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APPLICATION REF

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Operational Waste Management Plan

Project:

566-570 Sherwood Road, Sherwood



Contact Information

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Definitions

In this OWMP, a term has the following meaning unless otherwise specified and is shown below.

Term	Description
Baler	A baler is a device that compresses waste into a mould to form bales which may be self-supporting or retained in shape by wire ties and strapping. It is commonly used to bale cardboard and soft plastics (plastic film).
Bin carting / transfer route	The proposed route to move bins between the refuse room (storage point) and the servicing point.
Bin (bulk / wheelie)	A container (steel or plastic) use for disposal and storage of refuse items. Bins come in various types and sizes from MGB's to up 360L and bulk from 660L to 4500L.
Bin Tug	An electric bin tug is a battery-powered and pedestrian-operated machine used to move heavy loads on wheels. If the load itself does not have wheels, it would be placed on a wheeled platform often referred to as a trolley, bogie or skate.
Collection / Servicing point	The designated area allocated to the temporary storage of waste bins for the period of servicing only. The point may be within or external to a development.
Compactor / Compaction unit	A device that provides mechanical compaction for refuse (typically general waste only). It allows to reduce bin numbers and collection frequency.
Composter	A container or machine used for composting specific organic material
General waste	Waste, other than domestic clean-up waste, green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced as a result of the ordinary use or occupation of domestic or commercial premises.
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 (m ²)
Hazardous waste	Solid waste that is or contains toxic material, for example light bulbs, fluorescence lights, batteries.
Mobile Garbage Bin (MGB)	A plastic bin used for the storage and collection of refuse that is up to 360L in capacity. MGB's are typically used for kerbside collection for residential dwellings and on-site collection for commercial development.
Organic Waste	Waste that comes from plants or animals that is biodegradable for example green waste and food waste.
Recycling	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 Chute	Refuse disposal in multi-storey buildings through refuse chutes, which typically includes access at all floors and discharging in bulk bins in ground floor or basement refuse room. Examples include single chute for waste only, or single chute with diverter system or dual chute for disposal of waste and recycling.
Refuse Room / Storage point	The area allocated to the permanent storage of waste bins. This is the normal location of the waste bins and excludes the period when the bin is serviced. A storage point may be a common storage point or an individual bin storage point.
Refuse Collection Vehicle (RCV)	A vehicle specifically designed for collecting and emptying refuse bins and refuse compactors.
Rear-End-Loading RCV	A truck specially designed to collect refuse (typically 1100L bins), from a rear loading mechanism and haul the collected waste to a solid waste treatment facility.
Transfer	Manual transfer means physical transfer of refuse material and associated bulk bins or trolleys without assistance.

1 Introduction

1.1 Overview

Modus has been engaged by Finegrain to prepare an Operational Waste Management Plan (OWMP) in support of the proposed Residential development, located at 566-570 Sherwood Road, Sherwood.

This OWMP is to be used as a guide during the operational phase of the development only and additional requirements for demolition and/or construction phases will need a separate WMP. The purpose of the OWMP is to satisfy Brisbane City Council's (BCC) requirements and detail the following information:

- ▶ Refuse (type and quantity) likely to be generated during the occupancy of the proposed development.
- ▶ Refuse collection arrangements, including disposal, storage and transfer, during the occupancy of the proposed development.
- ▶ Operational requirements, including equipment and systems, and design requirements for the proposed development.

1.2 References

For the purpose of this assessment, the following references have been utilised:

- ▶ Development Plans, prepared by BDE
- ▶ BCC Planning Scheme:
 - BCC Refuse Planning Scheme Policy (Refuse PSP)
 - BCC Transport, Access Parking and Servicing Planning Scheme Policy (TAPS PSP)
- ▶ Traffic Engineering Report, prepared by Modus

1.3 Limitations

Modus has completed this OWMP in accordance with the usual care and thoroughness of the consulting profession. The assessment is based on accepted waste management practises and standards applicable at the time of undertaking the assessment. Modus disclaims responsibility for any changes to project planning or equipment requirements that may occur after completion of the assessment.

2 Existing Conditions

2.1 Site Location

The development site is located at 566-570 Sherwood Road, Sherwood and is bounded by Sherwood Road to the north, and Residential uses in all other directions.

Furthermore, the development site is zoned Medium Density Residential within the BCC Local Government Area.

The site location is shown in Figure 2-1.

Figure 2-1 Site Location



Source: Nearmap

2.2 Existing Development and Refuse Arrangements

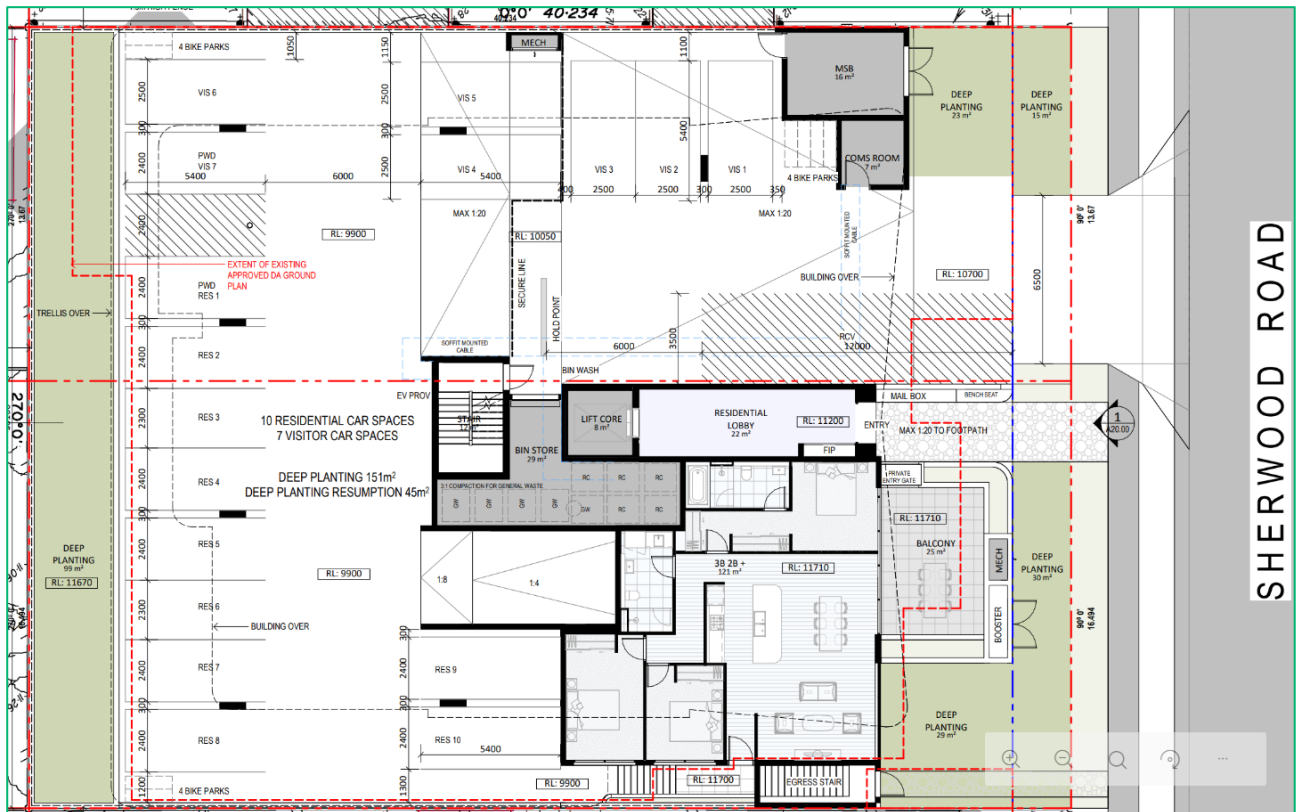
The site is currently occupied by a multiple dwelling development and a residential dwelling, with wheelie bins stored on-site and collected on-street.

3 Proposed Development

The proposed multiple dwelling development consists of a six (6) story tower with 26 residential units including 15x 2-bedroom dwellings and 11x 3-bedroom dwellings.

The proposed site plan is illustrated on Figure 3-1. A copy of the development plans can be found in **Appendix A**.

Figure 3-1 Proposed Development



Source: BDE, Drawing A10.00, rev 9 (date: 01/07/2026) - Ground Floor Plan

4 Refuse Generation

The anticipated refuse to be generated by the proposed development may consist of the streams outlined in **Appendix B**.

4.1 Calculations

To assess the waste generation for the proposed site, Modus has applied the current BCC generation rates, as outlined below in Table 4-1.

Table 4-1 Refuse Generation

Use	Generation Rate (L/unit/week)		Units	Generation (L/Week)	
	General Waste	Commingled Recycling		General Waste	Commingled Recycling
Residential	240	240	26	6,240	6,240

The refuse volumes may vary according to the operation of the development and each dwelling. As such, bin numbers and collection frequencies may need to be altered to suit the building operation once operational.

4.2 Bin Numbers

The required equipment for the development is based on the volumes calculated in Table 4-1. Additional waste management / minimisation equipment may vary depending on the operation of the development and each dwelling.

Table 4-2 shows the bin requirements (number & size) and area required to accommodate the bins.

Table 4-2 Bin Requirements

Description	Units	General Waste	Commingled Recycling
Total	26	6,240	6,240
Compaction (3:1)		2,080	-
Daily Volumes (L per day)		298	892
Collection Frequency (per week)		1	1
Collection Volumes (L per week)		2,080	6,240
Bin Size (L)		1,100	1,100
No. Bins ⁺¹		2 ⁺¹	6 ⁺¹
Bin Area		4.2m ²	9.8m ²
Refuse Storage Room Area		29m ²	

4.3 Equipment

The refuse bins to be utilised for the proposed development is outlined below in Table 4-3.

Table 4-3 Refuse Bins

Type	Dimensions	Comments
80L-120L	559 x 279 x 635mm (L x W x H)	For general waste and recycling Residents to supply and position in various locations. Several options and sizes available from numerous suppliers, depending on preference and space available.
1100L	1080 x 1280 x 1340mm (L x W x H)	For general waste and recycling Supplied by Council prior to operation.

Depending on the operation of the development and each dwelling, additional refuse minimisation equipment and procedures can be implemented. Refuse minimisation and recommendations are detailed in Section 6.

4.4 Additional Equipment

The proposed arrangements for additional refuse equipment to be utilised is outlined below.

- ▶ Due to the size of the development, refuse chutes are required. The development proposes a diverter refuse chute (for waste and recycling), to terminate into the appropriate bins on the ground floor. A hopper will be located on each residential level for disposal.
- ▶ 3:1 waste compaction via a compaction unit can be further implemented to minimise the waste generation.
- ▶ A horizontal discharge attachment may be fitted to the bottom of the chute to provide a manual cut off to moderate the flow under the chutes when bins are required to be serviced.
- ▶ Further detail on the proposed arrangements will be reviewed in the detail design stage with the nominated chute manufacturer.

5 Refuse Arrangements

5.1 Refuse Disposal

The proposed disposal arrangements are outlined in Table 5-1.

Table 5-1 Refuse Disposal

Stream	Process
General Provisions (Waste and Recycling)	▶ Each dwelling will at least one day worth of storage capacity for their refuse. ▶ Small bins / receptacles will be provided around various locations within each dwelling, typically under kitchen sinks, in pantries or bathrooms. ▶ As required, residents will dispose of their refuse to the appropriate receptacles / bins within their dwelling during the day. ▶ Residents will collect the refuse from their dwelling after each day of operation, or as required. The refuse material will be disposed directly to the diverter chute on each level.
General Waste	▶ Bins should always be lined with bags and tied before removal. ▶ Waste should not exceed 3kg in weight or the dimensions of the receptacles or the diverter chute. ▶ Waste bins should be accompanied by a commingle recycling bin.
Commingled Recycling	▶ Items for recycling must not be bagged and disposed in loose form. ▶ Recycling should not exceed 3kg in weight or the dimensions of the receptacles or diverter chute. ▶ Larger recycling items that cannot be disposed via the diverter chute may be arranged with building management or be provided with a small bin / crate in a communal area / ground floor to be decanted into the appropriate bin for disposal to the refuse room. ▶ Bins should be accompanied by general waste bin.

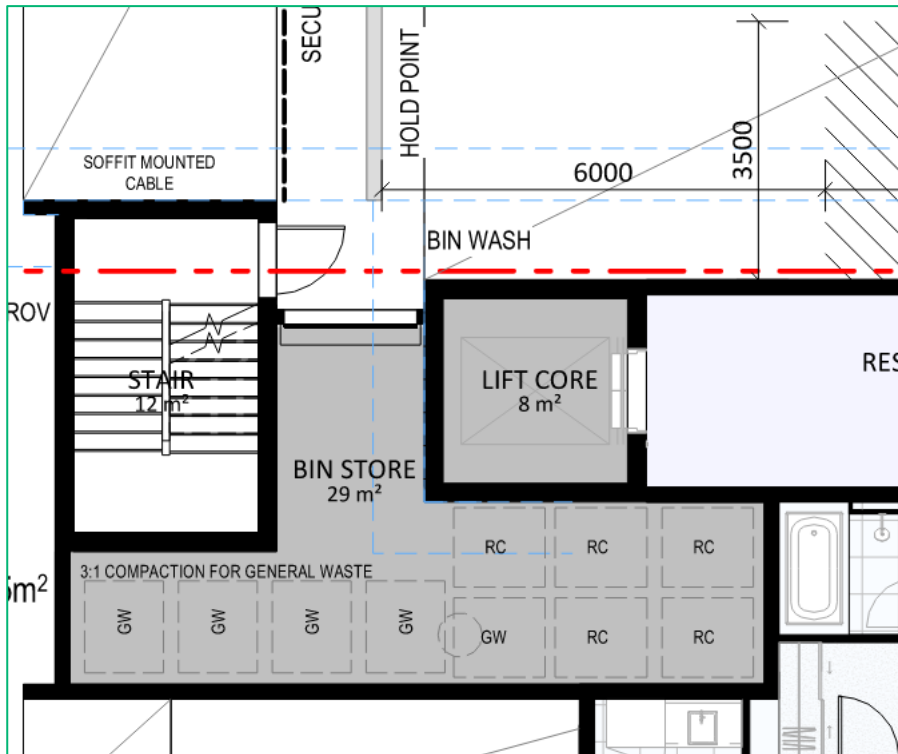
5.2 Refuse Storage

The proposed refuse room arrangements are as follows:

- ▶ A refuse room is provided on the ground level to accommodate all required bins (a minimum of 8 x 1100L bulk bins plus an additional 2 x 1100L bins to be stored under the chutes at all times) and associated chute equipment for storage and collection.
- ▶ Bin wash facilities will be provided within the refuse room.
- ▶ The refuse room is enclosed to improve amenity impacts (odour, amenity and noise).
- ▶ It is recommended the chute discharge area is partitioned for safety purposes.

The configuration and size of the refuse room is provided to ensure the bins are accessible to all users. The refuse room provides compliant clearances between all bins and walls, and is adequately sized to store all bins for collection and shown in Figure 5-1. The recommended refuse room design requirements are detailed in **Appendix C**.

Figure 5-1 Refuse Room



5.3 Refuse Transfer

The proposed transfer arrangements are as follows:

- ▶ Once a day or as required, residents will collect refuse from their dwelling and dispose of all refuse material to the diverter chute.
- ▶ Designated personnel (building management) will rotate full bins under the chutes and replace with empty bins.
- ▶ BCC contractors will be responsible for collecting bins directly from the refuse room to the loading area and return them once serviced.
- ▶ Bins will be transferred approximately 6m from the refuse room along a flat grade.

The transfer path requirements are detailed in **Appendix D**.

5.4 Servicing Arrangements

The proposed servicing provisions are as follows:

- ▶ Servicing will be conducted on-site by a BCC contractor via a rear-loading RCV.
- ▶ In accordance with Section 3.3 of the Refuse PSP, the RCV will perform a reverse manoeuvre into the site from Sherwood Road and exit in a forward gear.
- ▶ The RCV will stand on-site in the loading area which has minimum dimensions of 6.5m (W) x 12m (L), which includes sufficient space behind the RCV for bin servicing.
- ▶ Servicing will have minimum 3.6m height clearance, in accordance with Table 3 of the Refuse PSP and be conducted on a flat grade, in accordance with Table 12 of the TAPS PSP.
- ▶ The loading area is within 6m from the refuse room, with contractors to collect bins directly from the refuse room and return them once serviced.
- ▶ Vehicular access and manoeuvring is demonstrated in the traffic engineering report, prepared by Modus.
- ▶ General waste and commingled recycling will be serviced with a maximum collection frequency of once per week, in accordance with BCC's current requirements. All collections will be coordinated and managed onsite by the building manager.

The recommended refuse room design requirements are detailed in **Appendix D**.

5.5 Operational Management

The operational management and procedures can vary based on the operation of the development and each dwelling.

Appendix E details the minimum recommended arrangements for roles and responsibilities, maintenance and cleaning, training and education, safety, signage and monitoring and review. A blank table is also provided, to be completed by the appropriate personnel as required.

6 Refuse Minimisation

Refuse minimisation is an important part of any site operation and ensuring that diversion from landfill is minimised, to achieve the desired target rates as outlined in the QLD sustainability requirements.

To determine the feasibility of collection volumes and assist with achieving desired landfill diversion targets, it is recommended that a baseline audit is undertaken at various stages of building occupancy (i.e. at a minimum of 50% and 80% dwelling occupancy or 0-1 month, 1-3 months, 3-6 months, 6-12 months and yearly thereafter) by an external contractor.

A management plan can then be developed / applied for constant improvement of the site's operational performance and assist with implementation of waste minimisation strategies.

6.1 Equipment

Refuse minimisation is an important part of any site operation. Minimisation systems are summarised in Table 6-1 and are presented as options only. To assess the feasibility, further investigation is required by the developer at the concept stage and/or building management at the operational stage. Additional refuse management equipment is detailed in Table 6-2. The equipment suppliers are further outlined in **Appendix F** along with indicative compactor and baler specifications.

Table 6-1 Refuse Minimisation Equipment

Type	Streams	Comments
Composter / digester	Food Waste	Compost bins / digestors can process compostable material and garden organics on-site. This reduces the volume of waste to landfill and converts organic materials into soil or mulch through natural decomposition. A variety of compost bin arrangements and systems are commercially available for use.
Waste Conversion	General waste	Converting waste by reducing its volume and weight means less material to be disposed of, which results in fewer RCV trips. This allows cost savings and reduces environmental impacts. An example of waste conversion is an OMPECO system, which converts waste into a sterilised, dehydrated material. The final product reduces up to 80% less volume and 50% less weight than the original waste material and can be used in waste to energy systems as it is reasonably dry with a high calorific value. The process involves crushing / grinding of the material and is heated to approximately 100°C, evaporating moisture from the material.
Compaction	General waste, cardboard, plastics	Various compaction equipment exists for reducing the volume of refuse and ultimately less bins and/or fewer collections / service vehicle trips are required, to reduce costs and environmental impact. Examples of typical waste compaction equipment include bin press equipment and public place litter bins with a built-in compaction mechanism.
Baler	Cardboard waste	Balers should be a consideration for use in reducing refuse volumes and creating safe environments by removing cardboard and plastic film which tends to overflow bins and clog up refuse room floors and doorways.
Container deposit schemes	Eligible plastic / glass / aluminium bottles	Container deposit / refund schemes are currently in place in QLD. This includes bottle return facilities and (automated) reverse vending machines. Tenants, staff and cleaners should be encouraged to separate containers that qualify for the schemes from the waste or recycling streams, and return them to a designated return points. Dedicated storage space or bins may be considered on-site.

Table 6-2 Refuse Management Equipment

Type	Streams	Comments
Diverter Chute	General waste, commingled recycling	A hopper will be located on each residential level for disposal of all waste. The diverter chute will terminate into the appropriate bins on the ground floor.
Refuse Trolley	General waste, recycling, food waste, paper / cardboard	Safety and mobility disposal can be assisted by trolleys for everyday use. Multi-purpose bin trolleys are used to transport bulky and awkward loads and are used widely in hospitals, laundries, manufacturing and warehouses.

6.2 Signage

Waste signage guidelines are provided by local and state government. Various signage for the refuse areas including safety and facility signage should be arranged through appropriate providers. Example signage for the site including refuse room and equipment, and safety signage is demonstrated in **Appendix G**.

7 Summary

Modus has been commissioned by Finegrain to provide waste management advice in relation to a proposed residential development located at 566-570 Sherwood Road, Sherwood. Modus has the following findings:

Refuse Equipment

- ▶ 2 x 1100L bulk bins for general waste, plus an additional bin under the chute
- ▶ 6 x 1100L bulk bins for commingle recycling, plus an additional bin under the chute
- ▶ 1 x diverter chute
- ▶ 3:1 compaction for general waste

Refuse Disposal

- ▶ Each dwelling will be provided with receptacles for storage of daily refuse volumes.
- ▶ Once a day or as required, residents will transfer all refuse material to the diverter chute.

Refuse Storage

- ▶ A refuse room is provided on the ground floor to accommodate all required bins (10 x 1100L bulk bins) and associated equipment for storage and collection.
- ▶ Bin wash facilities will be provided within the refuse room.

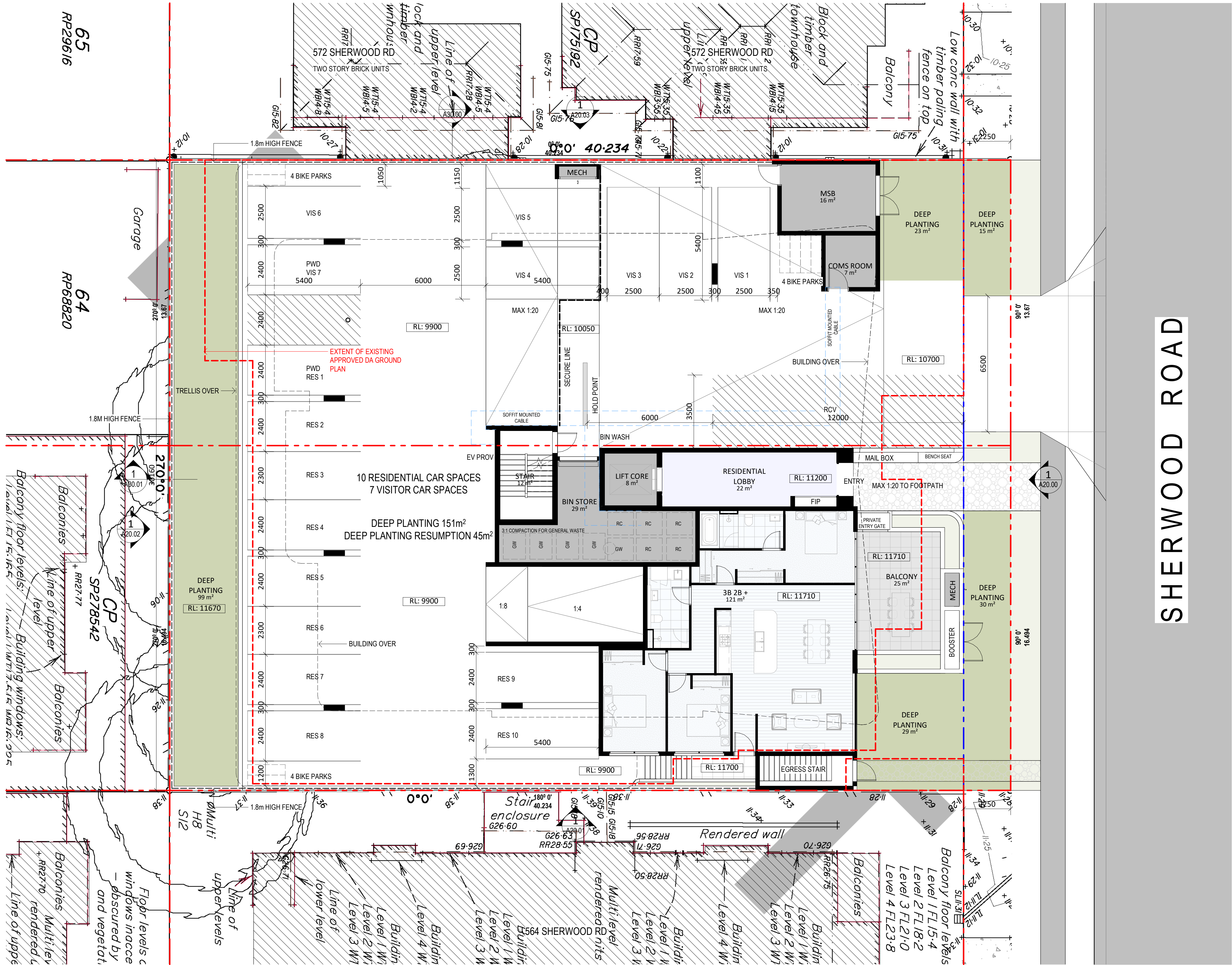
Refuse Transfer

- ▶ Building management will be responsible for rotating all full bins under the chutes.
- ▶ BCC contractors will be responsible for collecting bins directly from the refuse room to the loading area and return them once serviced.
- ▶ Bins will be transferred approximately 6m along a flat grade.

Refuse Servicing

- ▶ Servicing will be conducted by BCC via a rear-loading RCV. The RCV will enter the site in reverse gear via Sherwood Road and exit in forward gear.
- ▶ The RCV will stand on-site in the loading area which has minimum dimensions of 6.5m (W) x 12m (L), which includes sufficient space behind the RCV for bin servicing.
- ▶ Servicing will have minimum 3.6m height clearance, and be conducted on a flat grade.
- ▶ All refuse streams will be serviced with a maximum collection frequency of once per week.

APPENDIX A - Development Plans



PRELIMINARY

Rev	Description	Date	By	Client
01	ISSUE FOR REVIEW	01.07.2026	ML	FINEGRAIN GROUP
02	ISSUE FOR REVIEW	22.04.2026	ML	
03	ISSUE FOR INFORMATION	20.03.2026	ML	
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Project Name
566 - 570 SHERWOOD ROAD, SHERWOOD

Project Address
566 Sherwood Rd Sherwood QLD 4075

Sheet Name
GA - GROUND FLOOR PLAN

Project No.
251212

Drawing No.
A10.00

Revision
09

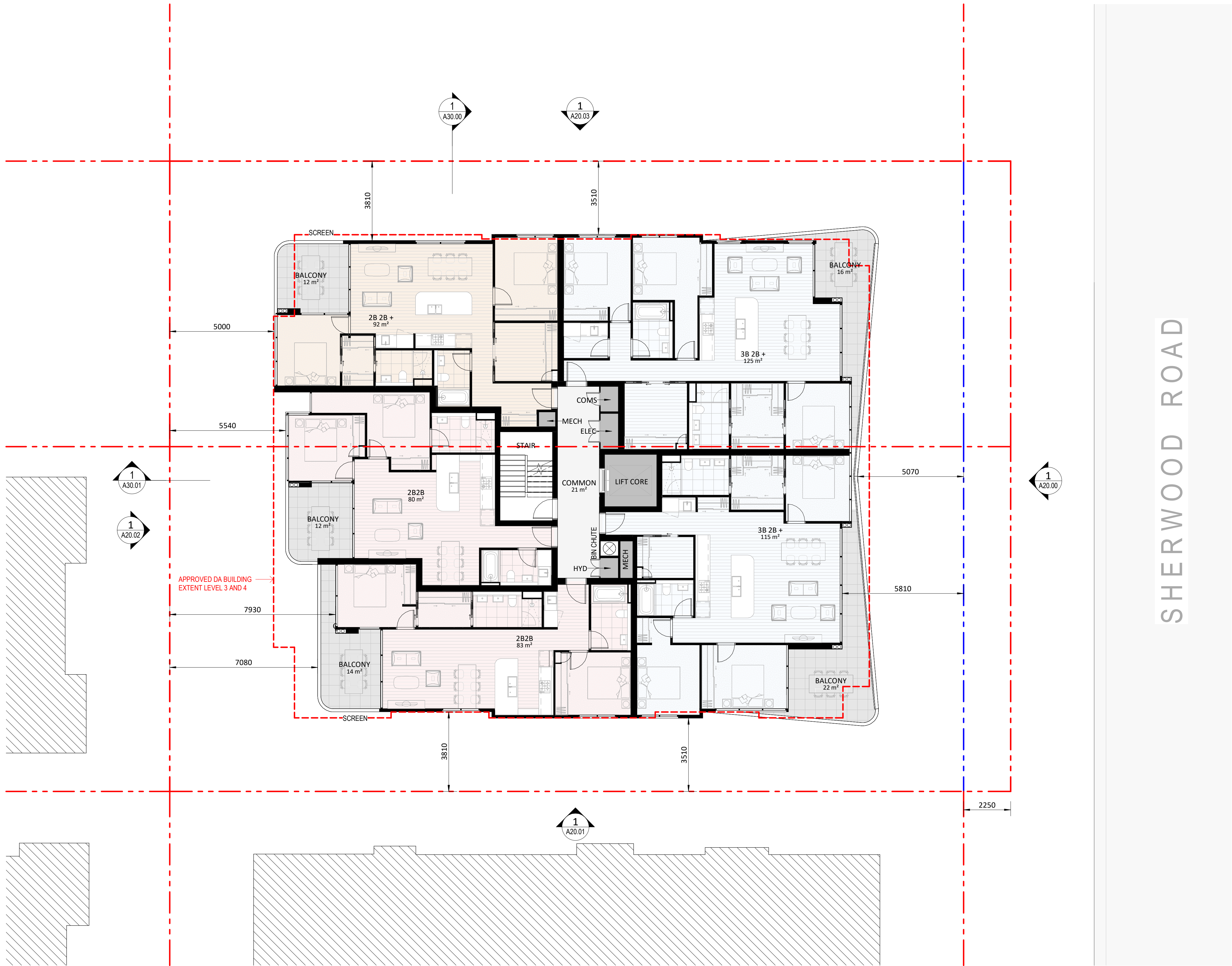
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SHERWOOD ROAD

PRELIMINARY

Rev	Description	Date	By	Client
01	ISSUE FOR INFORMATION	15.06.2026	ML	FINEGRAIN GROUP
02	ISSUE FOR INFORMATION	25.06.2026	ML	
03	TOWN PLANNING ISSUE	01.07.2026	ML	

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Project Name
566 - 570 SHERWOOD ROAD, SHERWOOD

Project Address
566 Sherwood Rd Sherwood QLD 4075

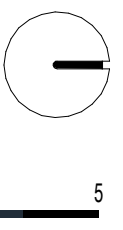
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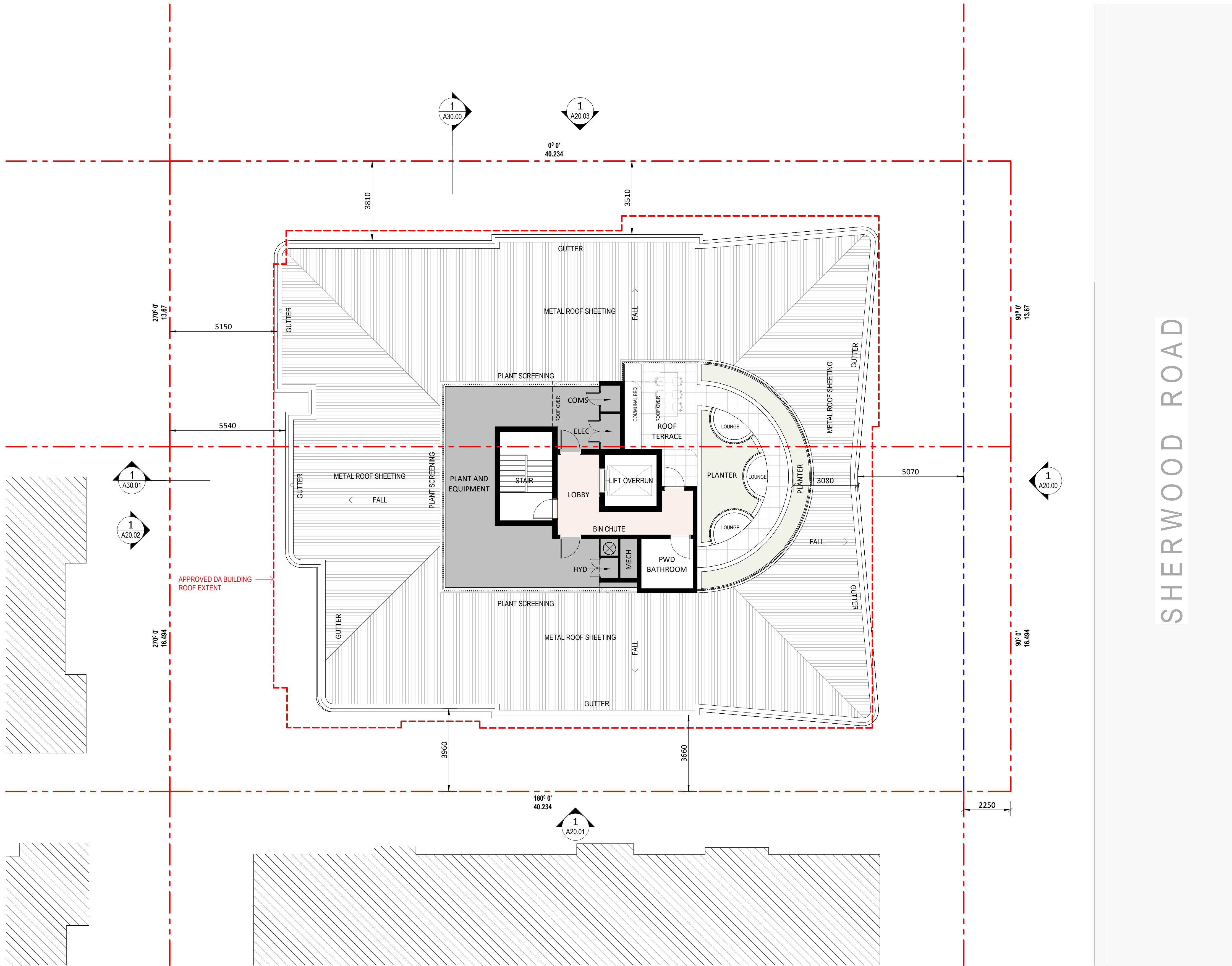
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01	ISSUE FOR REVIEW	02.04.2026	ML
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06	ISSUE FOR INFORMATION	16.06.2026	ML
07	ISSUE FOR INFORMATION	25.02.2026	ML
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Project Name
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Sheet Name
GA - ROOF PLAN

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APPENDIX B – Proposed Refuse Streams

Stream		Description
Frequently Generated		
General Waste	General Waste, Food Waste	General waste items are non-recyclable and can be putrescible (organic matter which can break down) or non-putrescible (non-organic matter which cannot break down).
Commingled Recycling	Semi-rigid plastics, glass, aluminium, steel / tin cans, glass, cardboard, paper	Commingled recycling includes everyday items that are collected and later processed for recycling into new products and resources. Recycling separation diverts waste to landfill.
Infrequently Generated		
Green Waste	Landscaping, trees, potted plants	This development does not generally produce green waste (other than landscaping). Maintenance contractors are typically engaged to remove material and should be directed to send to a resource recovery / composting facility to avoid landfill.
Hard Waste / Bulky Goods	Furniture, white goods, appliances	Storage and collection should be coordinated with building management or designated staff. When transferring heavy material, it is recommended to utilise multiple personnel and/or mechanical assistance for transfer. Please refer to local and QLD government websites for further information.
Hazardous Waste	Paints, fluorescent globes, mobiles, batteries and cartridges Electronic Waste (computers, printers, TV's)	Storage and collection should be coordinated with building management or designated staff, and handled with care. Space should be provided in a secure and separate area. Refer to local and state government websites for further information.

APPENDIX C – Refuse Room Design Requirements

Component	General Requirement
Refuse Room / Storage point	▶ The storage areas for bulk bins are: i. contained in a roofed and wholly screened enclosure or room of sufficient size for the bulk bin quantity required; ii. easily accessible for residents and for the required servicing of bins; iii. screened from neighbouring properties to mitigate odour, amenity and noise; iv. of a design to mitigate the harbourage of vermin or attraction of scavenging animals; v. provided with natural or temperature-controlled ventilation if in an enclosed room; vi. of a design which maintains a minimum internal vertical clearance of 2.1m; vii. 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; viii. are not to contain other amenities such as air-conditioning compressors, hot water systems or electrical hubs. ▶ Allow the bins to be serviced in-situ or easily transported to a separate servicing point (no steps or lips on bin-carting route). ▶ Waste-carting distance generally should not exceed 60m and in any case be reasonable to ensure ease of use. ▶ Generally positioned away from entrances to shops or residential premises and located at least 5m from any door, window or fresh air intake within the development (habitable rooms) or any adjoining site, particularly food preparation areas (including food storage). ▶ Safe access to the disposal area. ▶ Of sufficient size to accommodate the required number of bins. Allowance is to be made for a minimum of 0.1m clearance surrounding each container, or for the storage of multiple bins – one metre clearance around the combined bin area (whichever is the lesser). ▶ Provide adequate storage and unobstructed access for all users to safely and easily access via the provision of suitably located bulk bins. ▶ The floors, walls and ceilings of waste and recycling storage areas and chute room(s) are to be finished with a rigid, smooth-faced impermeable material capable of being easily cleaned. ▶ Is enclosed on all sides except for the gated entrance to ensure bins are not visible from a public place, neighbouring properties, passing vehicles or pedestrian traffic external to the site. A close-fitting and self-closing door or gate operable from within the room is to be fitted to all waste and recycling storage areas. ▶ Doors/gates to the waste and recycling storage rooms are to provide a minimum clearance width of 1.3m. At least one door or gate to the waste and recycling storage area is to have sufficient dimensions to allow the entry and exit of waste containers of a capacity nominated for the development. ▶ 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 ▶ The height of the bin storage area to be a minimum of 2.1m in accordance with the National Construction Code (NCC) and Building Code of Australia (BCA), to allow for waste bins to be opened and closed. ▶ Lightweight roller shutter-type doors or grilles should be considered for access to refuse areas, as these do not impact on the available storage space. If these types of doors or grilles are used,

	the requirement for a close-fitting and self-closing door remains, so that waste collectors can access the waste and recycling storage area other than through the roller door or grille. Where required, the refuse room is to be fire rated in accordance with the NCC and BCA. ▶ The waste and recycling storage area is to be provided with an adequate supply of water for cleaning purposes with a hose cock. ▶ The storage area is to be adequately ventilated by a mechanical exhaust ventilation system in accordance with relevant Australian standards. ▶ Where required, waste and recycling areas are to be provided with artificial light controlled by switches located both outside and inside the storage area.
Refuse Chute	▶ be compliant with the National Construction Code (NCC); ▶ have adequate strength for its purpose, including additional reinforcing where necessary at joins, bends and hopper intersections; ▶ be insect and vermin proof; ▶ be constructed and installed to prevent the following during use and operation of the system: i. transmission of vibration to the structure of the premises; ii. excessive odour – there must not be a noticeable odour beyond the waste disposal and storage points; iii. excessive noise to the occupants of the building; ▶ comply with the waste chute manufacturer's technical specifications and/or operational limitations, including installation design features and ancillary equipment required to prevent blockages and noise disturbances; ▶ be fitted with a shutter at the base of the chute for closing off the chute manually during bin exchange and automatically in case of fire; ▶ be fitted with fire sprinklers; and, ▶ have chute pipes with access provided at appropriate levels and a nylon brush or similar appliance on a pulley system, for clearing obstructions and cleansing.
Bin wash-down facility	▶ Constructed hardstand area with a solid concrete base or acceptable equivalent. ▶ Roofed and designed to prevent entry to rainwater. ▶ The floors are graded to fall to a drainage point. The floor is to be provided with a ramp to the doorway where necessary. ▶ Drainage point connected to sewer in accordance with trade waste requirements. ▶ Provided with a hosecock for cleaning. ▶ Not be located within a building structure, unless it is: i. in a purpose-built storage area which is air locked, fly and vermin proofed, and used solely for the storage of waste; ii. in a well-ventilated portion of the basement and not within 30m of an opening to a food premises or food handling area; or iii. demonstrated that no / minimal putrescible / organic waste is generated by the proposed development type.

APPENDIX D - Servicing Requirements

Component	General Requirement
Bin servicing point	▶ Is of sufficient size to accommodate the bins. ▶ Sufficient access and clearance for the collection vehicles to service the bins, including adequate unobstructed overhead space for the swinging arm action of the collection vehicle. ▶ Bins serviced safely while minimising the impediment of traffic flow during servicing. ▶ Separated from car parking bays, loading bays, footpaths and pedestrian access, and any other similar areas. ▶ Clear of speed control devices or similar provisions (including entry and exit to the site) which inhibit direct access to the bins for servicing. ▶ Must be positioned to allow collection vehicles to enter and exit the site in a forward gear (internal servicing roadway). ▶ Positioned on a level pad devoid of stairs, lips or ramps and allows bins to be manoeuvred easily. ▶ Over 5m from any door, window or fresh air intake within the development (habitable rooms) or any adjoining site (excluding the storage of wheelie bins at each individual dwelling), particularly food preparation areas (including food storage). ▶ Bins to be removed from and returned to the storage point. ▶ Constructed hardstand with a solid concrete base or acceptable equivalent. ▶ Screened to minimise the view of bins from neighbouring properties, or passing vehicles and pedestrian traffic external to the site. ▶ Positioned away from entrances to shops or residential premises.
Bin carting	▶ The route must be via hard stand pathways / internal roads, and can be easily moved to the temporary storage area, and is not stored on a section of the driveway that falls away (e.g. to the basement). The route must occur within the property boundary. ▶ The route must allow bins to be easily manoeuvred and be devoid of steps or steep rises. ▶ The route must not impede traffic flow and extend through habitable parts of a building, or a food premises, and only occur through common property or publicly accessible locations. ▶ Bin carting distances generally should not exceed 100 metres and in any case be reasonable to ensure ease of use.

APPENDIX E – Operational Management

Process	Procedure
Roles and Responsibilities	Responsibilities have to be assigned for all on-going refuse management operations. This is generally completed by a building manager, staff and / or cleaners. The on-going responsibilities help managing responsibilities and monitor the refuse operations in order to maintain efficient services and a safe environment. These include and are not limited to the following: ▶ Scheduling / organising refuse collections ▶ Transferring bins to and from the refuse area ▶ Washing bins ▶ Ensuring users / occupants are informed of all waste, recycling, organics and bulky waste arrangements ▶ Coordination of contractors, including specialised equipment and cleaning ▶ Monitoring and reviewing all waste management procedures
Maintenance and Cleaning	Regular on-going maintenance and cleaning is required to maintain a clean and hygienic environment for all users, including management / staff, visitors and contractors. This includes, and is not limited to the following: ▶ Refuse storage areas ▶ Refuse transfer areas ▶ Refuse equipment
Training and Education	Training and education is required to ensure operational efficiency and sustainability of the equipment and facilities within the development. Training and on-going education should be conditioned within all body corporate and leasing contracts. It is recommended that building management circulate ongoing recycling rate results to highlight current rate and performance against benchmarked recycling rate target.
Safety	Safety is an important part of all refuse management operations and is the responsibility of all users. A full risk assessment should be conducted by building management and all contractors. Contractors must provide required documentation to appropriate personnel prior to development occupancy and delivery of equipment.
Signage	All receptacles, bins and other refuse management equipment must have adequate signage. Standard signage will be provided in and around waste collection / storage areas and will be colour coded in accordance with AS 4123.7-2006 mobile waste containers and all local government regulations. Signage should be included, and not limited to the following: ▶ Refuse storage and collections areas ▶ Refuse transfer areas ▶ Refuse disposal points ▶ Refuse equipment All signage should be clear, legible and easy to read.
Monitoring and Review	Regular monitoring and reviews will ensure operational efficiency and sustainability of the refuse management arrangements for the development. This includes, and is not limited to the following: ▶ Refuse equipment ▶ Refuse rooms ▶ Refuse volumes, including diversion rates and targets to meet the required sustainability targets ▶ Service frequency and site operations / methodologies It is recommended that waste auditing / reviews are conducted a minimum of at least once every 12 months. Audits may be undertaken by external contractor or internally by visual inspection during on-site waste management handling activities. Additionally, refuse weights and movements should be noted to assist with economic feasibility.

A blank operational checklist is provided below to be appropriately filled out as required by building management / staff. This table has been designed to maintain efficient services and a safe environment and help manage responsibilities / monitor the refuse operations.

[illegible]

APPENDIX F – Equipment / Systems Manufacturers and Suppliers

Manufacturer / Supplier	Equipment / Systems
Elephants Foot Recycling Solutions http://www.elephantsfoot.com.au	Compactors, Chutes, Bin Rotation, Bin Lifters
Waste Initiatives https://wasteinitiatives.com.au	Compactors and Balers, Shredders, Sorting Equipment
Wastech http://wastech.com.au	Compactors, Chutes, Bin Rotation, Bin Lifters
Pakmor http://pakmor.com.au	Compactors, Bin Lifters
Miltek http://www.miltek.com.au	Compactors
Closed Loop Organics https://closedloop.com.au/upcycling-products	Composting
Materials Handling https://www.materialshandling.com.au	Bin Lifters, Spill containment, Bins, Bin Cleaning
Spacepac Solutions http://www.spacepac.com.au	Bin tugs / trailers, trolleys / assisted transfer equipment
Draffin https://draffin.com.au	Bin lifters
Electrodrive / Lift Master http://www.electrodrive.com.au	Bin tugs / trailers, bin lifters
Absorbenviro http://www.absorbenviro.com.au	Spill containment equipment
Trade Environmental http://www.tradeenviro.com.au	Spill containment equipment
Spillstationaustralia www.spillstation.com.au	Spill containment equipment
Compost Revolution https://compostrevolution.com.au	Composting
Urban Composter https://www.urbancomposter.com.au	Composting
ORCA Digester https://www.feedtheorca.com	Composting
Rubbermaid https://rubbermaidcommercial.com.au/products/waste-management	trolleys / assisted transfer equipment, spill containment, bins
Sulo http://www.sulo.com.au	trolleys / assisted transfer equipment, bins, composting
Australian Waste Management https://www.australianwastemanagement.com.au/products	Bin lifters, bins
ReturnIT https://www.returnit.com.au/qld/	Various models exist including bottle return facilities and (automated) reverse vending machines

Contractors / Service Providers	Streams
JJ Richards	Commercial waste & recycling, Cooking oils, hazardous waste, liquid waste, industrial waste, construction and demolition waste
Cleanaway	Commercial waste & recycling, Cooking oils, hazardous waste, construction and demolition waste
Veolia	Commercial waste & recycling, Hazardous waste, liquid waste, industrial waste, construction and demolition waste, secure document destruction
Suez	Commercial waste & recycling, Liquid waste, electronic waste, construction and demolition waste
Toxfree	Hazardous waste, electronic waste, industrial waste
Ace Waste	Hazardous waste, industrial waste

APPENDIX G – Example Signage

Standard Signage



Refuse Room / Facility Signage



Safety Signage



Refuse Equipment



Refuse Chute Signage

