Waste Management Plan

Proposed Residential Development
51 Tourist Road, East Toowoomba

July 2026
Revision A

Prepared for

BASQ ONE Pty Ltd

RHODIUM ENVIRONMENTAL

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NOTE

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A RHODIUM ENVIRONMENTAL REPORT

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DISCLAIMER

This Waste Management Plan has been prepared for BASQ ONE Pty Ltd by Rhodium Environmental, for a proposed residential development located at 51 Tourist Road, East Toowoomba. Opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. The report also contains comments and information provided by others. Rhodium Environmental takes no responsibility for advice provided by any third party. This document has been prepared for the sole purpose of a Waste Management Plan and does not present final or detailed engineering designs for construction purposes.

CONTENTS

TABLES

FIGURES

1.0 DEFINITIONS

Apartment - A dwelling that has another dwelling immediately above or below it. It also includes dwellings contained in mixed use buildings located immediately above, below or abutting non-residential uses. This term does not include an attached dwelling.

Attached dwelling and medium density detached dwellings - A dwelling attached to or touching another dwelling. This is a more specific definition than 'dwelling'. This term does not include an Apartment. (Please note that a development application for 'Attached Dwellings and Medium Density Detached Dwellings' may include individual detached dwellings as a part of the same development complex).

Bin carting route - The proposed route to move bins between the storage point and the servicing point.

Bulk bins - Bins fitted with lids and side pockets to allow them to be serviced by a front-lift truck.

Clinical waste - Means waste that has the potential to cause disease, including, for example, the following:

a. animal waste
b. discarded sharps
c. human tissue waste
d. laboratory waste

Commercial Premises - Means any of the following types of premises:

a. a hotel, motel, caravan park, cafe, food store or canteen
b. an assembly building, institutional building, kindergarten, child minding centre, school or other building used for education
c. premises where a sport or game is ordinarily played in public
d. an exhibition ground, show ground or racecourse
e. an office, shop or other premises where business or work, other than a manufacturing process, is carried out.

Commercial waste - Means waste, other than green waste, recyclable waste, and interceptor waste or waste discharged to a sewer, produced as a result of the ordinary use or occupation of commercial developments.

Common servicing point - A common area where more than two dwellings/tenancies stand their wheelie bins for servicing.

Common storage point – A common area where more than two dwellings or tenancies store their wheelie bins.

Constructed hardstand area – A hardstand area, (typically concrete), constructed for bin storage.

Council – Refers to Toowoomba Regional Council.

Council's waste collection contractor – Organisation contracted by Toowoomba Regional Council to collect waste within the region.

Detached dwelling – A dwelling not attached to or touching another dwelling or another building. This is a more specific definition than 'dwelling'.

Dwelling – A building or part of a building used or capable of being used as a self-contained residence and which includes food preparation facilities, a bath or shower, a toilet and wash basin, and clothes washing facilities. This term includes outbuildings, structures and works normally associated with a dwelling.

Domestic waste – Waste, other than domestic clean-up waste, green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced from the ordinary use or occupation of domestic premises.

General waste – Waste, other than domestic clean-up waste, green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced from the ordinary use of domestic or commercial premises.

Green waste – The vegetative portion of the waste stream arising from various sources including waste from domestic and commercial premises and municipal operations.

Habitable room – A room in a dwelling or residential building, including a bedroom, living room, lounge room, family room, music room, television room, kitchen, dining room, sewing room, study, play room and sun room. This term does not include a bathroom, laundry, water closet, food storage pantry, closet, cellar or corridor.

Internal servicing roadway – A driveway, private roadway or other path intended for use by vehicles, in which the waste collection vehicle is required to use to service a bin.

Mixed-use – Any building or development complex used, or intended to be used, for residential purposes in combination with one or more of the following uses: retail, office, industrial, entertainment, recreation, medical or government purposes. This term does not include a building used for permanent residential purposes in combination with tourist accommodation. It also does not include a home office, home occupation or a caretaker's residence attached to another building.

Non-serviced area – Areas within the boundaries of the Toowoomba Regional Council area that are not serviced by Council's waste collection contractor.

Putrescible waste – The component of the waste stream liable to become putrid. For example, organic matter that has the potential to decompose with the formation of malodorous substances and usually refers to vegetative, food and animal products.

Recyclable waste – For a local government's area, means clean and inoffensive waste that is declared by the local government to be recyclable waste for the area. In the Toowoomba Regional Council area, recyclable waste includes household plastic bottles and containers, aluminium and steel cans and aerosols, glass bottles and jars, and clean cardboard, newspaper, loose paper, junk mail, magazines and cartons.

Regulated waste – Waste listed in Schedule 7 of the *Environmental Protection Regulation 2008*.

Roll-on roll-off bin (Ro-Ro bin) – Large steel open-top skip bins or enclosed bins collected by a hook-lift truck.

Solid waste – Any general or recyclable waste, whether commercial or domestic. Solid waste does not include waste discharged to sewer, water or the atmosphere.

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.

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 where the bin is serviced. A storage point may be a common storage point or an individual bin storage point.

Trackable waste – A substance that is regulated waste of a type mentioned in Schedule 2E of the *Environmental Protection Regulation 2008*.

Waste – Anything, other than a resource approved under the Waste Reduction and Recycling Act, that is left over, an unwanted by-product from an industrial, commercial, domestic or other activity, or surplus to the activity generating the waste.

Waste carting distance – The distance required for a person to transport their waste from the nearest point of exit of their dwelling or tenancy to a storage point, or in the case of a multi-level building, to the nearest waste disposal point.

Waste chute – A duct in which waste descends from one point to another.

Waste disposal point – The point where waste is disposed of into the chute, also known as a waste hopper. It consists of a fixed frame and hood unit covered with a hinged or pivoted door.

Waste generation rates – Waste generation rates vary over time. Site Waste Minimisation and Management Plans should include proposed volume reduction equipment where appropriate. Volume reduction equipment should only be utilised where recyclable material proposed for compaction is appropriately separated and does not contain contaminants.

Waste storage room – The room at the base of the chute used for the storage of waste bins.

Waste management hierarchy – The preferred order for waste and resource management being: avoid, reduce, re-use, recycle, recover, treat and dispose.

Wheelie bin – Two-wheeled mobile garbage bins (MGBs) made from high-density polyethylene (HDPE) and collected by a side-lift truck.

2.0 INTRODUCTION

2.1 DEVELOPMENT BACKGROUND

The applicant, BASQ ONE Pty Ltd proposes to construct a residential building at 51 Tourist Road, East Toowoomba. The building is proposed to be constructed across a 2,553m^2 parcel of land described as Lots 1, 2 & 3 on RP85455.

Rhodium Environmental has been commissioned to prepare this Waste Management Plan (WMP) as supporting documentation for a Development Application to Toowoomba Regional Council (TRC). This WMP ensures that the waste storage and collection activities for the operational phase of the proposed development are generally in accordance with *Technical Guideline for New Developments – General Waste and Recyclable Waste Storage and Collections* (Toowoomba Regional Council, September 2016).

2.2 SITE DETAILS

The development site is located at 51 Tourist Road, East Toowoomba (refer **Figure 1**). The site is bound by Tourist Road to the north and east, Burke Street to the west and James Street to the south of the site.

The proposal involves the construction of a 7 storey, residential apartment complex consisting of 4 x 2 bedroom apartments, 13 x 3 bedroom apartments and 11 x 4 bedroom apartments (i.e. 28 apartments total).

2.3 PURPOSE AND SCOPE

Suitable waste planning at the early stages of development design results in waste systems that are easy to use, improves amenity of the building, reduces health, work and safety risks, and encourages waste avoidance and resource recovery.

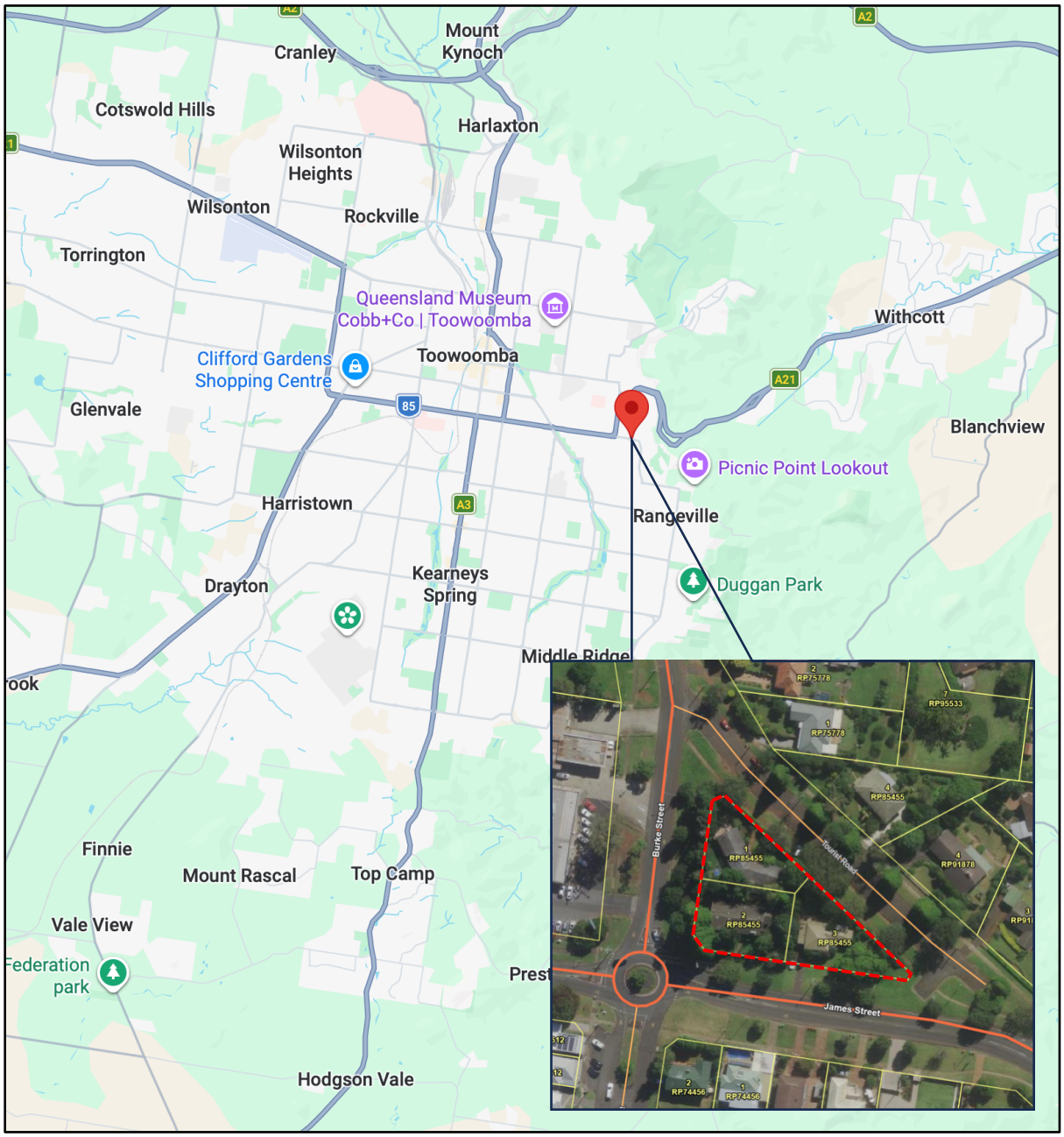
In accordance with TRC's *Technical Guideline for New Developments – General Waste and Recyclable Waste Storage and Collections*, this WMP establishes systems that provide the best opportunity for occupants of the development to recycle correctly and minimise waste sent to landfill. The WMP also details the provision of appropriate refuse collection facilities to satisfy the assessment benchmarks for the development.

This report represents a Waste Management Plan for the operational phase of the development which includes:

- Details on the anticipated type and quantity of waste (**Section 3.0**);
- Details of the waste storage point requirements and waste storage bins (**Section 4.0**); and
- Details of the waste collection point requirements and proposed waste collection arrangements (**Section 5.0**).

This report presents conceptual information on the above dot points, rather than involving detailed engineering designs. At the current phase of the proposal, the development of detailed engineering designs of the waste storage areas is not practical.

Figure 1: Site location map.



Proposed development site at 51 Tourist Road, East Toowoomba.

3.0 WASTE AND RECYCLING GENERATION

3.1 TYPE OF WASTE

The development is proposed to include residential apartments only and as such, the anticipated waste types include general waste and co-mingled recycling material only. Provisions will be made for each anticipated waste type.

3.2 WASTE VOLUMES

Calculations of the anticipated waste quantities were performed using typical waste generation rates as provided in Appendix A of *Technical Guideline for New Developments – General Waste and Recyclable Waste Storage and Collections* (Toowoomba Regional Council, September 2016).

Table 1 below displays the anticipated volume of general waste, and **Table 2** displays the anticipated volume of recycling material that is expected to be generated during the operational phase of the development.

Table 1: Anticipated general waste quantities from the development.

Apartment Type	No.	Waste Generation Rate (L/week/apartment)	Estimated Waste Generation (L/week)	Estimated Waste Generation (m^3/week)	Estimated Waste Generation (m^3/day)
2 bedroom	4	140	560	0.56	0.08
3 bedroom	13	240	3,120	3.12	0.45
4 bedroom	11	320	3,520	3.52	0.50
TOTAL	**28**	**-**	**7,200**	**7.20**	**1.03**

Table 2: Anticipated recycling quantities from the development.

Apartment Type	No.	Waste Generation Rate (L/week/apartment)	Estimated Waste Generation (L/week)	Estimated Waste Generation (m^3/week)	Estimated Waste Generation (m^3/day)
2 bedroom	4	60	240	0.24	0.03
3 bedroom	13	120	1,560	1.56	0.22
4 bedroom	11	160	1,760	1.76	0.25
TOTAL	**28**	**-**	**3,560**	**3.56**	**0.51**

The development is expected to generate approximately 7.20m^3 per week of general waste and 3.56m^3 per week of recycling material.

4.0 WASTE AND RECYCLING STORAGE

Section 4 outlines the general design criteria of the waste storage and servicing areas as required by *Technical Guideline for New Developments – General Waste and Recyclable Waste Storage and Collections* (Toowoomba Regional Council, September 2016) along with a description of the proposed bins to be used.

4.1 BIN STORAGE AREAS

The development is proposed to include two bulk bin storage areas at the basement level for the storage of all general waste and recycling material generated from the development (refer to **Figure 2**). A general waste bulk bin storage room will be provided at the bottom of a single waste chute for general waste only. The bulk recycling bins will be stored in an adjoining storage area, which is accessible to all residents via the lift.

Chutes are not suitable to transfer recycling waste in accordance with Section 12.4 of *Technical Guideline for New Developments – General Waste and Recyclable Waste Storage and Collections* (Toowoomba Regional Council, September 2016). As such, bulk recycling bins will be provided at basement level in an adjoining bin storage area that is accessible to all residents via the internal lift (refer to **Figure 2**).

The general waste storage room will be designed and constructed to meet the applicable design requirements for bulk bin storage points in accordance with Section 12.3 of *Technical Guideline for New Developments – General Waste and Recyclable Waste Storage and Collections* (Toowoomba Regional Council, September 2016). The bin storage room will be:

1. Designed to allow the bins to be easily transported to the servicing point with no steps or lips on the bin-carting route;
2. Not located within the proposed building (i.e. located in a separate storage enclosure at basement level);
3. Located at least 5 metres from any door, window or fresh air intake within the development or any adjoining site;
4. Waste-carting distance does not exceed 50m;
5. Provided with clear/safe access to the disposal area to all users of the storage point;
6. Screened to ensure bins are not visible from passing vehicle and pedestrian traffic external to the site, or inhabitants of neighbouring properties;
7. Ventilated in accordance with the Building Code of Australia and Australian Standard 1668.2;
8. Designed to allow for at least an additional 0.5 metres clearance surrounding each bin;
9. Constructed hardstand area with a solid concrete base or acceptable equivalent;
10. Signed, well lit and easily accessible from within the development;
11. ‘Fire rated’ in accordance with the Building Code of Australia;
12. Permit unobstructed access for removal of bins to the service point and for positioning of bins correctly in relation to the waste chute;
13. Not located adjacent to or within any habitable portion of a building or place used in connection with food preparation (including food storage);
14. Doors are wide enough to allow for the easy removal of the largest bin to be stored;
15. The walls, ceiling, floor and equipment of are designed and constructed of impervious material with a smooth finish to allow for easy cleaning;

16. Provided with a hose cock for cleaning bins and the room;
17. Insect and vermin proof;
18. Graded to fall to a drainage point that is connected to sewer in accordance with trade waste requirements;
19. Provided with adequate artificial lighting.

Note that it will be the responsibility of site management to wash bins and to maintain the cleanliness of the bins, bin storage areas.

4.2 WASTE CHUTE

General waste will be delivered to the bin storage room at basement level via a single waste chute. Importantly, for health and safety purposes, the general waste storage room will only be accessible to site management. The waste chute will be constructed to meet the requirements listed below. The waste chute will be:

1. Adequate in strength for its purpose, including additional reinforcing where necessary at joins, bends and hopper intersections.
2. Insect and vermin proof.
3. Constructed and installed to prevent the following during operation of the system:
   - transmission of vibration to the structure of the premises;
   - excessive odour – there must not be a noticeable odour beyond the waste disposal and storage points;
   - excessive noise to the occupants of the building.
4. Installed in a 'fire rated' duct and ventilated in compliance with building requirements of the National Construction Code – Building Code of Australia.
5. Ventilated in accordance with the building requirements of the Building Code of Australia.
6. At least 500mm in diameter and 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, to achieve compliance with the section.
7. Fitted with a shutter at the base of the chute for closing off the chutes manually during bin exchange and automatically in the case of fire.

4.3 WASTE DISPOSAL POINTS

A waste disposal point will be provided for residents on each level of the building for disposal of general waste. The disposal points will be designed and constructed to meet the following requirements. The waste disposal points will be:

1. Located on each floor in a position that is:
   - in a dedicated compartment (air locked);
   - easily accessible by the occupants of each apartment;
   - separated from any habitable portion of a building or place used in connection with food preparation or storage.
2. Located to ensure the handle of the hopper is at least 1,200 millimetres above finished floor level.

3. Designed to ensure that the hopper door closes automatically after use.
4. Designed to permit free flow of waste into the chutes.
5. Constructed so that the diameter or largest dimension of the service opening (the diagonal of a rectangular opening) does not exceed three quarters (3/4) of the diameter of the chute with which the hopper is connected.
6. The floor adjacent to the hopper will be constructed of a durable impervious material with a smooth finished surface.

4.4 PROPOSED WASTE BINS

To ensure that the bin storage areas are sufficiently sized, details of the type and quantity of waste and number of bins to be stored are provided in **Table 3** below.

Table 3: Details of waste and bins required for the development.

Waste Type	Waste Quantity (m^3/week)	Proposed Bins	Servicing frequency*	Comments
General	7.20	3 x 1.1m^3 bulk bin	Three times per week	Bins will be collected from the storage areas by site management and carted to the bin servicing point ahead of collection by the service provider. Following servicing, the bins will be returned to the storage areas by the site management.
Recycling	3.56	2 x 1.1m^3 bulk bin	Twice per week	

*Once the development is operational, the servicing frequency will be reviewed to ensure that it is sufficient but not excessive for the development.

4.5 BIN DIMENSIONS

Table 4 below provides dimensions of the bins to be used on-site.

Table 4: Dimensions of proposed waste storage containers.

Bin Type	Volume	Length (mm)	Width (mm)	Height (mm)	Collection Vehicle Type
Plastic bulk bin	1.1m^3	1,240	1,070	1,330	Front lift truck

5.0 WASTE SERVICING

5.1 BULK BIN SERVICING POINT

The bulk bins will be carted by site management to the servicing point, located off site in the collection vehicle turning bay on Tourist Road (refer to **Figure 2**). Council's contracted service provider will service the bins directly at the servicing point on Tourist Road. This arrangement allows for Council's service provider to empty the bins in-situ without the driver exiting the vehicle, allowing for a safe and efficient servicing procedure. It will then be the responsibility of site management staff to return the empty bins to the storage areas at basement level following servicing.

The development will require five bulk bins in total (three for general waste and two for recycling material) and as such, the bin servicing point will hold a maximum of three bulk bins as the general waste and recycling bins will be collected on alternate days by the service provider.

5.2 COLLECTION VEHICLES

Table 5 details the dimensions of the waste collection vehicles that will service the development. Front-lift service vehicles will empty the bulk bins on Tourist Road in a clear area with no overhead obstructions.

Table 5: Service vehicle dimensions.

Vehicle type	Travelling Height	Width	Length	Servicing Height	Total Tonnage (maximum)	Min Turning Circle (wall to wall)	Min Turning Circle (kerb to kerb)
Front lift truck	4.3m	2.49m	10.19m	6.35m	27.5tn	13.2m	12.3m

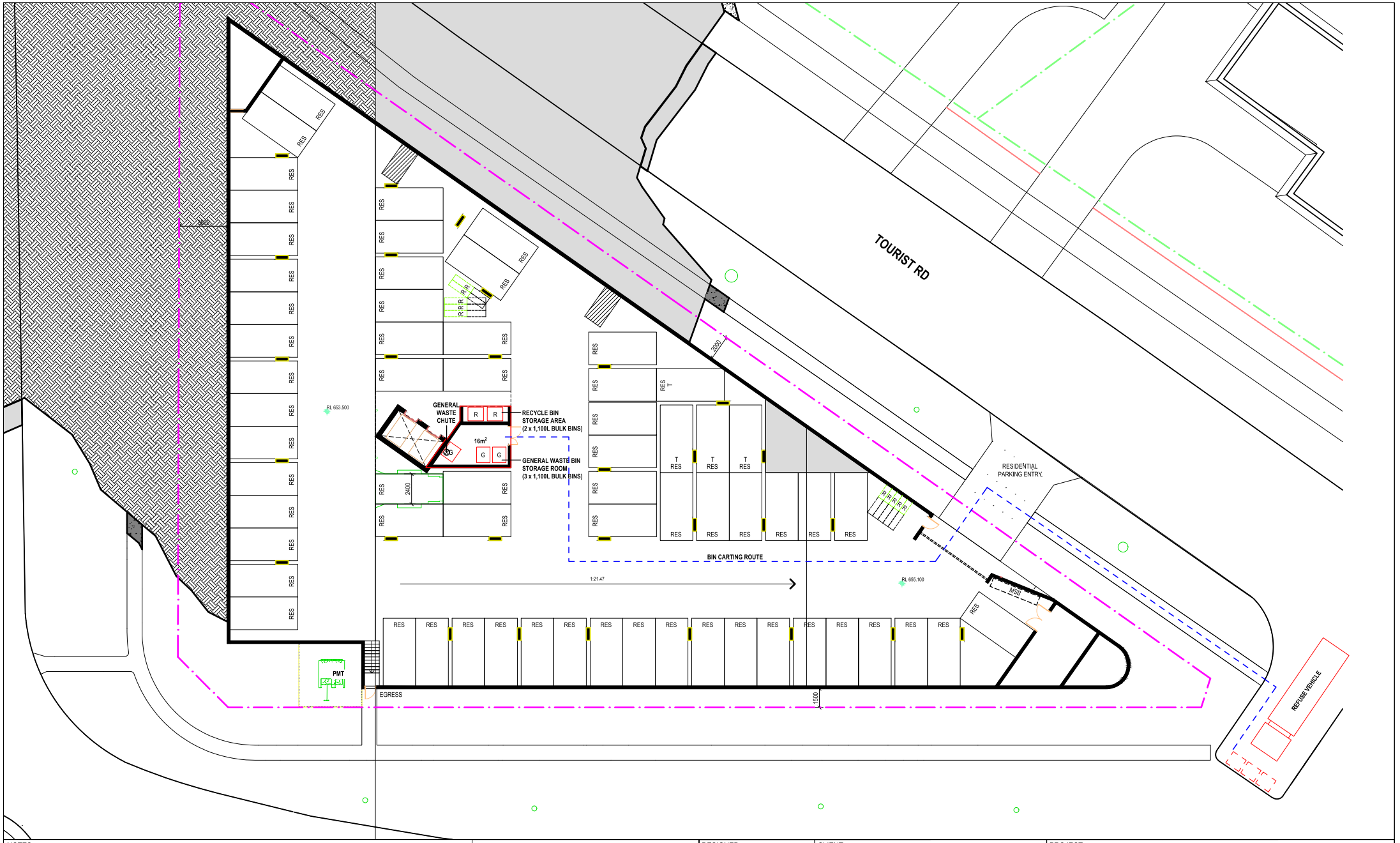
Suitable clearance is available at the proposed servicing point ensuring safe access and unimpeded operation of the vehicles when servicing the bins (noting that suitable clearance = servicing height of 6.4m + 100mm).

6.0 CONCLUSION

This Waste Management Plan has been prepared to provide conceptual details for an efficient and compliant waste management system in the operational phase of the proposed residential development at 51 Tourist Road, East Toowoomba. Further detail on the engineering specifics regarding waste area design and drainage will be completed by others.

The following details provide a summary of the proposed development and the related waste management requirements:

- The proposed development is for a 7 storey, residential apartment complex across a 2,553m^2 parcel of land at 51 Tourist Road, East Toowoomba;
- The development will include 4 x 2 bedroom apartments, 13 x 3 bedroom apartments and 11 x 4 bedroom apartments (i.e. 28 apartments total);
- Waste from the development is expected to consist of general waste and recycling material only;
- The proposed building is expected to generate approximately 7.20m^3 per week of general waste and 3.56m^3 per week of recycling material;
- A bin storage room will be provided at basement level for the storage of all general waste generated from the proposed building;
- 2 x 1.1m^3 recycling bins will be stored in a separate area at basement level that is accessible to all residents via the site lift;
- The general waste bin storage room will be designed to store 3 x 1.1m^3 plastic bulk bins and will be constructed in accordance with Toowoomba Regional Council's *Technical Guideline for New Developments (General Waste and Recyclable Waste Storage and Collections)*;
- Residents will have access to a waste hopper on each level for disposal of general waste via a single waste chute;
- The waste chute will direct all general waste to bulk bins in the basement level bin storage room;
- Bin wash facilities will be provided in the general waste storage room and it will be the responsibility of site management staff to maintain the amenity of the bins and bin storage areas;
- Bulk bins will be carted from the basement level bin storage areas to a servicing point on Tourist Road by site management ahead of collection by Council's contracted service provider;
- Bin servicing will be carried out on Tourist Road in the existing collection vehicle turning bay;
- General waste bins will require servicing three times per week, while the recycling bins will require servicing twice per week;
- Bulk bin servicing will be conducted on Tourist Road by front-lift service vehicles;
- Sufficient access and clearance will be provided at the nominated servicing point for safe servicing of the bulk bins.



NOTES
Adapted from original prepared by Ellivo Architects.

RHODIUM ENVIRONMENTAL

DESIGNED RH	CLIENT BASQ ONE PTY LTD		PROJECT WASTE MANAGEMENT PLAN 51 TOURIST ROAD, EAST TOOWOOMBA
APPROVED RH	JOB NO. RH2605-120	DATE JULY 2026	TITLE BASEMENT LAYOUT AND WASTE MANAGEMENT AREAS
	SHEET SIZE A3	AHD NA	SCALE NTS / REVISION A / FIGURE FIGURE 2