Colliers

Operational Waste Management Plan

Proposed Social Housing Residential Development

At 75 Adrian Circuit, Nirimba

On Behalf of BlueCHP Limited

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Revision Record

Issue No.	Author	Reviewed/Approved	Development Stage / Revision Description	Date
1.	N. Lee	S. Kenny	Schematic Design – OWMP Draft	10/03/2025
2.	N. Lee	S. Kenny	Schematic Design – OWMP FI Response	25/03/2025
3.				
4.				

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1 Introduction

1.1. Background

Colliers International Engineering & Design (TTMC) has been engaged by BlueCHP Limited to prepare an Operational Waste Management Plan (OWMP) to support a proposed social housing residential development located at 75 Adrian Circuit, Nirimba. It is understood that a development application has been lodged with Economic Development Queensland (EDQ) and a Further Issues Letter issued for development application number DA2024/1580.

It is further understood that this OWMP will be submitted to council, as a deferral agency of EDQ, for approval as part of a response to the Further Issues, specifically in addressing items 6 and 7.

1.2. Client Brief and Scope

Given the development's proposed use as a social housing development, the waste management strategy must be simple to use and meet the accessibility requirements of the development's demographic. Additionally, the waste management facilities provided on site are intended to limit the level of building management intervention required, this in turn supports the affordability of housing by reducing ongoing operational expense. As much as possible, the waste strategy has designed to be self-sufficient.

The content of this OWMP is intended to provide information on the typical movement of waste streams from generation to collection.

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. 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

1.3. Site Analysis

The site is located at 75 Adrian Circuit, Nirimba and is formally described as Lot 8013 on Plan SP344654 as depicted in Figure 1.1.

The site is located on a corner lot with frontages on Aura Boulevard, Park Avenue, Phillip Lane and Adrian Circuit. All vehicular access into the site will occur via Adrian Circuit.

The site is located within the Caloundra Site Priority Development Area (PDA) and sits within an Urban living zone.

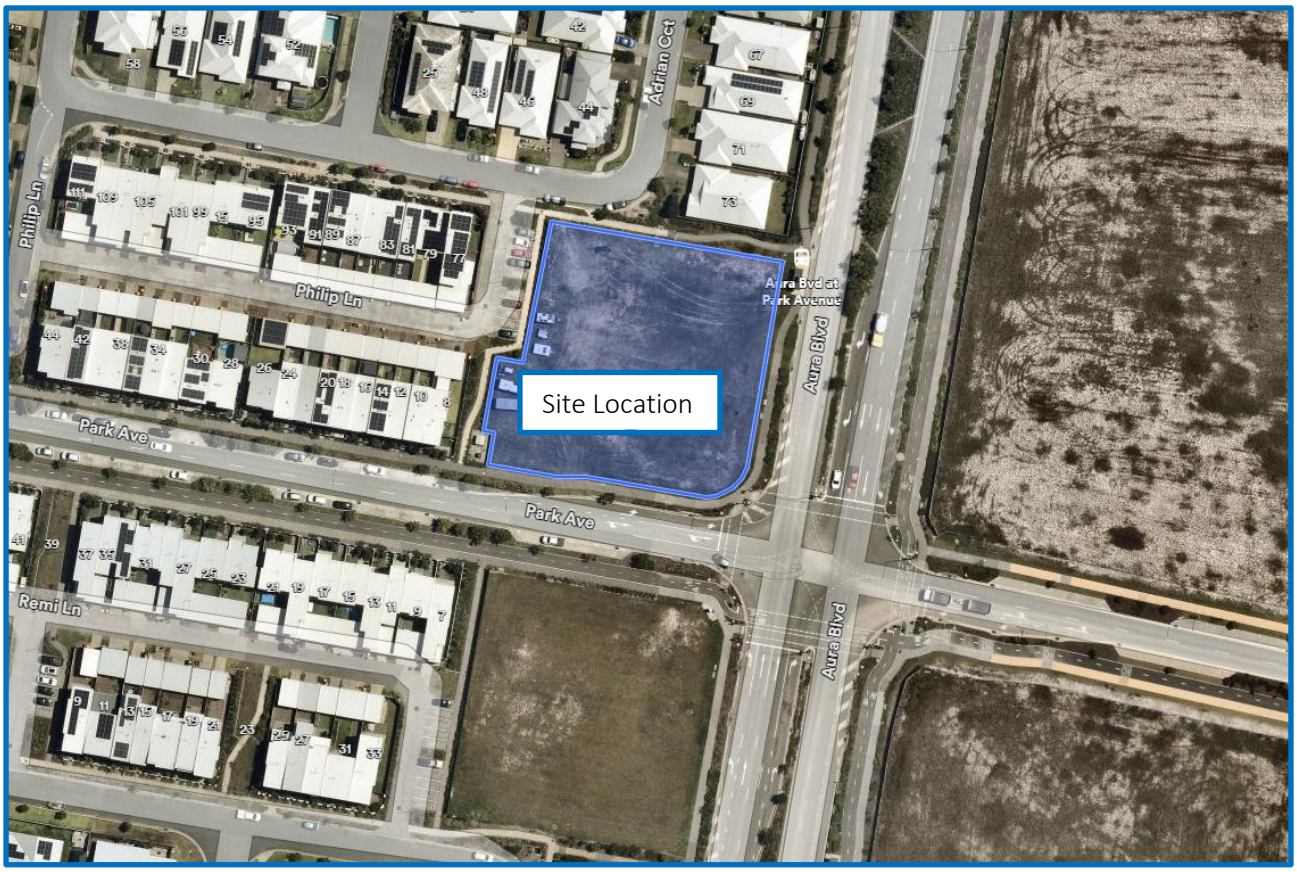

Figure 1.1: Site Location
Source: Nearmap, image dated 25/01/2025

1.4. Site Statistics

The proposed social housing development consists of an articulated building over 2 storeys. All units within the development are designed to a Gold liveable standard as described in the Queensland Government's Social Housing Design Guideline (SHDG) Toolkit Technical Summary Sheets March 2024.

Figure 1.2 provides a summary of the development as context for the volume information provided in Section 2.

PROPERTY DESCRIPTION	PROPERTY DESCRIPTION			
LOTS	8013			
SP	344654			
LOCAL GOV	SUNSHINE COAST REGIONAL COUNCIL			
AURA	PRECINCT 10 STAGE 10			
SITE AREA	**3334m²**	**REQUIRED**	**PROVIDED**	**COMPLIANT**
GFA	GF = 894m² L1 = 1362m²	N/A	= 2256 = 67.7%	N/A
SITE COVER	2088m²	60% MAX.	= 62.6%	NO
UNITS	30	N/A	= 30	N/A
UNIT SHDG STANDARD	GOLD	=100%	= 100%	YES
UNIT EDQ ACCESSIBILITY	PDA GUIDELINE	=10% (3 UNITS)	= 13.3% (4 UNITS)	YES
COMMUNAL OPEN SPACE	347m²	10% MIN.	= 10.4%	YES
PRIVATE OPEN SPACE	GF = 452m² L1 = 264m²		= 716m² = 21.5%	N/A
DEEP SOIL PLANTING	175m²	5% MIN.	= 5.2%	YES
CAR PARKING RESIDENT SPACES VISITOR SPACES EV CHARGING STATIONS	30+7.5 1/UNIT 0.25/UNIT 10%	=37.5 = 30 = 7.5 = 3.8	= 37 = 29 = 8 = 4	NO NO YES YES
BIKE PARKING RESIDENT SPACES VISITOR SPACES EB CHARGING STATIONS	30+7.5 1/UNIT 0.25/UNIT 10%	= 37.5 = 30 = 7.5 = 3.8	= 38 = 30 = 8 = 4	YES YES YES YES

Figure 1.2: Development Statistics

Source: Idearchitecture, Project: Aura Social Housing BlueCHP, 75 Adrian Circuit Housing, Nirimba, Drawing: Development Statistics, Drawing Number: DA_0002, Issue: J

2 Regulatory Refuse Management Requirements

This section provides the detailed refuse calculations and describes the arrangements for the collection, storage, transfer and disposal of refuse within the development as deemed to satisfy the regulatory authorities current assessment benchmarks. This includes associated bin quantities, storage capacities, equipment details, collection frequencies and site access details.

2.1. Regulatory and Governance Considerations

2.1.1. State Government Development Scheme

This plan has been prepared to align with the refuse related goals and requirements outlined in the Caloundra South PDA Development Scheme.

Whilst the application has been submitted to EDQ as a development application, it is noted that the site is located within the Sunshine Coast Council local government area. As such, where relevant this development has been designed to align with the respective provisions of the Sunshine Coast Council City Plan 2014 as outlined in Section 2.1.3.

2.1.2. State Government Design Guidelines

As this development proposes the supply of social housing, Colliers has referred to the Queensland Government's Social Housing Design Guideline (SHDG) Toolkit Technical Summary Sheets March 2024 under *Bins*, as this section relates specifically to refuse requirements.

Table 2.1 demonstrates the refuse management items addressed to align with the SHDG Toolkit.

Table 2.1: OWMP QLD Government Design Guidelines Checklist

Social Housing Design Guideline Toolkit March 2024		
Item	**Requirement**	**Compliance / Comment**
Bins – Multi-unit developments		
(1)	Bin areas must be constructed in accordance with local council or waste collection services requirements.	Complies – See Table in *Appendix A* for compliance criteria addressed within this OWMP.
(2)	Liaise with Council at design stage to determine operational requirements. e.g. maximum number of wheelie bins.	Refuse strategy in accordance with council planning scheme.
(3)	Bulk bins preferred, subject to considerations such as: a. Available collection services b. Availability of bins with easily operable lids in 900mm to 1100mm height zone (for use by residents of Platinum Level dwellings). c. Frequency of collection (Multiple weekly collection services preferred).	1.1m^3 bulk bins proposed. a. Complies – RCV loading in general proximity to refuse enclosure. b. N/A – Gold level units only. c. N/A – Collection frequency of once per week per council requirements.
(4)	Locate on screened, hardstand area and group wherever possible.	Complies – Located within dedicated fully enclosed storage area with hardstand flooring.
(5)	Position away from private outdoor space, windows, pedestrian entries, including those of neighbours.	Complies – Storage located within fully screened and roofed enclosure, not visible from the public realm.
(6)	Locate under cover where possible, particularly if overlooked.	Complies – As above.

2.1.3. Council's Refuse Planning Scheme

As this development is located within the Sunshine Coast Council (SCC) Local Government Area, this plan has been prepared to generally align with Sunshine Coast Council's refuse requirements of Section 9.4.10 Waste management code and SC6.18 Planning Scheme Policy (PSP) for Waste Management Code.

As this development is a residential site, Colliers has referred to SCC's requirements for residential uses only as outlined in the PSP for Waste Management Code under section SC6.18.3, SC6.18.4, SC6.18.5 and SC6.18.6. Specific design details addressed to achieve compliance with SCC's Waste Management Code is located in *Appendix A.*

2.2. Prescribed Refuse Volumes

The refuse volumes utilised for the calculation of residential refuse storage are based on SCC's standard multiple dwelling refuse generation rate.

The standard generation rate is unchanged regardless of unit / dwelling size. The generation rate applied to refuse calculations below is a requirement for development consent and not reflective of actual refuse generation. Site specific auditing is recommended once the site is operational and reaches a minimum 80% occupancy to establish actual refuse generation of this site and enable refinement of waste strategy to ensure maximum efficacy.

The generation rates applied to calculations for this site exceed the recommended storage requirements found within the SHDG Toolkit.

A collection frequency of once per week has been established for both general waste and commingled recycling in line with SCC's preferred collection frequency for this site as outlined via email sent on 28/05/2024.

Table 2.2: Refuse Generation Rates

Generation Rate	Applied To	Measure	General Waste	Commingled Recycling
Multi-unit Dwelling Residential	All Units	L / Unit / Week	120	120

Table 2.3: Residential Refuse Calculations

Area Description	Measure	Quantity	General Waste L/Week	Commingled Recycling L/Week
1- & 2-Bedroom Gold Standard Units	Unit	30	3,600	3,600
Volumes per Day (L / Day)			514	514
Volumes per Collection (L / Collection)			3,600	3,600
Collection and Equipment Details	Collections per Week		1	1
	Storage Capacity		7 Days	7 Days
	Equipment Size		1,100L	1,100L
	Equipment Quantity Required		3.27	3.27
	Equipment Quantity Provided		4	4

2.3. Refuse Bin, Equipment Requirements and Specification

Table 2.4 and Table 2.5 outline the number of bins and additional equipment required or recommended for the development based on the volume calculations above.

As refuse volumes may vary from assessment benchmarks, bin numbers and sizes may need to be altered to suit the building operation and occupant needs.

Table 2.4: Bin Requirements

Refuse Stream	Bin / Storage – Size or Type	Number Required
General Waste	1,100L	4
Commingled Recycling	1,100L	4

Table 2.5: Additional Equipment

Description	Quantity	Capability / Specification - See *Appendix C* for further details
Individual Unit bins - Stream Separated Receptacles	60 Min.	A minimum of 1 receptacle for each stream is required in each unit. Refer to Section 2.4.1.
Refuse / Cleaners Trolleys	Optional	May be supplied if deemed suitable by site operators to assist residents in transfer of bulky or heavy refuse items to the refuse enclosure or from communal areas.
Battery Recycling Receptacle	1 (Optional & Recommended)	An optional service recommended by Colliers to be provided for communal use. May be supplied if deemed suitable by site operators as an opt-in commercial service (such as prepaid countertop mailable receptacle). Where provided, may be located in the refuse enclosure or alternate easily accessible location for the capture of mixed batteries for recycling to ensure separation from other waste streams.

2.4. Refuse Disposal

The tables in this section summarise general recommended disposal arrangements for frequently generated and infrequently generated refuse for each development component. Section 2.4.1 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 2.4.2 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.

2.4.1. Frequently Generated Refuse

Table 2.6: Disposal of Frequently Generated Waste

Refuse Stream	Disposal Details
WASTE	
General Waste	Space for bins to store one day's worth of generated refuse will be allocated in each residential apartment in a cupboard beneath the kitchen sink. Each day or as required, all refuse will be transferred by residents directly to the refuse enclosure on ground level for disposal into the appropriate bulk bin. Waste bins should always be lined with bags and the bags tied before removal. Operationally, bins used for general waste should be limited in size to 40L or less to reduce manual handling load in refuse transfer. 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 the disposal of their own refuse generated in communal areas such as the BBQ area.
Organic (Food) Waste	Separating organic or food waste from general waste is recommended 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. While Sunshine Coast Council does not currently offer a food organics collection service to multiple unit dwellings, commercial options are available at additional cost. Alternatively, domestic compositing equipment may be used by residents of individual units. Where food waste is separated, caddy bins or bins no larger than 10L should be used in residential kitchens for disposal of food waste. Transfer and collection should occur on a frequent basis to minimise odour amenity issues.
RECYCLING	
Commingled, including • glass • aluminum • steel cans • tins • cardboard • semi rigid plastics	Space for bins to store one day's worth of generated refuse will be allocated in each residential apartment in a cupboard beneath the kitchen sink next to the general waste bin. 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 communal bins provided. The lifts will be used for the vertical transfer of all recyclable materials for first floor residents. Recycling bins will usually be used for all recycling materials (commingled recycling). However, residents are encouraged to make use of the container refund scheme and separate eligible containers from the commingled recycling material (see below). Residents will be responsible for the disposal of their own refuse generated in communal areas such as the BBQ area.
	Container deposit / refund schemes are currently in place in Queensland. Various models exist including bottle return facilities and (automated) reverse vending machines. 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.

2.4.2. Infrequent Waste

Table 2.7: Disposal of Infrequently Generated Waste

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 with volumes dependent 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 accordance with council's hard waste collection arrangements for residential uses, and hard waste / bulky goods moved by residents to a designated area for removal prior to collection.
Hazardous Waste - Batteries	Batteries are highly volatile and must be disposed of separately and never in the general waste or commingled recycling bins. Colliers recommend a communal disposal point is provided by site management and located in an easily accessible location such as within the refuse enclosure.
Hazardous Waste (paints, chemicals) Electronic Waste	It is expected that the building operators assist residents with disposal of hazardous 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 in accordance with the requirements of the *Environmental Protection Regulation 2019*. Please refer to local and QLD government websites for further information.

2.5. Refuse Storage, Access and Rotation Requirements

All refuse will be stored within bulk bins housed within a purpose-built communal refuse storage enclosure. Residents will share use of communal bins; bins are not assigned to individual units.

The refuse enclosure has been designed to provide direct access to all bins at a single time for final disposal or each refuse stream, removing a requirement for bin rotation by building management.

The refuse enclosure is located just inside the Phillip Lane boundary to ensure convenient transfer of bins for servicing.

The refuse enclosure is sufficiently sized to accommodate all of the bins and equipment required for the development and outlined in Table 2.4, with an unobstructed aisle for bin manoeuvring.

Figure 2.1 illustrates the configuration of the bin enclosure. Note the enclosure gates will have full articulation, opening near 180° to sit flush with the wall for ease of bin manoeuvring.

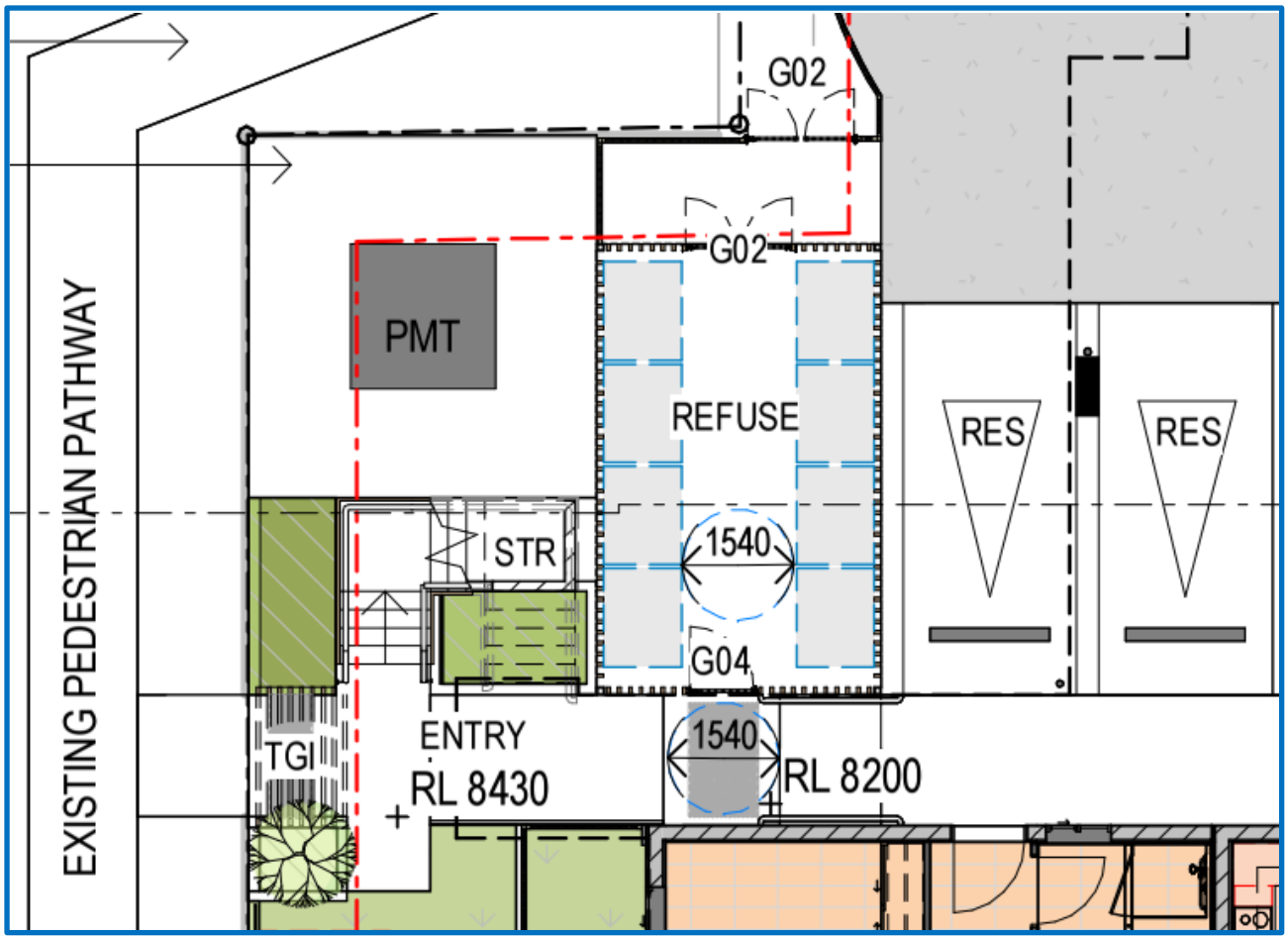

Figure 2.1: Refuse Storage Area Layout

Source: Idearchitecture, Project: Aura Social Housing BlueCHP, 75 Adrian Circuit Housing, Nirimba, Drawing: Floor Plan - Ground, Drawing Number: DA_1000, Issue: L

Table 2.8 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 2.8: Refuse Storage Area Design Requirements

Positioning Considerations
Positioned in immediate proximity or directly accessible to the designated loading point
Storage is provided conveniently accessible to residents for disposal.
Is in a purpose-built storage enclosure which is designed to be unattractive to vermin and used solely for the storage of refuse leaving the site 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
Does not vent (naturally or mechanically) to within 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 where bins are required to be moved.
Adequate artificial lighting.
Adequately ventilated, either naturally or mechanically in accordance with NCC requirements.
Bin Washing and Room Cleaning Considerations
A hose cock provided inside the enclosure for cleaning bins and the enclosures.
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.

2.6. Refuse Transfer

All refuse will be transferred vertically to the refuse enclosure for disposal via manual transfer methods by residents. Residents on the first floor will utilise the lifts provided for the vertical transfer of refuse.

The collecting contractor will collect all bins directly from the refuse enclosure just inside the property boundary, and manoeuvre to the RCV lifting mechanism with the RCV standing in an on-street position. The collecting contractor will then return bins to the refuse enclosure after service.

A direct hardstand path links the refuse enclosure to the RCV standing position. If required a pram ramp will be installed to move the bins from the pathway to the asphalt level of Phillip Lane.

Figure 2.2 depicts the collection transfer path.

The refuse transfer path has been designed to allow for:

The bins to be transferred via hard stand pathway.
Allows bins to be easily manoeuvred.
Designed to minimise impediment to 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.

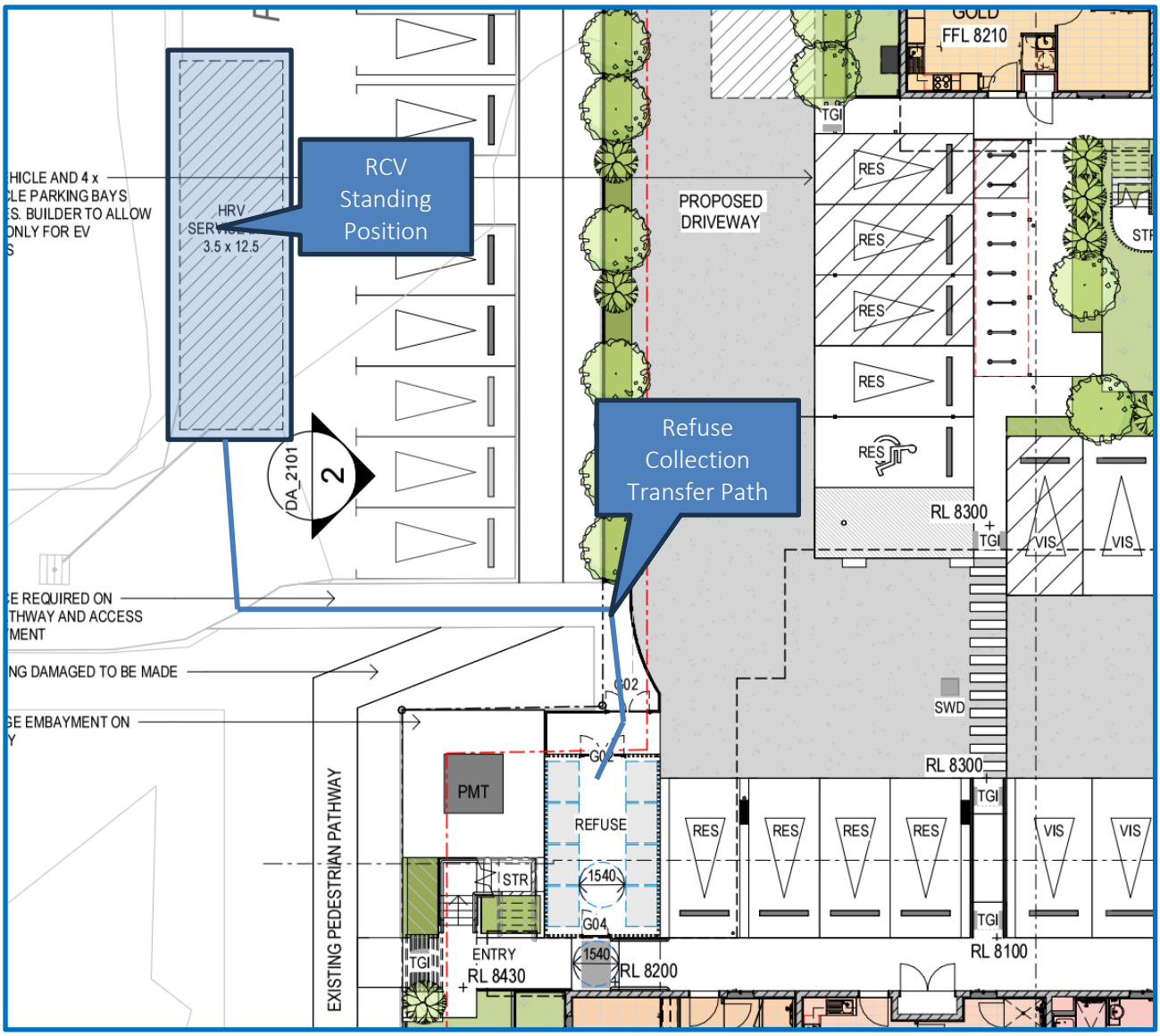

Figure 2.2: Refuse Collection Transfer Path

Source: Idearchitecture, Project: Aura Social Housing BlueCHP, 75 Adrian Circuit Housing, Nirimba, Drawing: Floor Plan - Ground, Drawing Number: DA_1000, Issue: L

2.7. RCV and Bin Servicing Arrangements

All refuse will be collected by rear loading RCV. Council's appointed collecting contractor will be responsible for the collection of all residential refuse.

On-street servicing, where the RCV does not enter the subject site is proposed. The RCV will stand on Phillip Lane for the servicing of the site bulk bins.

RCV's will stop on Phillip Lane with the rear of the vehicle approximately aligned with the hardstand transfer path to reduce bin transfer distance. No reversing of the RCV is required in the servicing of bins, with all vehicle movements occurring in a forward gear on the external road network.

The collecting contractor will return all bins to the refuse enclosure where building management will organise the cleaning of bins, and the enclosure as required for everyday use.

Further details on site vehicle access and on-site manoeuvring can be found in the transport engineering report submitted with the development application.

The bin servicing area has been designed with the following features:

Has sufficient access and clearance for the waste and recycling collection vehicles to service the bins, including no overhead obstructions.
Allows bins to be serviced safely while minimising the impediment to vehicle movements during servicing.
Is clearly separated from car parking bays, footpaths and pedestrian access.
Is devoid of stairs, lips or ramps and allows bins to be manoeuvred easily.
Does not block the entry and exit to the property.
Is not adjacent to a kitchen or eating area for public use.
Is over 5m from any door, window or fresh air intake within the development or any adjoining site.
Is positioned away from entrances to shops or residential premises.

3 Recommended Operational Refuse Management

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 TTMC. 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.

3.2. 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 will be assigned for all on-going refuse management related activities during the operation of the development. TTMC 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.

3.2.1. 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
Verify the as-built form of all refuse related areas. This task does not refer to building certification but is typically undertaken by a specialist waste consultant prior to building certification. This provides an opportunity to identify variances in building form versus design and recommend alternate or mitigating refuse management strategies. This task may also be required during significant building refits or renovation.		
Appoint personnel to oversee or undertake refuse management tasks. A building manager or caretaker is typically appointed undertakes most operational tasks, engaging contractors for specialist tasks.		

Task	Assigned	Remarks
Conduct internal safety review. An internal safety review is required to be undertaken to identify potential hazards in the implementation of the refuse strategy and risk mitigation opportunities. This includes the use of any refuse management equipment installed, as well as refuse transfer paths		
Development of policy and procedures 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. Also includes assessment of any manual handling risks and preparation of a manual handling control plan for waste and bin transfers.		
Engage refuse collection contractors. Council's 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.		
Install signage in all refuse disposal and storage points. 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.		
Leasing / Building Management Agreements All building management and leasing contracts should contain clauses pertaining to waste management arrangements and use of any associated equipment. This should also extend to on charging of costs and concessions for waste reduction and recycling performance.		
Education and Training. 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. The step is repeated through the operational phase of the development as required due to changes is users or personnel.		
Consider fit out and move-in refuse. 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. This also applies to high turnover events and refits.		

3.2.2. 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 and public realm. Appointed building manager / caretaker is required to transfer refuse generated in communal areas and the public realm to the refuse storage area for final disposal, 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 temporary holding or 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 • Refuse bins, enclosures and temporary storage areas • Refuse transfer areas including lifts and staircases • Any other refuse management equipment		
Perform spot checks on bin contents and refuse streams. Building management regularly check for correct bin use and stream contamination. Early intervention prevents the development of poor practice and lost resources. Feedback and education is provided to the relevant building occupants (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.		

3.2.3. Review and 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 Checklist

Task	Assigned	Remarks
Coordination of specialised cleaning contractors as required. Typical specialised cleaning services may include cleaning internal areas of specialist 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 refuse 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.		
Review service frequency and methodology on 6 monthly intervals with collecting contractor. The service frequency and service methodology should be reviewed once development is fully occupied and on rolling 6 monthly basis to ensure the optimum cost efficiency in services provided and explore options for additional services. Any potential changes to the bin numbers or bin sizes should be made in liaison with the appointed contractor to confirm cost or contract implications.		
Update and amend OWMP based on review outcomes. On completion of the refuse strategy review the OWMP should be updated to reflect refuse strategy amendments and to enable implantation of refuse strategy.		

Appendix A OWMP Compliance Checklist

Performance Outcomes	Acceptable Outcomes	Compliance / Comments
Waste Minimisation		
PO1 Development minimises waste generation (including construction, demolition and operational waste) and provides opportunities for re-use and recycling, where appropriate.	AO1 Development with the potential to generate significant amounts of waste is undertaken in accordance with an approved waste management plan, prepared in accordance with the **PSP for the waste management code**.	This OWMP is prepared in accordance with the PSP and identifies opportunities to reduce ongoing refuse generation.
Waste Storage		
PO2 Development provides adequate facilities on-site for the storage of waste and recyclable material, in a manner which minimises the potential for environmental harm and environmental nuisance.	AO2 A waste container storage area(s) is provided that is sited, screened and designed in accordance with the standards specified in the **PSP for the waste management code**.	Complies Storage for general waste and recyclables provided in a fully enclosed storage area.
PO3 Development provides for source separation and segregation of wastes, by providing convenient access to recycling containers, green waste containers and other specialised waste storage containers, as required, which are easily recognised and appropriate to the type and volume of wastes generated.	AO3 No acceptable outcome provided.	Complies Waste and Recycling separation provided, Landscaping / Green waste to be removed by landscape contractor.
Waste Servicing		
PO4 Development is designed to facilitate and allow for safe, unobstructed and efficient servicing of waste containers.	AO4.1 Where on-site waste collection services are proposed:- (a) the layout and internal trafficable areas of the development is designed to facilitate direct servicing of waste containers by the refuse collection vehicle in a safe, efficient and unobstructed manner; (b) refuse collection vehicle entry and exit from the *site* is carried out in a forward gear; and (c) the proposed point of servicing is designed to minimise the potential for nuisances to be caused by way of noise and odour.	N/A – On-street servicing is proposed.
	AO4.2 Where on-street (kerbside) waste collection is proposed for standard domestic waste containers, sufficient kerbside space is provided adjacent to the *frontage* of the premises for the required number of bins, and such space is;- (a) clearly separated from car parking bays, loading bays and other similar no-standing areas; (b) clear of overhanging branches, awnings and other such hindrances to servicing by a lifter arm; (c) clear of footpaths and pedestrian access connections to the road;	N/A – On-street collection of bulk bins proposed.

Performance Outcomes	Acceptable Outcomes	Compliance / Comments
	(d) not in front of shop entrances or private residential premises; (e) not blocking the vision of vehicles using the roadway or entering and exiting the property; (f) capable of being serviced safely without the collection vehicle impeding traffic flow during servicing; and (g) capable of being serviced while the collection vehicle travels forward (i.e. without the vehicle needing to reverse).	
	AO4.3 Where on-street waste collection is proposed for standard bulk bins:- (a) a storage embayment is provided just inside the property boundary alignment of the *site*, preferably next to the site access point, and adjacent to the likely point on the street where the bulk bin will be serviced by the contractor; (b) a reasonably level, smooth and nonslip access path is provided, from the temporary embayment continuous to the likely point on the street where a refuse collection vehicle will service the bin; (c) a lawful point exists on the street for the refuse collection vehicle to stand, at the likely point for bin servicing, such that the refuse collection vehicle is not required to "double park" and/or is not impeding traffic flow during servicing and is not blocking the vision of vehicles using the roadway or entering and exiting the property; and (d) at the point of collection, there is clear volumetric space available that is:- (i) clear of overhanging branches, awnings and other such hindrances to servicing by a lifter arm; (ii) clear of footpaths and pedestrian access connections to the road; (iii) not in front of shop entrances or private residential premises; and (iv) capable of being serviced while the collection vehicle travels forward (i.e. without the vehicle needing to reverse). Note—the **Planning scheme policy for the waste management code** contains guidance in relation to the achievement of AO4.1, AO4.2 and AO4.3. Editor's note—**Section 9.4.8 (Transport and parking code)** sets out additional requirements for service vehicle *access* and parking.	Complies – Servicing location negotiated with council based on existing collection routes. Refuse enclosure directly adjoins hardstand transfer path.
PO5 Development is designed to allow for safe and unobstructed manual handling and manoeuvring of standard domestic waste containers and standard bulk bins.	AO5 No acceptable outcome provided.	Complies Section 2.5 and 2.6 provides details on refuse storage and transfer.

Appendix B Site Plans

1 FLOOR PLAN - GROUND
2000

SCALE 1 : 250

NOTES

1. Confirm all dimensions and levels on site before commencing work.
2. Figured dimensions shall take precedence over scaled dimensions.
3. Dimensions relate to structure only and do not include linings or claddings unless noted otherwise.
4. All work, materials and construction to comply with the Queensland Building Act 1975 and the National Construction Code of Australia.

AMENDMENTS

rev	date	detail	checked
E	23.10.24	DA ISSUE - REVISED	FI
F	08.11.24	DA ISSUE - REVISED	FI
G	22.11.24	DA ISSUE	FI
H	12.02.25	DA ISSUE - REVISED	FI
I	28.02.25	DA ISSUE - REVISED	FI
J	07.03.25	DA ISSUE - REVISED	FI
K	10.03.25	DA ISSUE - REVISED	FI
L	24.03.25	DA ISSUE - FINAL - AMENDED	FI

KEYNOTE LEGEND

KEY	DESCRIPTION
BBQ	GX OUTDOOR GRILLEX FRONTIER BBQ
CL	1800H WALL OR FENCE MOUNTED CLOTHESLINE
FG	FIXED GLASS
G01	GATE - 1200HH SINGLE SWING - CORRUGATED METAL
G02	GATE - 1800H DOUBLE SWING - TO MATCH TIMBER PRIVACY FENCE
G03	GATE - 1800HH SINGLE SWING - TO MATCH SC06
G04	GATE - 1800H SINGLE SWING -TO MATCH REFUSE SCREEN
GS	GARDEN SHED - PROPRIETARY 1500W X 780D
IST	INTEGRATED SEATING - REFER LANDSCAPE ARCH.
LTR	MAILSAFE APR2 MAILBOX 30 BAYS
RES	RESIDENT CARPARK - 2400 x 5400
STR	STAIRS
SWD	STORMWATER DRAIN - TO CIVIL ENG. DETAILS
TGI	TACTILE GROUND SURFACE INDICATORS
VIS	VISITOR CARPARK - 2600 X 5400

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client	BLUE CHP LIMITED
project	AURA SOCIAL HOUSING BLUECHP
locale	75 ADRIAN CIRCUIT, NIRIMBA QLD, 4551
title	FLOOR PLAN - GROUND

scale	1 : 250	drawn	LS
date	11.10.24	checked	FI
job no	2307-1425	dwg no / cadfile	DA_1000
		rev	L

1 FLOOR PLAN - LEVEL 01

SCALE 1 : 250

NOTES

1. Confirm all dimensions and levels on site before commencing work.
2. Figured dimensions shall take precedence over scaled dimensions.
3. Dimensions relate to structure only and do not include linings or claddings unless noted otherwise.
4. All work, materials and construction to comply with the Queensland Building Act 1975 and the National Construction Code of Australia.

AMENDMENTS

rev	date	detail	checked
B	01.10.24	DA ISSUE - REVISED	FI
C	15.10.24	DA ISSUE - REVISED	FI
D	19.11.24	DA ISSUE - REVISED	FI
E	22.11.24	DA ISSUE	FI
F	12.02.25	DA ISSUE - REVISED	FI
G	28.02.25	DA ISSUE - REVISED	FI
H	07.03.25	DA ISSUE - REVISED	FI
I	24.03.25	DA ISSUE - FINAL - AMENDED	FI

KEYNOTE LEGEND

KEY	DESCRIPTION
CL	1800H WALL OR FENCE MOUNTED CLOTHESLINE
IST	INTEGRATED SEATING - REFER LANDSCAPE ARCH.
MRS01	METAL ROOF SHEETING TYPE 01 - SOUTHERLY
STR	STAIRS
TGI	TACTILE GROUND SURFACE INDICATORS

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title	FLOOR PLAN - LEVEL 01

scale	1 : 250	drawn	LS
date	11.10.24	checked	FI

job no	dwg no / cadfile	rev
2307-1425	DA_1100	I

Appendix C Systems and Specifications

C.1 Specified Refuse Management Equipment

The table below provides contextual examples of the specific equipment types specified in this OWMP and is not intended to provide an exhaustive list of all potential options of the required equipment.

Bin / Equipment Types	Waste Streams	Examples	Information
Residential unit bins	General waste and recycling	 	Various options and sizes. Built and standalone bin available. Examples: https://www.bunnings.com.au
1100L bins	General waste, recycling, paper / cardboard	 	Dimensions approx. 1070 x 1240 x 1330mm (L x W x H) (dimensions depend on contractor) Examples: http://www.justwheeliebins.com.au, https://www.australianwaste management.com.au
Refuse / Cleaners Trolleys (Optional)	All Streams	 	Assisted manual transfer of refuse Examples: https://rubbermaidcommercial .com.au/products/waste-management/mega-brute https://www.materialshandling .com.au/products/deluxe-compact-cleaning-carts
Counter-top E-Waste Recycling (Optional)	Electronic Waste	 	Prepaid battery collection Example: https://envirostream.com.au/product/prepaid-countertop-battery-recycling-box/ https://www.ecoactiv.com.au/product/4l-battery-recycling-prepaid-service/ Toner cartridge collection https://zerowasteboxes.terracycle.com.au-/products/ink-and-toner-catridges-zero-waste-boxes

Appendix D Refuse Signage

D.1 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

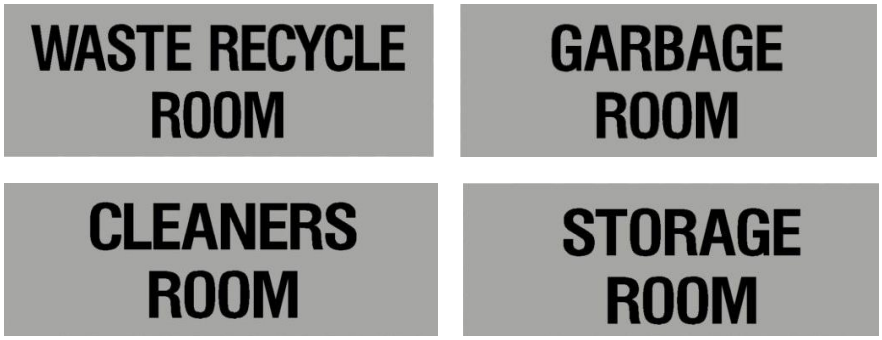
Colour coding as per AS 4123.7-2006

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*

D.2 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 E Terms and 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 1.00m³ to 4.50m³ 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 Tolley		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.