
(7)	All entry and exit points are of a width and design that allows for sufficient ingress and egress for the refuse collection vehicle, including a minimum 6.5m crossover which is free from overhead projections inclusive of gardens or trees.	Compliant
(8)	To maximise safety, the distance required for refuse collection vehicles to reverse on-site is minimised. Where on-site turnaround of the refuse vehicle cannot be achieved, the bin storage area and collection point is located within 20m of the street frontage.	Compliant
(9)	Turnaround facilities for a refuse collection vehicle exist or are provided for where involving staged subdivision developments or where development is located on a no through road. Turning and manoeuvring facilities for refuse collection vehicles are provided to meet design requirements for the vehicles identified in Table 3.	N/A
(10)	Subdivision layouts are to provide for the safe and efficient operation and manoeuvring of a side-lift loading refuse collection vehicle. Layouts that require a refuse collection vehicle to reverse more than 20m are to be avoided. Where the provided transport network results in a stub road for a proposed future road connection, interim turnaround facilities must be provided in compliance with the Transport, access, parking and servicing planning scheme policy and the Infrastructure design planning scheme policy.	N/A
(11)	Adequate lift clearances are provided to overhanging trees and wires in accordance with Table 3.	Complies.
(12)	The required vertical and horizontal clearances are provided for the service to operate safely and efficiently. Operational clearance dimensions are shown in Table 3 for various types of collection arrangements.	Complies.
(13)	Access for a refuse collection vehicle to the collection point is maintained at all times.	Complies.
(14)	Where non-residential development is proposing to use an alternative design vehicle other than those named in Table 3, written confirmation from the proposed licensed waste collection contractor giving full details of the bin size and the refuse collection vehicle size must be provided.	N/A

(15)	In instances where the gradient of the on-site manoeuvring area is greater than 5% (1:20), the pad that the collection vehicle will stand on while accessing refuse bins at the collection point, is to have a maximum gradient of 2% (1:50).	N/A
Section 5 – Non-Residential Refuse Collection		
(1)	Non-residential development is to provide sufficient capacity to achieve low-frequency servicing in line with Table 2.	Compliant
(2)	Refuse generation rates for specific uses are provided in Table 4. These figures are to be used to calculate the refuse and recycling capacity required. <i>Note—Where a refuse generation rate is not defined in Table 4, the applicant is responsible for providing evidence in support of the refuse generation proposed.</i>	Compliant
(3)	Sufficient information is provided to demonstrate that refuse collection can occur in an efficient and safe manner on site without adverse impact on amenity (acoustic, odour or visual impacts) and pedestrian and vehicular traffic.	Compliant
(4)	This information may include evidence from a refuse collection contractor to demonstrate that collection will occur outside normal service/delivery or business times, where seeking permission to allow a refuse collection vehicle to use service bays or parking spaces on the site for access.	N/A
(5)	Bulk bins of 1.1m ³ or less are positioned so that collection personnel do not have to move them more than 5m. If a gradient is evident, speed bumps are provided to stop bulk bins from rolling away from the collection point. <i>Note—Standard design arrangements, including gradients, are contained in the Transport, access, parking and servicing planning scheme policy.</i>	Compliant
(6)	Bulk bins of 1.5m ³ or more are positioned so that front-lift refuse collection vehicles can drive directly to the container without relocating the bulk bin. If this cannot be achieved due to physical constraints, then the bulk bins are not moved more than 3m from the storage area to the collection point.	N/A – 1.1 m ³ proposed
(7)	<p>The storage area for refuse bins are:</p> <ul style="list-style-type: none"> a) contained either within a building or a roofed and wholly screened enclosure of sufficient size for the bin quantity required. Table 1 provides the bin types and dimensions, <p><i>Note—Where screening is utilised to form part or all of a refuse storage area, the screening is to have a maximum of 25% openings, with a maximum opening dimension of 50mm, and are to be permanently fixed, durable and maintainable.</i></p> <ul style="list-style-type: none"> b) easily accessible for occupants and for the required servicing of bins, <p><i>Note—Allow for at least an additional 0.5m clearance surrounding each container, or for the storage of multiple bins, 1.5m clearance around the combined bin area (whichever is lesser).</i></p> <ul style="list-style-type: none"> c) screened from neighbouring properties to mitigate impacts from odour, amenity and noise, d) of a design to mitigate the harbourage of vermin or attraction of scavenging animals, e) provided with natural or temperature-controlled ventilation if in an enclosed room, f) of a design which maintains a minimum internal vertical clearance of 2.1m, g) kept clear of obstructions, such as fixed bay separators, that impede the ability to change from existing bin sizes or which otherwise limit future refuse collection options, h) are not to contain other amenities such as air-conditioning compressors, hot water systems or electrical hubs. 	<ul style="list-style-type: none"> a) Compliant, b) Compliant, c) Compliant, d) Compliant, e) Compliant, f) Compliant, g) Compliant, h) Compliant.

(8)	Best practice may include allowing additional space for the storage of extra containers to separately store either organic waste or other recyclables in the future.	N/A
(9)	Where disposal of industrial or commercial liquid waste by discharge to a road tanker, the road tanker is to be wholly on-site during collection.	N/A

2.2 Prescribed Refuse Volumes

The refuse volumes utilised for the calculation of the required refuse storage areas are based on Brisbane City Council's planning scheme policy, specifically table 4 in SC6.26.

2.2.1 Refuse Generation Rates

Refer to Table 2-2 for the accepted Refuse Generation Rates.

Table 2-2: Refuse Generation Rates

Generation Rate	Applied To	Measure	General Waste	Combined Recycling
Retirement Living	All Units	L / Unit / Week	80	80
Communal Areas (Office)	Communal Areas	L / 100 m ² /Day	10	20

2.2.2 Non-Residential Refuse Volume Calculations

Refer to Table 2-3 for the accepted refuse volume calculations of the development.

Table 2-3: Refuse Calculations

Area Description	Measure	Quantity	General Waste L/Week	Commingle Recycling L/Week
Independent Living	Units	58	4,640	4,640
Communal Areas	GFA (m ²)	256	179	358
Total Weekly Volumes (L / Week)			4,819	4,998
Volumes per Day (L / Day)			688	714
Volumes per Collection (L / Collection)			2,754	2,142
Collection and Equipment Details	Collections per Week		2	2
	Storage Capacity		4 Days	4 Days
	Equipment Size		1,100L	1,100L
	Equipment Quantity Required		2.50	2.60
	Equipment Quantity Provided		3	3

2.3 Refuse Disposal

The tables in this section summarise general recommended disposal arrangements for frequently generated and infrequently generated refuse for each development component. Section 2.3.1 describes the frequently generated refuse streams that are generated in high volumes for any given period and require significant capacity for storage prior to collections. Section 2.3.2 describes the infrequently generated refuse streams that are generated in relatively low volumes, and where minimal provision for storage can be easily managed by collection frequency and ad hoc storage arrangements.

2.3.1 Frequently Generated Waste

Table 2-4: Disposal of Frequently Generated Refuse

Refuse Stream	Disposal Details
WASTE	
General Waste	<p>Retirement Living</p> <p>Space for bins to store one day's worth of generated refuse will be provided in each unit. Each day or as required, all refuse will be transferred by residents to the dual-chute access hatch on each floor.</p> <p>Waste bins should always be lined with bags and the bags tied before removal. Waste bins should be accompanied by a commingled recycling bin in order to facilitate separation of general waste and recycling. Residents will be responsible for their own refuse generated in communal areas.</p>
Organic (Food) Waste	<p>Separating organic or food waste from general waste is recommended for all uses to reduce the total amount of general waste produced. Separation may be considered and begin at any stage during the operational phase of the development.</p> <p>Caddy bins or bins no larger than 60L should be used for disposal of food waste. The bins are then transferred to the refuse room for collection. The content is then decanted in bulk bins or processing equipment provided within the refuse enclosure.</p> <p>While BCC does not currently offer a food organics collection service to multiple unit dwellings, commercial options are available at additional cost.</p>
Refuse Stream	Disposal Details
RECYCLING	
Commingled, including:	<p>Residential</p> <p>Items for recycling must not be bagged and disposed in loose form. This can be done by decanting the materials from the individual receptacles into the dual-chute access hatch on each floor. Space for bins to store one day's worth of generated commingled recycling will be provided in each residential apartment. Residents will be responsible for their own refuse generated in communal areas.</p>
	<p>Container deposit / refund schemes are currently in place in Queensland. Various models exist including bottle return facilities and (automated) reverse vending machines.</p> <p>Occupants should be encouraged to separate containers that qualify for the schemes from the waste or recycling streams and send back to a return point. Storage space or dedicated bins within the units or refuse rooms can be provided.</p>

2.3.2 Infrequently Generated Waste

Table 2-5: Disposal of Infrequently Generated Refuse

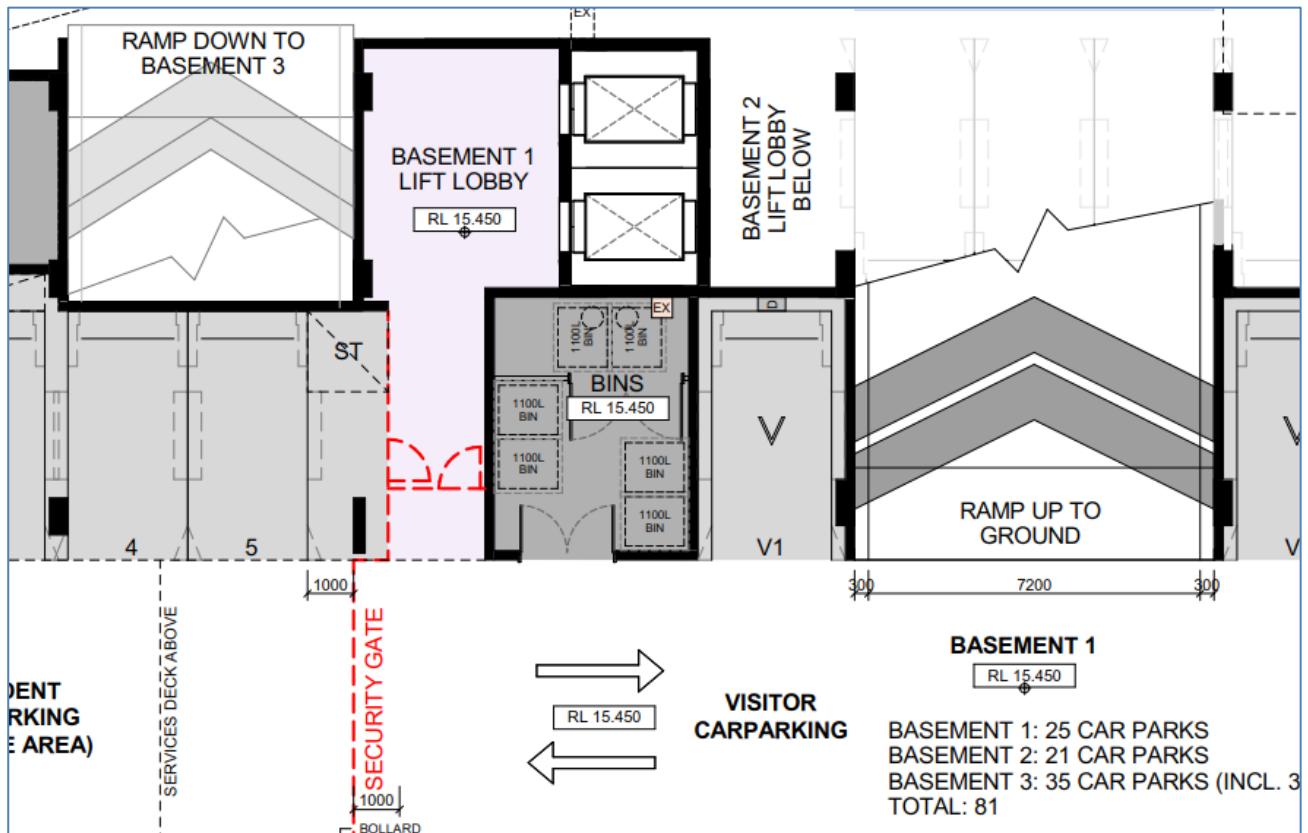
Refuse Stream	Disposal Details
Garden Organics refuse / Green Waste	Garden organic refuse also referred to as green waste will be produced from landscaped areas or potted plants around this development. Green waste is produced largely on a weather or seasonal dependent basis and based on plant selections. Green waste is usually removed by the designated maintenance contractor. Interim storage is not provided. The engaged contractor will be required to send this material to a composting or resource recovery facility rather than to a landfill.
Hard Waste / Bulky Goods	Hard waste collections will be coordinated in line with BCC's hard waste collection arrangements and managed by building management. Hard waste / bulky goods will be moved to the loading or a designated area for removal prior to collection. When storing bulky goods in a loading area, it is recommended that items are placed on a pallet for efficient loading via a pallet jack or forklift onto the RCV.
Hazardous Waste - Batteries	Batteries are highly volatile and must be disposed of separately and never in the general waste or commingled recycling bins. A 10L battery receptacle will be placed within the caged off area of the chute termination room. This will be used for residents only. A 5L battery receptacle will be placed within the communal refuse room for use by commercial tenants only. Building management will be responsible for organising the disposal of this waste stream on an as required basis.
Hazardous Waste (paints and cartridges) Electronic Waste	Where applicable, occupants usually make their own arrangements for the disposal of specialised or hazardous waste and electronic waste such as recycling of toner cartridges. Please refer to BCC and QLD government websites for disposal options. It is expected that the building management assist with disposal of hazardous, electronic, or liquid waste and any paint or chemicals as required and requested. Hazardous waste must be handled with due care, separated, and securely stored for collection by a specialist waste contractor. Please refer to local BCC and QLD government websites for further information.

2.4 Refuse Storage & Access Requirements

All refuse will be disposed and stored within bins housed within dedicated refuse storage areas. Tenants in the independent living units will use the chute access hatch to dispose of their refuse.

2.4.1 Refuse Chute Room

Figure 2-1 shows a potential configuration for the refuse chute room. The configuration and size of this enclosure is provided to ensure the majority of bins are either directly accessible for disposal or can be easily rotated. Bins will be transported by building management to the temporary storage room prior to collection.



2.4.2 Refuse Storage/Collection Room

Figure 2-2 shows a potential configuration for the refuse storage and collection room. The configuration and size of this enclosure is provided to ensure the majority of bins are either directly accessible for disposal or can be easily rotated by building management to the temporary storage room prior to collection.

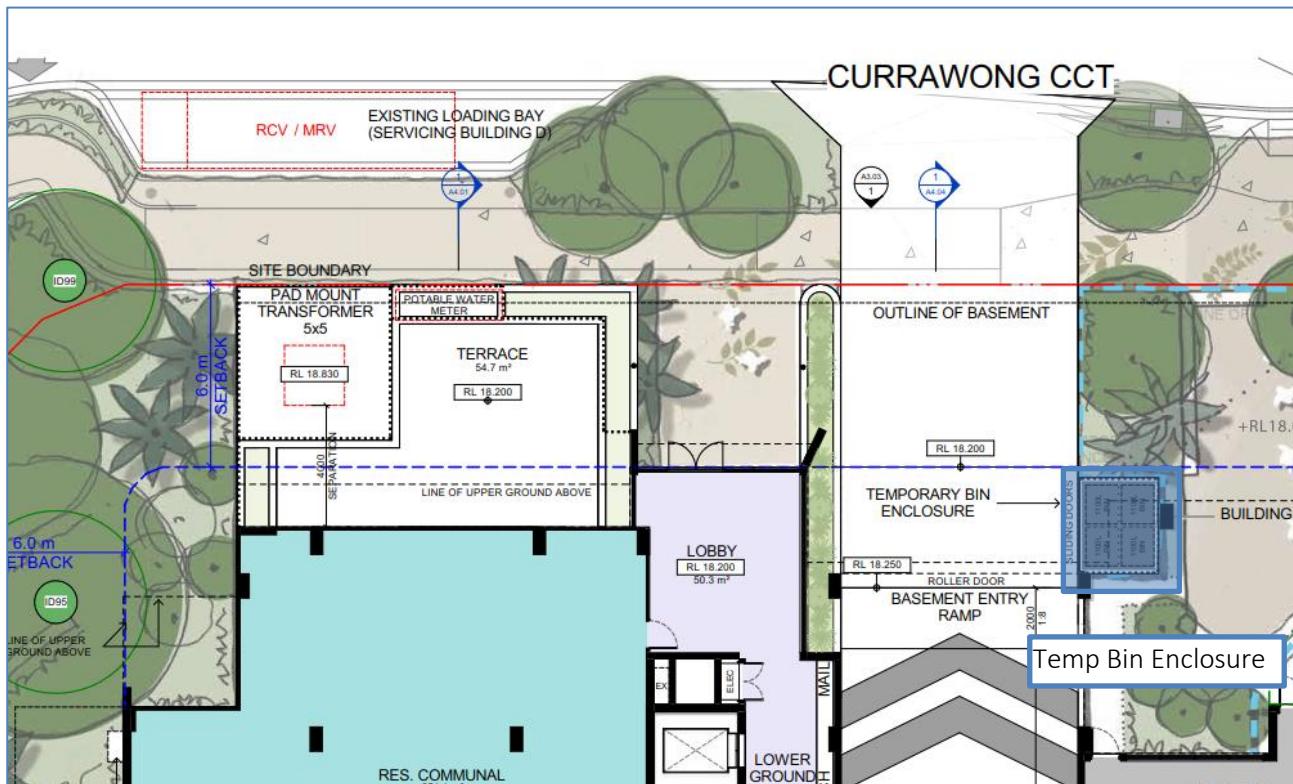


Figure 2-2: Refuse Storage and Collection Room

Source: marchese partners, Project: Parkside Yeronga, Drawing: A2.04, Rev: F, Plan: Lower Ground Floor, Date: 10/06/2025

2.4.3 Design Requirements

Table 2-6 outlines the refuse storage area design criteria addressed in order to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area.

Table 2-6: Refuse Storage Area Design Requirements

Positioning Considerations
Positioned to be directly accessible to the designated loading point
Is in a purpose-built storage area which is vermin proofed and used solely for the storage of refuse leaving the site or specifically designed for service vehicle use only.
Not located adjacent to or within any habitable portion of a building or place used in connection with food preparation (including food storage).
Is positioned away from entrances to shops or residential premises
Is over 5m from any door, window or fresh air intake within the development or any adjoining site.
Visual Amenity Considerations
Is enclosed on all sides except for the access points to ensure bins are not visible from a public place, neighbouring properties, passing vehicles or pedestrian traffic external to the site.
Is designed to minimise their visual impact on the surrounding areas.
Functional Design Considerations
Is of sufficient size to accommodate the bins with sufficient clearance around the combined bin area
Doors / shutters wide enough to allow for the easy removal of the largest container to be stored.
Permits unobstructed access for removal of the containers to the service point.
The height of the bin storage area allows for waste bins to be opened and closed.
Does not have any steps or lips.
Adequate artificial lighting.
Bin Washing and Room Cleaning Considerations
A hose cock provided inside the room for cleaning bins and the enclosure.
The walls, ceilings, floors, and equipment are to be designed and constructed of impervious material with a smooth finish to allow for easy cleaning.
The floors to be graded to fall to a drainage point.
Drainage points connected to sewer in accordance with trade waste requirements.
Roofed and designed to prevent entry by rainwater.

2.5 Refuse Transfer

Prior to collection, the site's caretaker will manually move bins from the refuse chute room to the storage room for collection by the collection contractor. The caretaker will also be responsible for returning bins to the refuse room after service. Refer to Figure 2-3 for the transfer path that building management will use.

Table 2-7: Refuse Transfer Path Design Elements

Refuse Transfer Path Design Elements
The bins to be transferred via hard stand pathway.
Allows bins to be easily manoeuvred.
Does not impede traffic flow.
Does not extend through any habitable parts of a building or food premise
Does not have any lips, stairs, or steps for bins to be manoeuvred easily.

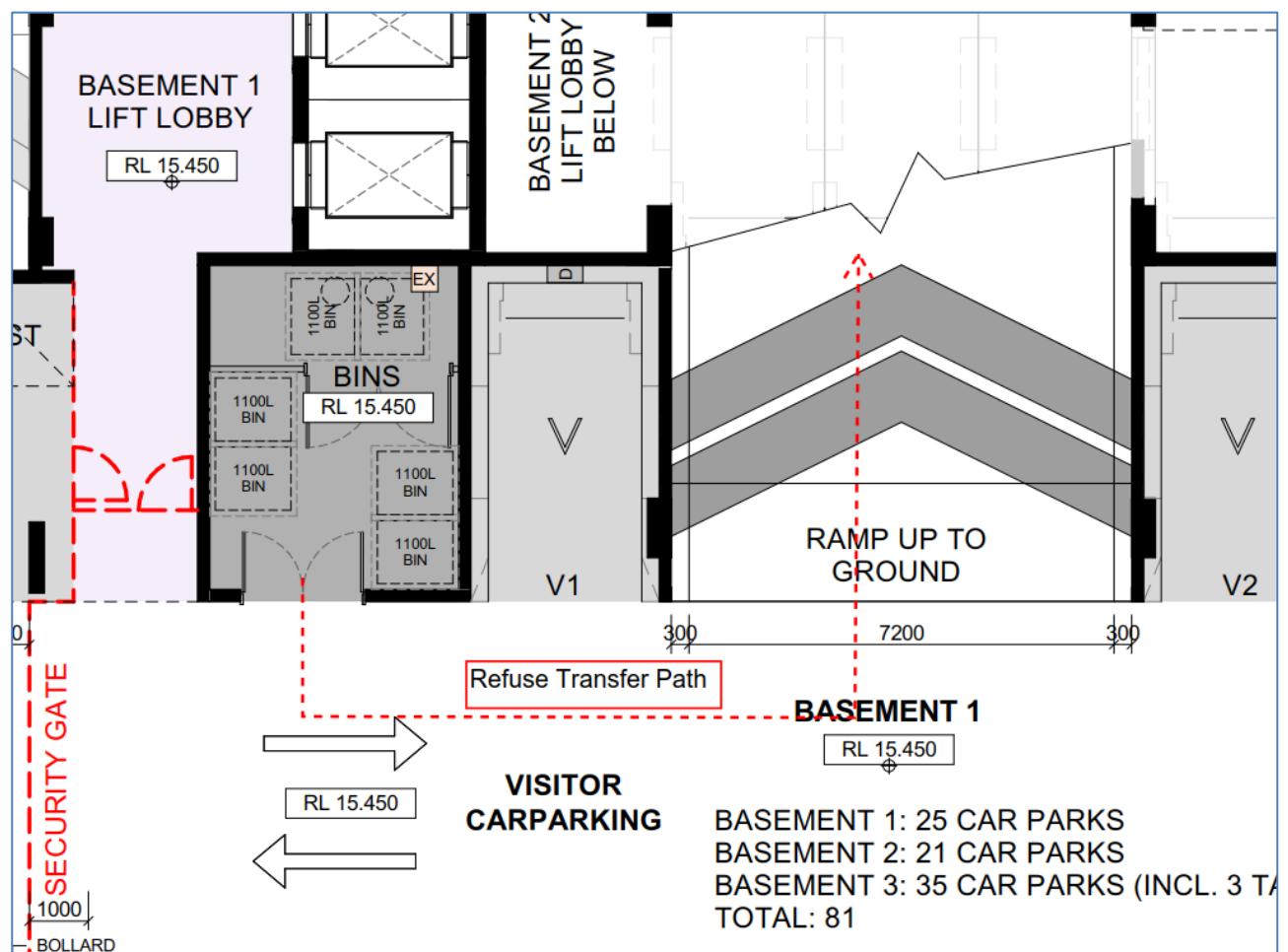


Figure 2-3: Refuse Transfer Path

Source: marchese partners, Project: Parkside Yeronga, Drawing: A2.03, Rev: E, Plan: Basement 1, Date: 11/07/25

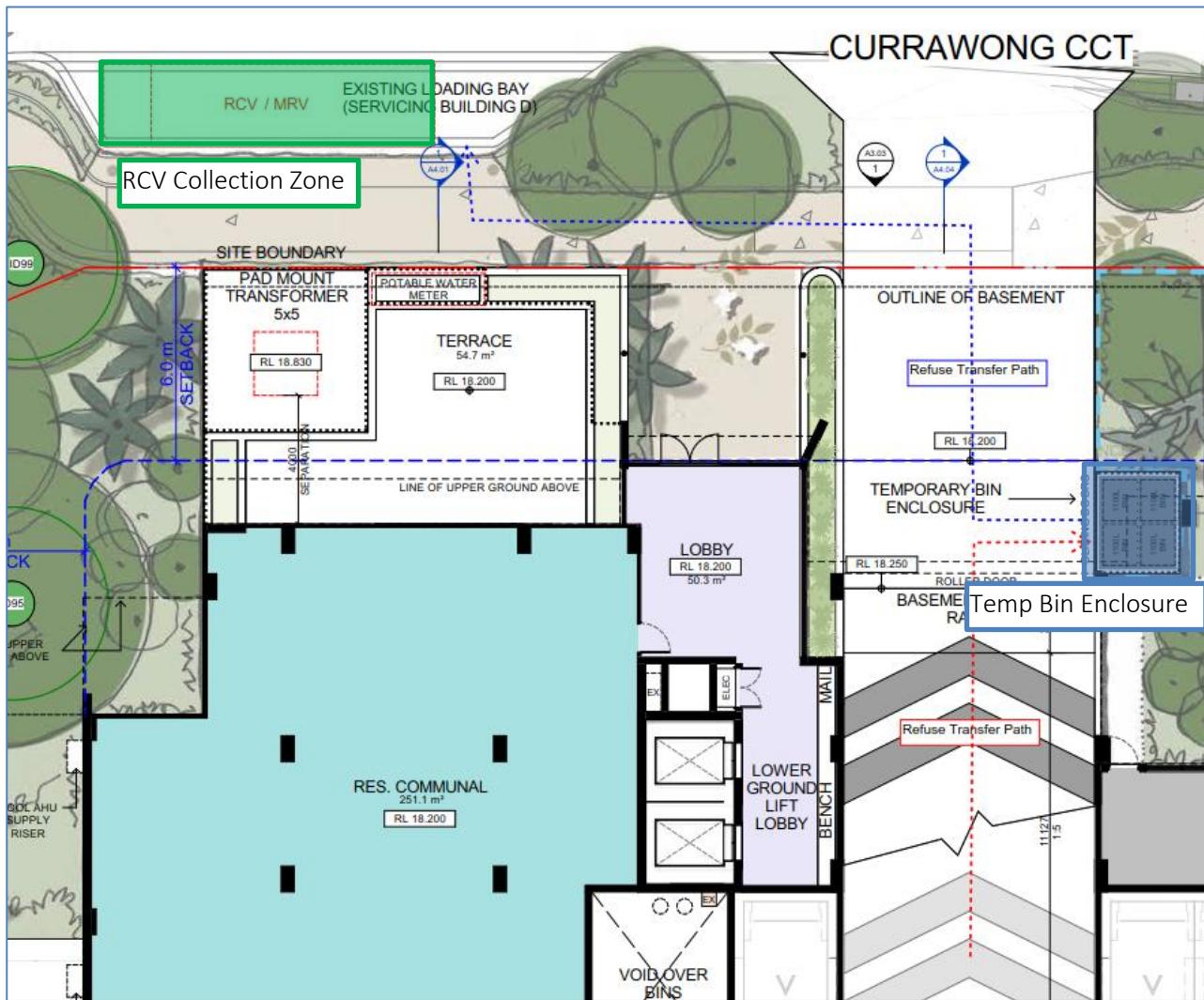


Figure 2-4: Refuse Transfer Path and Collection

Source: marchese partners, Project: Parkside Yeronga, Drawings: Lower Ground Floor, Date: 11/07/25

Due to the gradients of the transfer path, a mechanical aid in the form of a bin-tug will be required for the building managers use only. This will be stored in the chute room. The chute room will be locked to everyone other than the building manager.

2.6 RCV & Bin Servicing Arrangements

All refuse will be collected by a private collection contractor directly from the temporary bin storage room. The contractor will take the bins to the rear of the collection vehicle and perform the service. Once the bins have been serviced, they will be returned to the bin storage room where building management staff / caretaker will rotate the bins to the chute discharge room for use as required and per business-as-usual operation.

EDQ Engineers had identified in the pre-lodgement meetings that they would support an on-street loading bay collection method. A flat grade is provided between the temporary bin enclosure and the RCV loading area, it's also an existing loading bay which is currently in operation and used. Collection contractors perform a safety / risk assessment prior to the initial collection service to identify and mitigate any potential safety concerns, for these reasons Colliers support the use of the on-street loading bay for servicing of the refuse bins.

The type of vehicles allocated, and demand will be subject to final design and potential selection of volume reduction equipment. The collection days and frequency form a part of the contract between building management and council's contractor and is agreed to, based on both the building and contractors' business requirements.

Further details on vehicle access and on-site manoeuvring can be found in the traffic report.

3 Operational Waste Recommendations

This section does not contain information relevant for regulatory assessment.

This section relates to the outcomes and waste management practices of the development during the operational phase as recommended by Colliers. It is intended for use as a live document by the end user of the development to assist with the ongoing management of the development.

3.1 On-going Management

The tables below relate to a cycle of ongoing implementation, operation, review, and amendment of the refuse strategy. These tables are intended to serve as a live document to be completed and updated during the operational phase of the development and therefore intentionally left blank.

Responsibilities have to be assigned for all on-going refuse management related activities during the operation of the development. Colliers recommend the appointment of dedicated personnel to champion refuse management and sustainability. The following lists (Table 3-1 to Table 3-3) are designed to help manage and assign responsibilities and monitor the refuse operations. On-going management of the refuse strategy will maintain efficient services, a safe environment and improve on sustainability outcomes.

3.1.1 Implementation Phase

Refuse management tasks during the implementation of the refuse strategy are required prior to and during the early stages of building occupancy. An opportunity to revisit these tasks is provided at set intervals with the review of the refuse strategy.

Table 3-1: Implementation Checklist

Task	Assigned	Remarks
<p>Certify the as-built form of all refuse related areas.</p> <p>This task does not refer to building certification but is typically undertaken by a specialist waste consultant prior to building certification. This offers an opportunity to identify variances in building form versus design and recommend alternate or mitigating refuse management strategies.</p> <p>This task may also be needed during building refits / renovation..</p>		
<p>Appoint personnel to oversee or undertake refuse management tasks.</p> <p>A caretaker is to be appointed to undertake most operational tasks, engaging contractors for specialist tasks.</p>		
<p>Conduct internal safety review.</p> <p>An internal safety review is required to be undertaken to identify potential hazards in the implementation of the refuse strategy and risk mitigation opportunities.</p> <p>This includes the use of any refuse management equipment installed, as well as refuse transfer paths</p>		
<p>Development of policy and procedures</p> <p>Must be undertaken after safety review and abide by all relevant occupational health and safety legislation, regulations, and guidelines to ensure site safety for visitors, staff, and contractors.</p> <p>Also includes assessment of any manual handling risks and preparation of a manual handling control plan for waste and bin transfers.</p>		

Task	Assigned	Remarks
<p>Engage refuse collection contractors.</p> <p>Council's appointed collections contractor must conduct a site visit for the purposes of risk assessing the site prior to conducting services. Contractors must ensure that a full risk assessment of equipment, surfaces and related gradients is complete and procedural documentation is provided to the appropriate personnel.</p> <p>The establishment of service frequency and timing is also undertaken at this time.</p>		
<p>Install signage in all refuse disposal and storage points.</p> <p>Signage is required to be installed to educate building occupants on location of disposal and refuse storage points. Additionally, to identify the accepted items disposed of in each refuse. The installed signage should be colour coded in accordance with AS 4123.7 – 2006 Mobile waste containers. Examples of signage are provided in the appendices.</p>		
<p>Body Corporate & Leasing Agreements</p> <p>All body corporate and leasing contracts should contain clauses pertaining to waste management arrangements and use of any associated equipment.</p>		
<p>Education and Training.</p> <p>Provision of equipment manuals, induction, training, health and safety procedures, risk assessments and personal protective equipment (PPE) to all staff / contractors associated with all waste management activities in order to control hazards.</p> <p>The step is repeated through the operational phase of the development as required due to changes in users or personnel.</p>		
<p>Consider fit out and move-in refuse.</p> <p>Higher volumes of waste are generated during the initial occupant move-in or final fit out. This typically includes large volumes of cardboard. Additional bins or collections may be required.</p> <p>This also applies to high turnover events and refits.</p>		

3.1.2 Occupation/Operational Phase

Refuse management tasks during the occupation or operational phase of the development relate to the day to day and business as usual operational tasks that must be undertaken to execute the refuse strategy.

Table 3-2: Occupation/Operation Checklist

Task	Assigned	Remarks
Facilitate disposal from communal areas, public realm, and tenancies. Appointed staff are required to monitor refuse generated in communal areas and the public realm and transfer to the refuse storage area for final disposal if required, this includes litter removal.		
Manage rotations of bins to ensure convenient access. Check bin fill levels and rotate / swap bins as required. Sufficient capacity must be provided for the disposal of all streams at all times including reduced personnel on site (such as weekends or public holidays). Where equal access to a refuse stream is not maintained, other streams may be contaminated leading lost resources.		
Manage bin transfers to temporary holding or agreed servicing point. Bins are required to be presented to the agreed servicing point prior to the scheduled service time and ensure the area is free from obstruction. Late bin placement or servicing obstruction may lead to missed bin services.		
General cleaning. Regular cleaning and maintenance of all refuse management facilities is important to maintain a safe and hygienic environment for visitors, staff, and contractors. General cleaning is required for all refuse holding and transfer areas including: <ul style="list-style-type: none"> • Refuse bins, rooms, and storage areas, • Refuse transfer areas including lifts and staircases, • Any other refuse management equipment. 		
Perform spot checks on bin contents and refuse streams. Appointed staff regularly check for compliance and stream contamination. Early intervention prevents the development of poor practice and lost resources. Feedback and education are provided to the relevant parties (see below).		
Ongoing education and communication. On-going education is important to ensure people continue to use the facilities as originally intended and to avoid ongoing contamination of recoverable refuse streams. Appointed personnel should be actively involved in education of occupants and encouraging participation in recycling activities. Widespread communication of the achievements of the refuse strategy and areas for improvement encourage participant buy-in.		

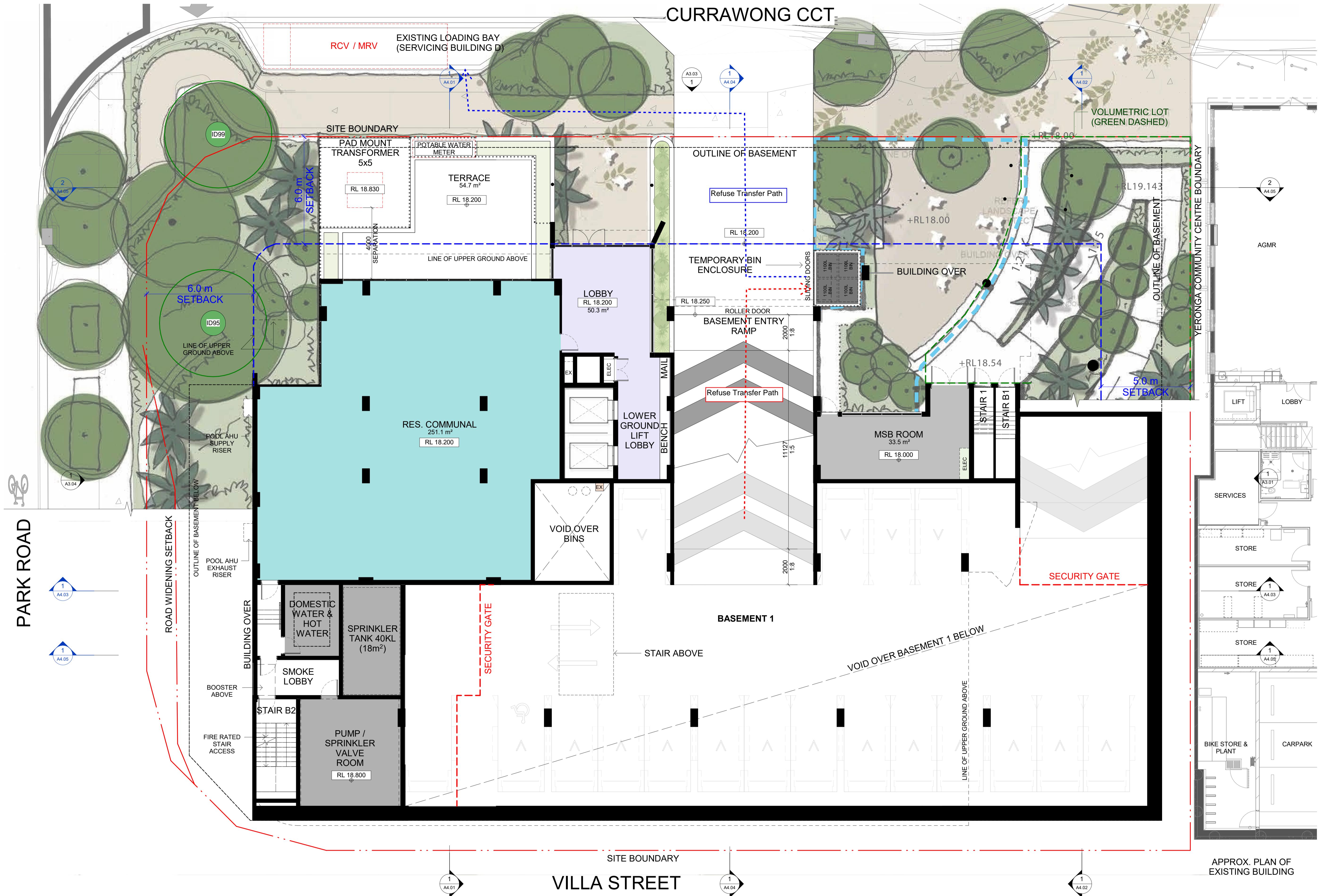
3.1.3 Review/Amendment Phase

The review and amendment refuse management tasks relate to tasks undertaken on a routine (e.g. quarterly, bi-annually, or annually) or ad-hoc basis. At the completion of the review and amendment phase, the cycle restarts with the implementation of the amended refuse strategy.

Table 3-3: Review and Amendment Phase

Task	Assigned	Remarks
Coordination of specialised cleaning contractors as required. Typical specialised cleaning services may include cleaning internal areas of compaction equipment (if selected); this reduces risk of blockage, odour, and risk of fire.		
Maintenance and servicing of refuse management equipment as per schedule. Frequency depends on equipment, building operation and manufacturer specification. Routine maintenance reduces downtime and detrimental impact of unscheduled equipment breakdown.		
Coordination of specialised equipment contractors as required. May extend to ad hoc services requiring specialist equipment such as bulky / hard waste removal.		
Internal safety review. Routine safety reviews are required to identify changes to the site, work practices or legislation that may impact existing policies and procedures. Reviews should include visual inspection of equipment and user PPE. Any policy or procedure updates arising from a safety review must be immediately communicated.		
Review bin quantities and refuse management equipment. Reviewing bin quantities and equipment is required ensure operational sustainability of refuse volumes and equipment remains fit for purpose. Consideration should be given where alternate equipment may provide improved outcomes. This review may form part of the external audit process (above) as recommendations made.		

Appendix A Site Plans



Appendix B Refuse Signage

Refuse Signage

Waste signage guideline are provided by the Queensland government:

<https://www.qld.gov.au/environment/pollution/management/waste/recovery/recycling/signage>.

General Refuse Signage



Other Refuse Signage



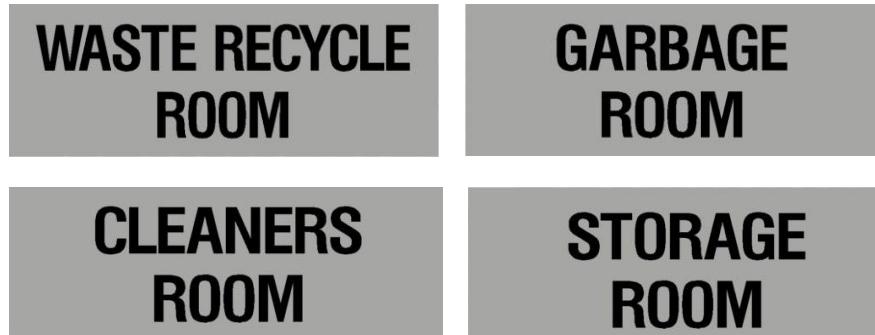
Colour coding as per AS 4123.7-2006

Mixed (Commingled) Recycling	PMS 108
General waste (landfill)	PMS 032C
Organics	PMS 15-0343
Paper and cardboard recycling	PMS Process Blue C
Soft Plastics	PMS 1655
Used Cooking Oil	Grey

Other Refuse, Facility and Safety Signage

Various signage including refuse area, safety and facility signage should be arranged through certified signage providers. Example signs can be found at <http://www.signblitz.com.au>, <https://www.wayout.com.au> or <https://www.smartsign.com>.

Example Refuse Room Signage



Example Facility Signage



Example Safety Signage



Appendix C Terms & Abbreviations

In this OWMP, a term or abbreviation has the following meaning unless indicated otherwise:

TERM	ABBREVIATION	DEFINITION
Equipment		
Bin (Refuse Bin)		A plastic or steel container for disposal and temporary storage of waste or recycling items. Various types and sizes exist for different items and purposes. Examples include residential unit bins, bulk bins, MGB, steely bins and specialised for medical waste or cigarette butts.
Bin Storage Area		An enclosed area designated for storing on-site refuse bins or a refuse compactor within the property.
Bulk Bin		A galvanized or steel bin receptacle that is greater than 360L in capacity generally ranging from 1.00m ³ to 4.50m ³ used for the storage of refuse that is used for on-site refuse collection.
Bulk Mobile Garbage Bin	Bulk MGB	A plastic (polypropylene) receptacle that is greater than 360L in capacity generally ranging from 660L to 1100L used for the storage of refuse.
Collection Point		An identified position where refuse bins are stored for collection and emptying. The collection point can also be the bin storage area.
Compactor		A receptacle that provides for the mechanical compaction and temporary storage of refuse. It allows to reduce bin numbers and collection frequency.
Composter		A container or machine used for composting specific food scraps and/or organic materials.
Food Waste Recycling System		Defined as a vacuum or pump-based system for shredding, macerating, or pulping of food waste. The food waste is transferred through pressure (service) pipes to sealed liquid storage tanks.
Green Waste		All vegetated organic material such as small branches, leaves and grass clippings, tree and shrub pruning, plants and flowers.
Liquid Waste		Non-hazardous liquid waste generated by commercial premises should be connected to sewer or collected for treatment and disposal by a liquid waste contractor (including grease trap waste).
Mobile Garbage Bin	MGB	A plastic (polypropylene) bin or bins used for the temporary storage of refuse that is up to 360L in capacity and may be used in kerbside refuse collection or on-site collection.
Putrescible Waste		Putrescible waste is the component of the waste stream liable to become putrid and usually breaks down in a landfill to create landfill gases and leachate. Typically applies to food, animal, and organic products.
Recycling		Recycling contains all material suitable for re-manufacture or re-use, e.g. glass bottles and jars; plastics such as PET, HDPE, and PVC; aluminium aerosol and steel cans and lids; milk and juice cartons; soft drink, milk, and shampoo containers; paper, cardboard, junk mail, newspapers, and magazines.
Refuse		Refuse is material generated and discarded from residential and commercial buildings including general waste, recyclables, green waste, and bulky items.
Refuse Storage Room		An area identified for storing on-site MGBs or Bulk Bins within the property.
Refuse Trolley		A cart on wheels that can be used to collect smaller quantities of refuse from different areas or rooms of a building or site and wheel the collected refuse to a (bulk) bin storage area where it is disposed. Refuse trolleys are commonly used in hotels or offices.
Regulated Waste		Regulated waste is waste prescribed under legislation as regulated waste.

TERM	ABBREVIATION	DEFINITION
Transfer (Manual Transfer)		Manual transfer means physical transfer of refuse material and associated bulk bins or trolleys without assistance.
Waste		Waste is referred to as refuse material with the exclusion of recycling, green waste, hazardous waste, special waste, liquid waste, and restricted solid waste.
Waste (General Waste)		General waste is generally referred to as material free of any actual or apparent contamination such as pathological / infectious, radioactive materials and / or hazardous chemical. Reporting use is for material considered to be free of food waste.
Wheelie Bin		A MGB of up to 360L, usually with 2 wheels for easy transfer. A common type is a 240L wheelie bin used for kerbside collection in many residential areas.
Measures		
Cubic Metre	m ³	Volume in cubic metre(s) related to refuse management equipment.
Ground Floor Area	GFA	The GFA of all storeys of a building is measured from the outside of the external walls or the centre of a common wall. It is commonly measured in square metres.
Kilogram	kg	Kilogram(s) related to refuse weight.
Litre	L	Litre(s) related to refuse volumes.
Square Metre	m ²	Square metre(s) related to refuse areas.
Ton	T	Ton(s) related to refuse weight.
Collection Vehicles		
Body Truck		A conventional heavy vehicle with a covered loading area. It is generally not specifically designed for emptying the content of bins into the truck during refuse collections but can be used to carry entire (full) bins for servicing by bin swap-over.
Refuse Collection Vehicle	RCV	A vehicle specifically designed for collecting and emptying refuse bins and refuse compactors.
Rear-End-Loading Refuse Collection Vehicle	REL RCV	A truck specially designed to collect municipal solid waste and recycling, typically 240L wheelie bins to 1100L bulk bins, from rear loading mechanism and haul the collected waste to a solid waste treatment facility.
Tank Truck		An RCV that is specifically designed to collect liquid wastes such as waste cooking oil and food waste pulp. The waste is typically pumped from a waste storage tank into the truck via a hose. Liquid waste management equipment is often provided by the contractor who collects the waste and operates the truck.