

Waste Management Plan

*Green Square Stage 3
Build to Rent
960A Bourke Street, Zetland*

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Revision	Date	Details
A	27/11/2025	Draft Waste Management Plan
B	15/12/2025	Draft Waste Management Plan
C	16/12/2025	Waste Management Plan for Submission
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I	30/07/2026	Draft WMP – Response to Submission
J	31/07/2026	WMP – Response to Submission
K	03/08/2026	WMP – Response to Submission

Acknowledgment of Country

Urbis acknowledges the Traditional Custodians of the lands we operate on. We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years. We pay our respects to First Nations Elders, past and present.

Urbis is committed to incorporating our respect for First Nations cultures, peoples and storytelling in our work across the Country. We are proud to have partnered with Darug Nation artist, **Hayley Pigram**, and to profile her artwork – **Sacred River Dreaming**.



The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

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Executive Summary

The following Waste Management Plan (WMP) has been prepared for the proposed mixed-use development at **960A Bourke Street, Zetland**.

This **WMP** has been updated in response to the public submissions and agency advice received for SSD-83899206, being the Mixed-Use Development at Green Square Town Centre – Sites 7, 17 and 18. This **WMP** provides an assessment of the amended design for the development following SSD lodgement.

The proposal aims to:

- Respond to the housing challenges facing Sydney through the delivery of diverse housing types in a highly accessible location;
- Demonstrate the strategic and site-specific merit of accommodating the proposed height and FSR of development on the site;
- Contribute to the establishment of Green Square as a town centre through a mixed-use approach and use urban design principles to integrate residential and non-residential land uses;
- Improve the pedestrian connectivity throughout the site, while encouraging the direct connections to public transport and the existing street network; and
- Appropriately respond to neighbouring development and public domain within the GSTC through podium and tower forms with appropriate massing, which protect solar access and minimise environmental impacts.

The complete report must be read in detail prior to implementing the waste management plan.

1. Residential, inclusive of:

- Site 7 with 218 apartments
- Site 17 with 160 apartments
- Site 18 with 126 apartments

2. Commercial throughout the precinct, including the following net leasable area (NLA):

- 505.7sqm of Retail (Food & Beverage)
- 2,957.5sqm of Indoor Recreation

For operational efficiencies, independent waste systems have been allocated to residential and commercial uses the development. Table 1 waste systems and collection arrangements are proposed for the development.

Table 1 – Overall Site – Waste Collection Summary

Use	Stream	Item	Collections per Week	Collection
Residential	Garbage	14x 1100 Litre Bins	2	Council Collection
	Commingled Recycling	56x 1100 Litre Bins	1	
	Organics**	12x 120 Litre Bins	3	
	Hard Waste & E-Waste	28m ² Hard Waste Area	As Required	Council Collection
	Extended Waste Streams*	Bins or Allocated Storage Area as Appropriate	As Required	Private Collection
Commercial	Garbage	4x 1100 Litre Bins	2	Private Collection
	Commingled Recycling	6x 1100 Litre Bins	3	
	Cardboard	3x Bales	3	
	Organics	1x 3000L Sludge Tank	1	
	Extended Waste Streams*	Bins or Allocated Storage Area as Appropriate	As Required	

* Extended waste streams (i.e. e-waste, charity or soft plastic) will be collected on an as required basis due to the requirement to accumulate a sufficient volume of material prior to collection. Anticipated collection of approx. 1 per month per stream.

** It is understood that Residential Organic Waste collection is not available by council at this point in time (2025) but it is expected that the service will be available when the site is operational in Mid 2029.

No bins will be stored outside of the title boundary or presented to kerb for collection at any time.

Building Management will ensure sufficient access is provided for collection vehicle operators during collection times.

Residential waste collection

Residential waste collections will occur on-site directly from the basement waste rooms. **A 10.6m Rear loader truck** or smaller collection vehicle will be utilised to perform all collections, entering and exiting the loading dock in a forward manner, via Tweed Place. **An 11.5m turntable with a vehicle positioning system** will assist truck drivers in safe manoeuvring and travel towards the loading bay for collection.

A minimum height clearance of **4.5m** at the point of collection and **4.0m** throughout vehicle path of travel has been allowed for within the loading dock and associated access. Swept path analysis showing sufficient access is provided in **Appendix B**.

Collection vehicles will prop within the dedicated loading bay (refer to **Appendix A**), with operators to collect the material directly from the waste room and return empty storage containers (if appropriate) immediately upon emptying.

Commercial waste collection

All commercial waste collections will occur on-site directly from the basement waste room. An 8.8m MRV or smaller collection vehicle will be utilised to perform all collections, entering and entering and exiting the loading dock in a forward manner, via Tweed Place.

A minimum height clearance of **4.5m** at the point of collection and **4.0m** throughout vehicle path of travel has been allowed for within the loading dock and associated access. Swept path analysis showing sufficient access is provided in **Appendix B**.

A macerator unit and cardboard baler have been implemented on-site for the management of organic waste and cardboard respectively, extending from the commercial uses.

Introduction

This **WMP** has been updated in response to the public submissions and agency advice received for SSD-83899206, being the Mixed-Use Development at Green Square Town Centre – Sites 7, 17 and 18. This **WMP** provides an assessment of the amended design for the development following SSD lodgement.

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- Demonstrate the strategic and site-specific merit of accommodating the proposed height and FSR of development on the site;
- Contribute to the establishment of Green Square as a town centre through a mixed-use approach and use urban design principles to integrate residential and non-residential land uses;
- Improve the pedestrian connectivity throughout the site, while encouraging the direct connections to public transport and the existing street network; and
- Appropriately respond to neighbouring development and public domain within the GSTC through podium and tower forms with appropriate massing, which protect solar access and minimise environmental impacts.

Background – Housing Delivery Authority

On 19 December 2024, the Housing Development Authority (HDA) was established by DPHI to accelerate the delivery of housing across NSW, under the Environmental Planning and Assessment (Housing Delivery Authority) Order 2024. This has provided a new State Significant Development pathway in which the proposed redevelopment can be undertaken through.

The site was declared State Significant Development (SSD) pursuant to State Significant Declaration Order 2025 (No 2) issued on 26 February 2025. The order specifies development in EOI application 232525 dated 17 January 2025, including development for the purposes of mixed use development comprising commercial premises and residential accommodation with the provision for affordable housing and Build to Rent (BTR) at 960A Bourke Street, 6 Geddes Ave and 411 Botany Road, Zetland as identified in Schedule 18, is declared to be SSD.

The HDA SSD pathway has been established to accelerate delivery of housing and requires that the subject SSD is lodged within 9 months from receipt of the Secretary's Environmental Assessment Requirements (SEARs). Current SEARs for the project were issued for Early Works on 15 April 2025 (SSD-82328958) (SSDA 1), Sites 7, 17 and 18 on 15 May 2025 (SSD-83899206) (SSDA 2) and for Sites 8 and 19 on 15 May 2025 (SSD-84322496) (SSDA 3).

The key features of the Mirvac Green Square HDA proposal are:

- Detailed development consent for the purposes of a mixed use development, with significant residential components comprising build to sell and build to rent dwelling stock and ground floor non-residential uses.
- Delivery of between 1,000 to 1,200 dwellings across 9 buildings in low rise and high rise tower formats.
- Delivery of Affordable Housing dwellings.
- Delivery of the components in two-stage detailed SSDA process.

In conjunction with the SSDA, a State-assessed rezoning process is intended to facilitate the proposed development.

This SSDA forms the second application as part of broader HDA declared development and forms the main works to develop sites 7, 17 and 18 of the GSTC.

Site Description

The site is located at 960A Bourke Street, Zetland and is located within the GSTC. It is situated within the Sydney Local Government Area (LGA) and is located approximately 3.5km south of the Sydney CBD and within immediate proximity of the Green Square Railway Station. The site forms the northern component of the Mirvac HDA proposal, consisting of one lot which is legally described as Lot 6, DP 1199427. An aerial photo of the site is shown at **Figure 1** below.

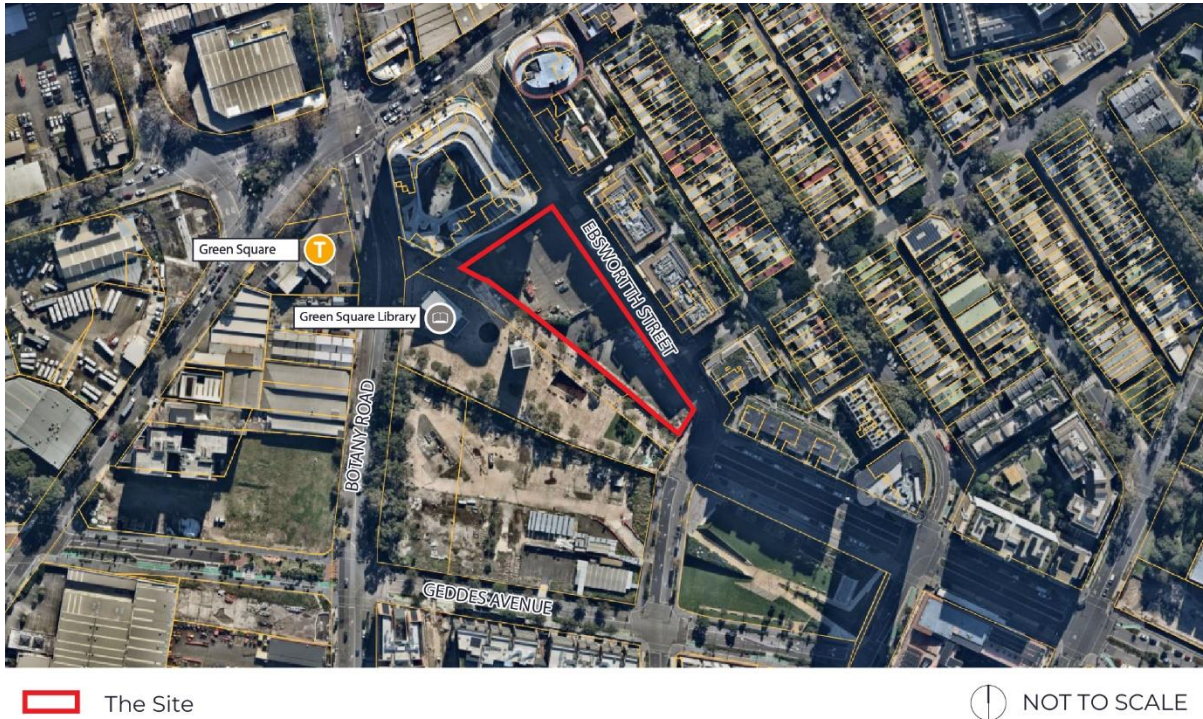


Figure 1 – Sites 7, 17 and 18 Site Aerial

Source: Nearmap, Colliers Urban Planning edits.

Proposed Changes since Lodgement

The key design changes made since lodgement include the following:

- Increase in non-residential land uses in the podium.
- Additional residential communal open space provided.
- Reversion of the public domain design to align with the endorsed Voluntary Planning Agreement, and associated changes to the built form.
- Changes to apartment layout and mix to improve residential amenity.
- Amendments to floor-to-floor heights and alignment of podium datums.
- Tweaks to the top of Site 18 to ensure acceptable overshadowing to the Drying Green.
- Other design development and technical co-ordination changes.

For a detailed description of the changes, refer to the RTS Report prepared by Colliers Urban Planning and the Architectural Drawings prepared by Fender Katsalidis and Plus Studio.

Overview of the Proposed Development

The proposed development seeks to deliver the construction of three BTR buildings which will integrate residential, retail, resident amenity and public domain uses. Specifically, the proposal seeks approval for:

- Excavation and enabling works.
- Construction of 3 mixed use BTR buildings up to 21 storeys in height, comprising:
 - 504 BTR dwellings including a variety of dwelling types including Studio, 1, 2 and 3-bedroom apartments, a portion of which will be affordable housing.
 - Shared internal and external residential amenity space.
 - Non-residential floor space including retail, food and beverage tenancies, BTR staff offices and BTR resident lobbies
 - A shared basement level, incorporating loading zones, waste collection and servicing.
 - Car parking and bike parking to service the proposed development.
- Public domain and landscaping improvements, including:
 - External pedestrian laneways, pathways and through-site links.
 - Tree removal, protection, new plantings and landscaping works.
- Utility and stormwater connections to support the new development.
- Concurrent amendments to the Sydney Local Environmental Plan (Green Square Town Centre) 2013 to facilitate the SSDA.

Table 2 and Table 3 provide high level summaries of the project and proposed uses.

Table 2 – Project High Level Summary

Client:	Mirvac
Land Use Type:	Mixed Use: Commercial & Residential
Number Levels:	Up to 21 storeys and 1 basement level

Table 3 – Development Uses Summary

Development Component	Use	Quantity / Area (NLA)
Residential (Built to Rent)	Residential (1 Bed) (including Studio Apartments)	320 Apartments
	Residential (2 Bed)	158 Apartments
	Residential (3 Bed)	26 Apartments
Commercial	Retail (Food & Beverage)	505.7 m ²
	Indoor Recreation	2,957.5 m ²

This WMP and the waste generation rates provided within has been prepared based on **City of Sydney's Guidelines for Waste Management in New Developments (Amended December 2024)** and best practice waste management methodology and technologies commonly available in Australia.

Refer to **Appendix C** for details on how this WMP answers each of the City of Sydney Waste and Recycling Management Plan forms.

The waste services proposed throughout this WMP will be reviewed with respect to any change in the operational requirements of the subject development over time. Revised waste management plans will be issued to relevant consent authority for approval prior to adoption.

Summary of Mitigation Measures

The below mitigation measures are recommendations proposed for construction and operations regarding waste management of the site. Note that the below is not intended (or to be considered) as a complete list of measures to be considered regarding waste management for the site.

Table 4 – Development Mitigation Measures

Topic	Mitigation measure
Construction Management	
Conflict between pedestrians (public and/or staff) and collection vehicle.	Loading area and collection methodology will cater for nominated collection vehicle sizes, clear zones and loading areas. Traffic management systems will be placed on site to minimise conflicts.
Equipment damage resulting from untrained staff using equipment (e.g. bin lifter), resulting in equipment down time.	Only trained personnel as nominated by construction management (or equivalent) should be permitted to utilise waste equipment.
Dumping and Unauthorised Use of Waste Equipment.	Construction management (or equivalent) will ensure waste areas are secured at all times to deter illegal dumping and unauthorised access or use of waste storage facilities.
Design and Operation	
Overflow of waste (i.e. bins filled to over-capacity) resulting in slipping / tripping hazard for users.	Waste design provided such that adequate bin capacity is provided for all streams, as to avoid bin overflow. Waste transfer paths and storage facilities will be sealed and cleaned routinely. Building management to ensure that an appropriate cleaning/maintenance regime is implemented to maintain the slip rating of floor surfaces as appropriate, and to remove any water or waste spillages when required.
Injury sustained through improper waste handling.	Training should be provided to staff / cleaners addressing correct manual handling techniques in accordance with <i>Occupational Health and Safety Act</i> and associated regulations. Staff / cleaners should be further provided with personal protective equipment as appropriate. A suitable path of travel between the waste rooms, loading dock and commercial facilities is available throughout the site. Staff / cleaners will use bin tugs to transfer bins from the end of the chute rooms to the waste collection room at ground level.
Injury sustained through waste collection operations.	Garbage and recycling bin size limited to a <u>maximum</u> 1100L as per council requirements. Loading area provided at grade within waste room. Collection operators will not need to transfer bins across improper grades. Further separation of food organics will further minimise garbage bin weight.

1

Response to Authority

This section will provide details on responses to Authority request for information.

1 Response to Authority

1.1 Secretary's Environmental Assessment Requirements & Compliance

In accordance with section 4.39 of the Environmental Planning & Assessment Act 1979 (EP&A Act), **Secretary's Environmental Assessment Requirements (SEARs) (SSD-83899206)** have been issued. This report has been prepared to respond to the issued SEARs, as set out in the table below.

Table 5 – SSD-83899206 SEARs

SEARs Requirement	Waste Management Plan Response
SEARs Item 17 Waste Management Provide the measures to be implemented to manage, reuse, recycle and safely dispose of waste in accordance with any council waste management requirements.	Management of the identified waste streams are detailed in Sections 3.1 and 4.1. This WMP and the waste generation rates provided within has been prepared based on City of Sydney's Guidelines for Waste Management in New Developments (Amended December 2024) and best practice waste management methodology and technologies commonly available in Australia.
Identify appropriately sited waste storage areas, collection access paths/roads, and appropriate servicing arrangements for the site.	Waste storage areas, equipment, collection methodology and internal management are detailed in Sections 3.4, 3.6, 4.4 and 4.6. These sections should be read in conjunction with drawings in Appendix A.

1.2 City of Sydney Response to Submission

Table 6 summarises City of Sydney (CoS) objection items applicable to **EIS – Mixed Use Development at Green Square Town Centre – Sites 7, 17 and 18 – SSD-83899206** in regard to waste management, and how these are responded to throughout the WMP.

Table 6 – City of Sydney Comments and Response

CoS Comments / Recommendations	WMP Response
15.2. Loading Vertical clearance assessment along the access ramp and through each loading bay space is to be provided. Critically, the City's waste truck requires a head height of 4.0m.	4.5m Vertical clearance has been allowed within the loading dock and access points. Refer to Appendix A showing height clearance during waste truck path of travel within the ramp and loading area.
15.2.1 Waste Vehicle Collection On-site integrated waste collection is to be provided for standard waste collection vehicle in accordance with Section A.3.6 of the City's Guidelines for Waste in New Developments (2018).	Section A.3.6 of the CoS Guidelines for Waste Management in New Developments (2018) refers to non-residential waste. https://www.cityofsydney.nsw.gov.au/development-guidelines-policies/guidelines-waste-management-new-developments.

EIS **Appendix OO** – Waste Management Plan shows non-residential waste is stored in a separate bin room and is collected by private contractor in accordance with CoS Guidelines for Waste Management in New Developments (2018).

Adequate waste collection information has been provided.

As per Reference C of the guidelines, a turning-path analysis should also be undertaken to assess vehicle movements when exiting the loading dock and to confirm that adequate width is available for the vehicle's swept path and manoeuvring clearances. The analysis must include the following, including three distinct swept-path lines:

- the wheel path
- the vehicle body path
- and the 0.6 m clearance path.

The plans show a 11.5m diameter turntable for use by the City's waste contractor, whereas a 12.5m diameter is required. In addition, the Waste Management Plan states the minimum 4m clearance is provided. Cross-sections are to be provided to demonstrate the design accommodates all required movements.

Appendix B includes swept paths demonstrating manoeuvres in bound, turning and exiting the dock and the development. Swept paths include vehicle body, wheel tracking and clearance.

As confirmed by the Department of Planning, Housing & Infrastructure on 18 June 2026, "*A turntable diameter of **11.5m** is acceptable **only** where mitigation measures are implemented, due to the tighter tolerances. This requires guidance systems or other measures to ensure accurate vehicle positioning.*".

As per Australian Standard 2890.2 Off-street commercial vehicle facilities, Clause 4.3.1(c) specifies that where a turntable is provided, there shall be a minimum of 300mm horizontal clearance between the vehicle on the turntable and any fixed obstruction.

The proposed design achieves the 300mm horizontal clearance and it includes a vehicle positioning system, using scanners and sensors to avoid pinch points. This system will assist truck drivers to safely access the loading bay for waste collection

Based on the above, a turntable diameter of 11.5m with a vehicle positioning system is acceptable.

16. Waste

The waste generation rates used to calculate the volume of waste to be managed and collected are less than the City's waste generation rates detailed in Appendix A of the City's Guidelines for Waste in New Developments (2018).

The City's Guidelines for Waste Management in New Developments (2018) does not have a organics rate for Multi Unit Dwellings. Attachment E of the Guidelines includes 8L per unit for food organics per apartment, which Urbis has used within this Waste Management Plan. This rate is not considered additional to garbage but a diversion from the garbage stream. Adding organics (8L) to garbage rate (120L) exceeds 120L allowance.

Email correspondence from the City (**Appendix E**) confirms that the domestic rate charge is based on a 120L weekly service, not 128L (garbage plus organics).

A maximum collection interval of one collection per week would be scheduled for a development of this location and scale. The City would only offer increased waste collection frequency on constrained sites were it has been demonstrated that weekly collection cannot be accommodated. This is not the case for the proposed development.	Urbis has engaged in early conversations with CoS to understand design requirements for this site. CoS confirmed via email on 12 September 2025 (Refer Appendix E) that once a week collection of recycling bin and twice a week collection of general waste based on 120L per dwelling of each waste stream is acceptable.
The waste generation for residential is to be increased from 112L as proposed to 120L as per Appendix A. This will marginally increase the number of waste bins required and consequently the waste storage and collection areas. Overutilisation of undersized storage and collection areas inhibits sorting and manoeuvrability and may delay City waste contractor collections. Waste generation rates are to be recalculated and accommodated on site.	CoS confirmed via email on 5 August 2025 (Refer Appendix E) that the Domestic rate charge is for 120L per week, not 128L (Garbage plus Organics). This rate is not considered additional to garbage but a diversion from the garbage stream. Adding organics (8L) to garbage rate (120L) exceeds 120L allowance.
A detailed dimensioned plan is to be provided of the waste storage room and collection areas, including clear-paths or travel, designed in accordance with Reference D.1.1–12 of the Guidelines and AS 1428.1 (Design for Access and Mobility).	Waste storage and collection areas do not permit residential access. Access is restricted to collection staff and cleaners. Waste rooms are not designed to AS1428.1 but to the City's Waste Guidelines. Waste room internal passageways are minimum 1.5m and corridors connecting waste rooms to collection points are minimum 1.8m wide, in accordance with the City's Waste Guidelines. Basement drawing provided within Appendix A shows the clearances for corridors and internal passageways.
Chute rooms and separate recycling bin cupboards at each level are to be designed in accordance with Section B.3.1–4.1 of the Guidelines. Additional capacity will need to be provided given typical floor layouts (Sites 7 and 17) exceed the ADG design criteria for the number of apartments per level.	Location of at floor chute room is in accordance with the City's Waste Guidelines. Each apartment is within 30m of the chute room. Chute room includes twin chutes and 240L recycling bin. The 240L recycling bin is not intended for daily use but as a backup in case of chute blockages. The additional 240L recycling bin per floor will be managed by cleaning staff exchanging bins twice daily if a blockage ever occurs within the recycling chute.
Chute discharge rooms are to be separated from residential waste rooms as a resident safety measure.	Residents do not have access to "Resi waste" areas in basement. Residents only have access to at floor chute rooms and ground floor drop off rooms (marked as "Waste Services" or "Additional Waste Streams").
Protection of the Environment Legislation Amendment (FOGO Recycling) Act 2025 (Part 5A.2, Section 170E) mandates the provision of FOGO as a mandatory waste stream for multi-unit dwellings, in addition to standard general waste and recycling. As per Section B, subsection 3.2 and 3.6 of the Guideline, for	FOGO caddies within apartments have been included in the design in accordance with the City's Guidelines Section 1.2 and the FOGO Recycling Act 2025. The City's Waste Guidelines do not reference a requirement for FOGO bins at floor level. FOGO drop off has been included in the Residential waste drop off room. This room is access via lifts which is

waste streams not collected via a chute system (in this case, FOGO), adequate space must be provided on each residential level for the storage and collection of those bins with the maximum 30m distance from the unit.

permissible according to the City's Waste Guidelines Section 2.6.

Conditions are to be imposed requiring construction level drawings to be in accordance with the City's Guidelines for Waste in New Developments (2018). A separate private contract/s is to be entered into for non-residential waste.

Waste design progressed in Detailed Design and Issued for Construction Drawings will be generally in accordance with Waste Design included in DA submission.

2

Response to Green Star Compliance Items

This section will provide details on responses for Green Star Buildings Submission Guidelines compliance.

2 Green Star Accreditation

The Waste Management Plan (WMP) within this document follows best practice waste engineering systems. Table 7 provides a review of **Credit 4 (Responsible Resource Management)** of **Green Star Buildings Submission Guidelines** criteria in comparison to this WMP.

Table 7 – Green Star Criteria Assessment (Responsible Resource Management)

Green Star Criteria (Operational Waste)	Waste Management Plan Response
Separation of Waste Streams: The building must provide bins or storage containers to building occupants to enable them to separate their waste. These bins must be labelled and easy to access and evenly distributed throughout the building. They must also allow for separating the following as a minimum: - General waste going to landfill; - Recycling streams to be collected by the building's waste collection service, including: - paper and cardboard - glass, and plastic. - One other waste stream representing at least 1% of the total annual operational waste (by volume) of the building. This may include collecting any of the following waste types: organics, e-waste, batteries etc. - Any other single waste stream (except food waste) that represents more than 5% of total annual operational waste (by volume) must also be accounted for.	Waste equipment is provided in accordance with the expected waste generation and stream separation per use (as per sections 3.1 and 4.1) General waste streams are provided as per sections 3.1.1.1 and 4.1.1.1. Recycling waste streams are managed as per sections 3.1.1.1 and 4.1.1.1 with other recyclables extended streams shown in 3.1.2 and 4.1.2. Food organics accounts for 11% of the total annual volume. Food Organics will be managed as per sections 3.1.1.2 and 4.1.1.3. Hard waste / Bulky waste represents more than 5% of total annual waste volumes. This is under the assumption that the 28sqm of residential and 10sqm of commercial (with 1.5m height each) will be filled and collected on a fortnightly basis, accounting for 34,560L per week (approx. 19% from the 176,375 of total waste).
Dedicated waste storage area A dedicated area, or areas, for the storage and collection of the applicable waste streams must be provided. The storage area must be sized to accommodate all bins or containers, for all applicable waste streams, for at least one collection cycle. The calculations used to demonstrate that the area provided is adequately sized to handle the recyclable waste streams specified must be based on: - Forecasted waste generated by occupants; and - Collection frequency for each waste stream.	Dedicated waste storages and collection methodology are provided in Executive Summary, Sections 3.5 and 4.5, and Appendix A. Waste calculations per waste stream as forecasted by the development uses and collection frequencies are specified in 3.2 and 4.2.

The storage area(s) must have easy and safe access by collection vehicles. This includes driveway access to the building, any onsite roads and loading docks, and the storage areas themselves providing safe and easy access for bins to be emptied into collection vehicles.

Waste storage areas, collection vehicle access and methodology are detailed in 3.5, 3.6, 4.5 and 4.6 with swept paths shown in Appendix B.

Signoff by waste specialist and/or contractor

A waste specialist and/or contractor must sign-off on the designs to confirm they are adequately sized and located for the safe and convenient storage and collection of the waste streams identified.

A CV of the waste team lead responsible for this WMP is further attached in Appendix C.

3

Waste Management Analysis

RESIDENTIAL

The following waste management strategy addresses the residential components of the subject development.

3 Residential Waste Management

This section covers the waste management strategy for the **residential component only** including waste stream separation, waste calculations and material handling.

For operational efficiencies, independent waste systems have been allocated to the following components of the development:

- Commercial waste strategy is detailed in **Section 4**.

The residential waste management strategy has been developed in alignment with the services provided by City of Sydney. This Waste Management Plan makes allowance for extended waste streams and methodologies to enhance the ability to divert waste from landfill.

3.1 Residential Waste Stream Systems

Waste shall be sorted on-site by tenants as appropriate into the following streams.

Extended Waste streams are not mandatory to be separated and subject to building management preference.

Table 8 – Residential Waste Streams

Core Waste Streams	Extended Waste Streams
General Waste (Garbage)	Additional Waste Streams
Commingled Recycling	Cardboard
Food Organics	
Hard Waste / Bulky Waste	
Electronic Waste	
Charity	

3.1.1 Core Waste Streams

3.1.1.1 General Waste and Commingled Recycling

Each apartment shall include a plastic bin with a minimum of 2 compartments. Each apartment will also have a provision for enough space for the storage of at least two day's generation of general waste and commingled recycling.

Residents will transfer bagged general waste and loose recyclables as required into the appropriate waste chute provided on each floor Residential Waste Chute Rooms (Per Level).

3.1.1.2 Food Organics

Each apartment shall have provision for storage of kitchen organics caddys (refer to Figure 2) to have a minimum capacity of 7 litres for the temporary holding of food organics waste. Residents will transfer these caddys to the basement level waste room and dispose the material within the 120L bins.



Figure 2 – Example Kitchen Caddy

Kitchen caddys may be lined with biodegradable bags (i.e. corn-starch bags) or paper (i.e. newspaper) if desired.

It is understood that Residential Organic Waste collection is not available by council at this point in time (2025) but it is expected that the service will be available when the site is operational in Mid 2029 as Council endorsed a plan to roll out a food recycling service to all households in the City of Sydney by 2030 set in their **Community Strategic Plan: Delivering Sustainable Sydney 2030–2050 (July 2025)**. It is expected that kitchen caddys (or similar) will be provided by council to residents as part of their roll out service.

3.1.1.3 Cardboard Waste

Provisions for separate 240 litre cardboard bins have been made within the Residential Waste Chute Rooms (Per Level). Any large cardboard material will be disposed within this bin as required by residents. Staff/cleaners will transfer this material via the lifts and dispose within the 1100L bins provided in the waste room. **No residential cardboard waste is to be collected separately from the commingled recycling.**

3.1.1.4 Hard Waste

A dedicated 28sqm residential hard waste area on basement level will be used by residents to temporarily store their hard waste until the time of collection. Residents will use residential lifts to transfer their hard waste between floors to the designated communal area. Hard waste will be collected on an as required basis.

Hard Waste collection will be coordinated with building management to ensure appropriate measures are taken to transfer the waste in a safely manner. Space adjacent to the loading bay can be used to support movement of materials for collection.

3.1.1.5 E-waste

A dedicated set of 240L bins on basement level waste room will be used by residents to dispose of any electronic waste until the time of collection. Residents will use the goods lift to transfer their electronic waste between floors to the designated communal bins.

3.1.1.6 Charity

A dedicated set of 240L bins on basement level waste room will be used by residents to temporarily hold of any good quality household items that can be repurposed, reused or donated, until the time of collection.

3.1.2 Extended Waste Streams

Extended waste stream separation is not mandatory and are only to be provided if deemed necessary by building management.

3.1.2.1 Additional Waste Streams

The following list of waste streams have not been individually included within the equipment provision but rather are a suggestion of streams that are typically found in residential waste generation and its separation will increase the diversion from landfill.

Building management may decide to separate these waste streams if sufficient volume is generated.

Table 9 – Additional Waste Stream Methodology

Waste Stream	Storage Method
Soft Plastic	To be bagged using a gathering stand (refer Figure 3 below for example) or a 660 litre bin subject to collection contractor preference
Expanded Polystyrene (EPS)	To be stored within a gathering stand (refer Figure 3 below for example) or an 1100 litre bin subject to collection contractor preference
Unique Recyclables	Generally stored within smaller bins appropriate to the stream within a dedicated area as nominated adjacent to the loading dock. This may include fluorescent tubes, X-rays, eye glasses, printer cartridges. To facilitate the disposal of these streams, it is recommended that a series of recycling stations are installed in high residential movement (e.g. podium, communal areas).



Figure 3 – Example Soft Plastic Gathering Gathering Stand (left) and unique recyclables station (right)

3.2 Residential Waste Generation

Waste generation rates per week are shown in Table 10 and are based on a 7 day per week operation for residential uses.

Table 10 – Residential Waste Generations

Use	Weekly Generation Rate (Litres / Apartment / Week)		
	General Waste	Recycling	Organics
Residential – Studio	112	120	8
Residential – 1 Bed	112	120	8
Residential – 2 Bed	112	120	8
Residential – 3 Bed	112	120	8

Weekly waste generation assessment for the residential development component is shown in Table 11.

Common areas of the residential facilities (i.e. lounge area, gym, amenity, co-working, etc.) are not considered to generate additional waste. Waste generated by these ancillary areas is created in service of the apartments and is therefore incorporated into the rates shown above.

Table 11 – Residential Waste Generation Assessment

Use	Quantity	Weekly Waste Volume (Litres / Week)		
		General Waste	Recycling	Organics
Site 7 – Residential	320	35,840	38,400	2,560
Site 17 – Residential	158	17,696	18,960	1,264
Site 18 – Residential	26	2,912	3,120	208
TOTAL	504	56,448	60,480	4,032

3.3 Internal Waste Transfer and Handling

All residential waste transfer paths are to be exclusively within the site title boundary and should not require facilities/cleaning staff to exit title to perform operations. Transfer routes for waste collections are not to include stairs or gradients greater than 1:14.

Cardboard will be transferred from the chute rooms by facilities/cleaning staff on a as required basis.

Transfer of waste bins from the chute termination rooms (e.g. Site 17 and 18) to the centralised collection bins (Site 7) will be undertaken by facilities/cleaning staff using a mechanical tug or ride-on tug. Bin transfer is anticipated to occur once per day, per core, and will occur entirely within the basement.

3.3.1 Residential Waste Chute Rooms (Per Level)

Dual chutes will be provided for the disposal of waste generated from each residential tower. There is to be one chute dedicated to garbage and another dedicated to commingled recycling. The chute doors will be signed as garbage or commingled recycling as appropriate. Each chute will output directly into the stream appropriate end of chute equipment within the waste room.

Provision of a 240L bin for management of bulky and cardboard items is within each residential level.

3.3.2 End of Chute Rooms (Basement)

The end of the chute room will manage the residential waste incoming from the upper levels. Each tower will have one end of chute room, with each chute stream to output directly into a linear track system. General waste chutes will have provision of chute compactors. No chute compactor is provided within the recycling chutes. Rubber skirting is to be provided at the end of the chutes to ensure debris from chute will not create a risk to operators.

Each linear track system will have capacity for daily waste expected per chute.

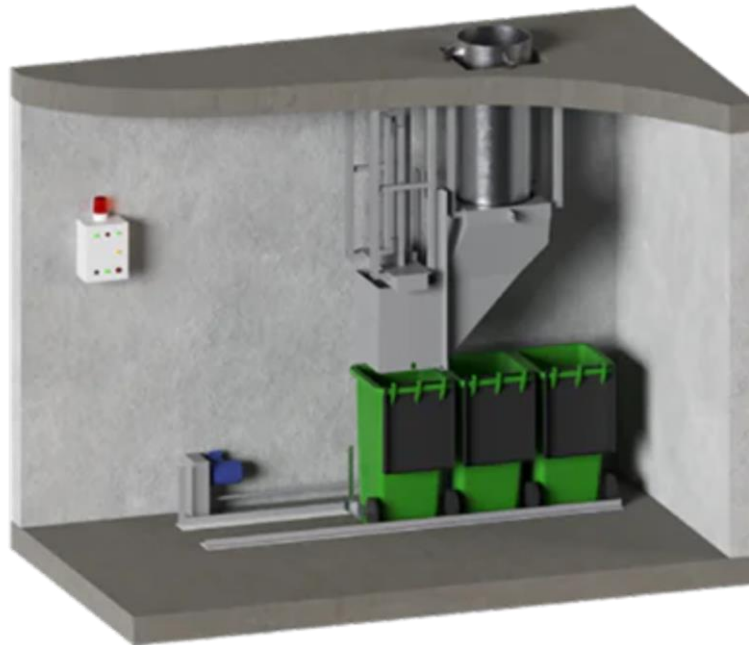


Figure 4 – Example of Linear Track System.

3.4 Residential Waste Management Equipment

All core streams will be managed via bins as appropriate to the stream.

Table 12 details the storage method, size, capacity and frequency of collection required for the development. Chute compactors are assumed to provide a **compaction ratio of 3:1**; in practice, higher compaction ratios may be achieved subject to material disposed and supplier equipment capabilities.

Table 12 – Residential Waste Equipment Capacity & Volume

Stream	Storage Method	Size	Qty	Collections per Week	Weekly Capacity (L) (Uncompacted)	Weekly Volume (L) (Uncompacted)
General Waste	Bin Based	1100 Litre	14	2	61,600	56,448*
Commingled Recycling	Bin Based	1100 Litre	56	1	61,600	60,480
Food Organics	Bin Based	120 Litre	12	3	4,320	4,024

** It is noted that the anticipated food waste has been subtracted from the general waste generation rate. Due to the low participation expected from residents to separate food waste. If required, the general waste bin capacity (61,600) provided can manage this minor exceedance ($56,336 + 4,024 = 60,360$), and as such the system specified is considered appropriate.*

Due to the requirement for a suitable volume of each extended waste stream (refer to Section 3.1.2) to be generated prior to collection, all extended streams will be collected on an as-required basis by a private collection contractor once the storage area capacity is reached. Further detailed on the storage methodology is provided in Table 9.

3.5 Residential Waste Storage and Location

Table 13 demonstrates the cumulative area requirements (excluding circulation) in comparison to the designed provision of ground level waste storage to demonstrate the adequacy of the area provided.

Table 13 – Waste Storage Area Requirements

Waste Room	Waste Equipment	Area Required (m ²)	Area Provided (m ²)
Site 7			
Adjacent to Loading Area	28 sqm Hard Waste	28.00	28.30
Site 7	1no. 3 x 1100L Bin Linear Track	12.50	271.40
End of Chute Room	1no. 2 x 1100L Bin Linear Track	8.50	
	70no. 1100L Bins	7.98	
	5 sqm Bin Wash Area	5.00	
Site 7	2no. 660L Bins	1.96	15.40
Residential Waste Drop Off Room	4no. 240L Bins	1.72	
	12no. 120L Bins	3.12	
Site 17	2no. 2 x 1100L Bin Linear Track	17.00	74.80
End of Chute Room	6no. 1100L Bins	7.98	
	21no. 240L Bins	9.03	
	1no Bin Tug Equipment	2.00	
Site 17			
Additional Waste Stream	8no. 240L Bins	3.36	17.80
Site 18	2no. 2 x 1100L Bin Linear Track	17.00	27.80
End of Chute Room	1no Bin Tug Equipment	2.00	
Site 18	4no. 1100L Bins	5.32	20.10
Additional Waste Stream	8no. 120L Bins	2.08	
TOTAL		131.19m²	455.60m²

3.6 Residential Waste Collection Methodology

All waste will be collected outlined below.

Table 14 – Residential – Waste Collection Summary

Use	Stream	Item	Collections per Week	Collection
Residential	Garbage	14x 1100 Litre Bins	2	Council Collection
	Commingled Recycling	56x 1100 Litre Bins	1	
	Organics**	12x 120 Litre Bins	3	
	Hard Waste & E-Waste	28m ² Hard Waste Area	As Required	Council Collection
	Extended Waste Streams*	Bins or Allocated Storage Area as Appropriate	As Required	Private Collection

* Extended waste streams (i.e. e-waste, charity or soft plastic) will be collected on an as required basis due to the requirement to accumulate a sufficient volume of material prior to collection. Anticipated collection of approx. 1 per month per stream.

** It is understood that Residential Organic Waste collection is not available by council at this point in time (2025) but it is expected that the service will be available when the site is operational in Mid 2029.

Residential waste collections will occur on-site directly from the basement waste rooms. **A 10.6m Rear loader truck** or smaller collection vehicle will be utilised to perform all collections, entering and exiting the loading dock in a forward manner, via Tweed Place. **An 11.5m turntable with a vehicle positioning system** will assist truck drivers in safe manoeuvring and travel towards the loading bay for collection.

A minimum height clearance of **4.5m** at the point of collection and **4.0m** throughout vehicle path of travel has been allowed for within the loading dock and associated access. Swept path analysis showing sufficient access is provided in **Appendix B**.

Collection vehicles will prop within the dedicated loading bay (refer to **Appendix A**), with operators to collect the material directly from the waste room and return empty storage containers (if appropriate) immediately upon emptying.

4

Waste Management Analysis

COMMERCIAL

The following waste management strategy addresses the commercial components of the subject development.

4 Commercial Waste Management

This section covers the waste management strategy for the **commercial component only**, including waste stream separation, waste calculations and material handling proposed.

For operational efficiencies, independent waste systems have been allocated to the following components of the development:

- Residential waste strategy is detailed in **Section 3**.

The commercial waste management strategy has been developed in alignment with expectations set by **City of Sydney's Guidelines for Waste Management in New Developments (Amended December 2024)**, better practice in Australia and similar development back of house operations. This Waste Management Plan makes allowance for extended waste streams and methodologies to enhance the ability to divert waste from landfill.

4.1 Commercial Waste Stream Systems

Waste shall be sorted on-site by tenants as appropriate into the following streams. **Extended Waste streams are not mandatory to be separated and subject to building management preference.**

Table 15 – Commercial Waste Streams

Core Waste Streams	Extended Waste Streams
General Waste (Garbage)	Electronic Waste
Commingled Recycling	Soft Plastics
Food Organics	Used Cooking Oil
Cardboard	Polystyrene
Hard Waste / Bulky Waste	

4.1.1 Core Waste Streams

Throughout the facility it will be ensured that it is as easy to dispose of all core waste streams as it is garbage. This will be achieved by ensuring the development is appropriately furnished with bin stations in key areas. Clear signage is to be appropriately displayed in combination with the bin stations to identify the segregation of waste streams and correct use of the bins.

Bin stations will be used to encourage the separation of waste streams and diversion from landfill. The bin stations incorporate the provision of multiple bins for different waste streams at central locations and common areas for ease of disposal. This system is beneficial as users are required to make a conscious decision as to which bin they place their waste, typically resulting in a reduced volume of garbage (landfill).

The use of bin stations also reduces the amount of locations cleaners are required to service throughout the development.

Each commercial tenancy will have a collective area for management of waste, with its location to be determined by the tenant. Each bin station is recommended to consist of a minimum of three bins to have a minimum cumulative capacity as outlined in Table 16 for the temporary holding of the core waste streams: garbage, commingled recycling in all spaces, with cardboard and organics only in those necessary.

Anticipated minimum disposal frequency per day for each tenancy use is also outlined in Table 16. "Transfer frequency" within the below table refers to the frequency at which waste will be required to be transferred from the commercial tenancies to the waste disposal systems on basement.

Table 16 – Commercial – Tenancy Bin Capacity Rates & Disposal Frequency

Tenancy Use	Bin Capacity by Stream (Litres per 100m ² of NLA)				Transfer Frequency per day
	General Waste	Recycling	Cardboard	Organics	
Food & Beverage	35L	70L	100L	35L	3
Indoor Recreation	10L	20L	50L	5L	1

4.1.1.1 General Waste and Commingled Recycling

Each tenant will manage their waste independently within their tenancy fit out. Staff/cleaners will be responsible for transferring and disposing garbage and commingled recycling into the corresponding 1100 litre bins located in the basement waste room.

Garbage waste is to be disposed of bagged and commingled recycling is to be disposed of loosely within the provided bins.

4.1.1.2 Cardboard

A vertical baler will be used for the disposal and management of cardboard waste generated throughout the commercial development. As such, each tenancy shall have a designated area or bin sized at a capacity deemed appropriate to the proposed use for the temporary holding of cardboard waste.

Tenants/cleaners will be responsible for transferring and disposing cardboard waste directly into the vertical baler or cardboard drop-off cage/bin provided in the basement waste room (refer to Appendix A). Only trained staff/cleaners are to operate the baler.

Large cardboard items are to be broken down and flattened prior to disposal.



Cardboard Drop-off Cages

Vertical Baler

Figure 5 – Example cardboard cage (left and centre), and baler (right).

4.1.1.3 Food Organics

Macerator

Organic waste extending from the development will be managed via a macerator unit located within the commercial waste area on the basement waste room (refer to Appendix A). Macerator units operate similar to a blending mechanism to process organic waste, reducing the organic input into a sludge-like product. The resulting sludge behaves largely as a liquid and can be pumped (typically through a 75mm piping connection) to a large holding tank for storage. With respect to the proposed development the macerator provided will ultimately discharge into a 3,000L holding tank provided within the waste room.

The macerator unit will be fitted with a bin lifter attachment enabling immediate disposal of organics bins into the unit.



Figure 6 – Example Macerator (left) and food organics trolley (right).

Commercial tenancies may be furnished with small bins/tubs for the separation of temporary holding of food organics, as deemed appropriate by the occupant(s). Tenants/staff will transfer and empty these bins/tubs into the larger 120L organics bin provided in the basement commercial waste room.

4.1.1.4 Hard Waste and Electronic Waste

A dedicated 10sqm hard waste on basement will be used by tenants to temporarily store their hard waste until the time of collection. Hard waste will be collected on an as required basis.

Hard Waste collection will be coordinated with building management.

4.1.2 Extended Waste Streams

Extended waste stream separation is not mandatory and are only to be provided if deemed necessary by building management.

4.1.2.1 Soft Plastics

Based on the waste stream composition of similar developments, it is anticipated that a moderate volume of soft plastics will be generated from the proposed development which supports independent stream management. This type of waste is often accounted from the general waste stream, hence the space can be substituted for such strategy.

If this stream is separated, Soft plastic can be managed via a vertical baler (provided for cardboard management), with 660L bins for the temporary holding of soft plastics until such time as the volume is sufficient for a complete bale. At all other times, the baler will be used for cardboard management, as per Section 4.1.1.2.



Figure 7 – Example soft plastic baling (left) and soft plastic gather stand (right).

4.1.2.2 Used Cooking Oil

Based on the waste stream composition of similar retail food tenancies, it is anticipated that a moderate volume of cooking oil will be generated from the proposed development which supports independent stream management.

If this stream is separated, Used cooking oil can be managed via a 700L vacuum tank provided within the waste room for the temporary holding of used cooking oil until such time as the volume is sufficient for collection.

4.1.2.3 Additional Waste Streams

The following list of waste streams have not been individually included within the equipment provision but rather are a suggestion of streams that are typically found in residential waste generation and its separation will increase the diversion from landfill.

Table 17 – Additional Waste Stream Methodology

Waste Stream	Storage Method
Expanded Polystyrene (EPS)	To be stored within a gathering stand or an 1100 litre bin subject to collection contractor preference
Waxed Cardboard	This can be managed in a similar way to the cardboard waste stream.

4.2 Commercial Waste Generation

Commercial waste generation rates per week are shown in Table 18.

Table 18 – Commercial Waste Generations

Use	Weekly Generation Rate (Litres / 100m2 / Week)			
	General Waste	Recycling	Cardboard	Organics
Food & Beverage*	1,190	1,500	2,000	700
Indoor Recreation	140	400	1,000	35

* A "Food and Beverage" rate has been adopted to all retail tenancies proposed on site, to allow changes in tenancy use throughout operations of the site. The proposed waste generation rate is based in a combination between *City of Sydney's Guidelines for Waste Management in New Developments (Amended December 2024)* for Pubs / Clubs and Restaurant / Eating.

Weekly waste generation assessment for the residential development component is shown in Table 19.

Common areas of the commercial facilities (i.e. staff end of trip, back of house, etc.) are not considered to generate additional waste. Waste generated by these ancillary areas is created in service of the tenancies and is therefore incorporated into the rates shown above.

Table 19 – Commercial Waste Generation Assessment

Use	Area (NLA)	Weekly Waste Volume (Litres / Week)			
		General Waste	Recycling	Cardboard	Organics
Food & Beverage	505.7	3,540	5,310	6,195	2,478
Indoor Recreation	2,957.5	4,141	11,832	29,580	1,035
TOTAL		7,681	17,142	35,775	3,513

4.3 Internal Waste Transfer and Handling

A suitable path of travel between the commercial tenancies to the waste rooms, loading dock and facilities for disposal of waste, is available throughout the site.

4.4 Commercial Waste Management Equipment

Table 20 detail the storage method, size, capacity and frequency of collection required for the development.

Baler is assumed to provide a compaction ratio of 5:1 on cardboard and 10:1 on soft plastics; in practice, higher compaction ratios may be achieved subject to material disposed and supplier equipment capabilities. Food Waste Macerator is assumed to provide a compaction ratio of 2:1.

Table 20 – Commercial Waste Equipment Capacity & Volume

Stream	Storage Method	Size	Qty	Collections per Week	Weekly Capacity (L) (Uncompacted)	Weekly Volume (L) (Uncompacted)
General Waste	Bin Based	1100 Litre	4	2	8,800	7,681
Commingled Recycling	Bin Based	1100 Litre	6	3	19,800	17,142
Cardboard	Bales	Bales*	3	3	51,840	35,775
Food Organics	Macerator and Tank	3,000L Tank	1	1	6,000	3,513

**Bale capacity of 5,760L (compacted).*

Due to the requirement for a suitable volume of each extended waste stream (refer to section 4.1.2) to be generated prior to collection, all extended streams will be collected on an as-required basis by a private collection contractor once the storage area capacity is reached.

4.5 Commercial Waste Storage and Location

Table 21 demonstrates the cumulative area requirements (excluding circulation) in comparison to the designed provision of waste storage to demonstrate the adequacy of the area provided.

Table 21 – Commercial Waste Storage Area Requirements

Waste Room	Waste Equipment	Area Required (m ²)	Area Provided (m ²)
Site 17 (basement)	10no. 1100L Bins	13.30	60.70
	1no. Baler	1.96	
	3no. Bales	4.32	
	Macerator and Tank Unit	7.00	
	10 sqm Hard Waste & E-waste	10.00	
TOTAL		36.58 m²	60.70m²

4.6 Commercial Waste collection Methodology

All commercial waste will be collected via private contractor.

Table 22 – Commercial Waste Collection Summary

Use	Stream	Item	Collections per Week
Commercial (Overall Precinct)	<i>Garbage</i>	<i>4x 1100 Litre Bins</i>	<i>2</i>
	<i>Commingled Recycling</i>	<i>6x 1100 Litre Bins</i>	<i>3</i>
	<i>Cardboard</i>	<i>3x Bales</i>	<i>3</i>
	<i>Food Organics</i>	<i>1 x 3,000L Tank</i>	<i>1</i>
	<i>Extended Waste Streams*</i>	<i>Bins or Allocated Storage Area as Appropriate</i>	<i>As Required</i>

**Extended waste streams (i.e. charity and e-waste) will be collected on an as required basis due to the requirement to accumulate a sufficient volume of material prior to collection. Anticipated collection of approx. 1 per month per stream.*

All commercial waste collections will occur on-site directly from the *basement waste room*. An 8.8m MRV or smaller collection vehicle will be utilised to perform all collections, entering and exiting the loading dock in a forward manner, via *Tweed Place*. A minimum height clearance of 4.5m at the point of collection and throughout vehicle path of travel has been allowed for within the loading dock and associated access. Swept path analysis showing sufficient access is provided in *Appendix B*.

A minimum height clearance of **4.5m** at the point of collection and **4.0m** throughout vehicle path of travel has been allowed for within the loading dock and associated access. Swept path analysis showing sufficient access is provided in **Appendix B**.

No bins will be stored outside of the title boundary or presented to kerb for collection at any time.

Building/Dock Management will ensure sufficient access is provided for collection vehicle operators during collection times.

5

Construction and Demolition Waste

Following sections details on best practice waste management methodology, standards required for construction and Demolition waste.

5 Construction and Demolition Waste Management

The following Construction & Demolition Waste Management Plan (C&D WMP) has been prepared for the proposed construction and demolition works at **960A Bourke Street, Zetland**. The information contained within this report applies only to the construction and demolition phases of the proposed development and is provided as a high-level summary of typical construction and demolition (C&D) waste operations including estimates of C&D waste volumes from site works. This information shall be incorporated into the site's Construction Management Plan (CMP) as appropriate. Should C&D operations significantly differ in practice, the principal construction contractor will be responsible for documenting any significant departures from this brief.

A detailed Construction and Demolition (C&D) waste strategy will be incorporated into the site's Construction Management Plan (CMP), to be prepared (and submitted to relevant consent authority) as a separate document by the principal construction contractor prior to the commencement of construction works.

The following is provided as a high-level summary of C&D requirements for ease of reference. Information as shown is not intended to form the basis of any construction and/or demolition works and will be superseded in full by the C&D strategy as nominated in the CMP.

5.1 Guidelines & objectives

This C&D Waste Management Plan has been prepared based on City of Sydney's Green Square Town Centre Development Control Plan 2012 and current best practice waste management methodology and technologies currently available in Australia. The following objectives are outlined in Council's guidelines and are acknowledged and supported by this report:

- Reduce the amount of construction and demolition waste going to landfill.
- Reduce the amount of waste generated in the operation of a development from going to landfill.
- Ensure waste from within developments can be collected and disposed of in a manner that is healthy, efficient, minimises disruption to amenity, and is conducive to the overall minimisation of waste generated.

5.2 Project Description

The proposed development seeks to deliver the construction of three BTR buildings which will integrate residential, retail, resident amenity and public domain uses, with construction and demolitions works proposed as outlined in the following table.

Table 23 – Proposed Construction and Demolition Works

Demolition Works Summary	▪ Demolition of driveway and carpark ▪ Demolition Activities ▪ Vegetation clearing ▪ Demolition of existing handstand and asphalt ▪ Removal of existing vegetation ▪ Site level ▪ Deep Excavation
Construction Works Summary	▪ Concrete frame construction ▪ Glazed and Aluminium facade installation ▪ Internal apartment finishes ▪ Minor earthworks (cut & fill) ▪ Site preparation ▪ Construction Activities ▪ External hardstands, paved areas, and landscaping

5.3 C&D Waste Management

5.3.1 C&D Waste Streams

Construction and demolition (C&D) debris is a separate waste stream from municipal solid waste (MSW), and includes materials such as steel, timber, plasterboard, brick, and concrete.

All waste generated throughout construction and demolition activities are to be effectively stored, handled, treated, reused, recycled, and/or disposed of lawfully and in a manner that minimises environmental harm. As a guiding principle, waste should be managed in accordance with the waste hierarchy, in order to maximise waste diversion from landfill.

In the context of the subjected works, the approach of the waste hierarchy can be generally considered as per the below:

- **Re-use (onsite):** Direct and immediate re-use of materials onsite as part of subsequent construction activities.
- **Re-use (offsite):** Re-use of materials offsite under separate construction activities unrelated to the subject development.
- **Recycle:** Volumes sent to an offsite facility to be recycled into new products and/or on-sold for further use.
- **Dispose:** Volumes sent to landfill / clean fill for end disposal. Materials are not harnessed for any further use.

The following table outlines typical C&D waste materials and opportunities for recovery. The below are recommendations only and material reuse and recyclability once it leaves the site are the responsibility of the off site recycling site.

Table 24 – Typical C&D Waste Materials

Waste Stream	Reuse and Recycling Recommendations	
	Reuse	Recycle
Bricks	Cleaned and/or rendered for reuse onsite or offsite. May also be crushed for use as fill.	Transported to a C&D waste recycler for crushing / recycling into recovered products.
Concrete / Ceramics / Fines	May be crushed onsite for applications as fill / gravel or used offsite as fill material.	Transported to a C&D waste recycler for crushing / recycling into recovered products.
Excavation Material	Reused onsite as fill or transported to a C&D waste recycling for recovery as fill under separate use or disposed as contaminated waste (if any).	N/A
Glass	N/A	Transported to a glass waste recycler for crushing / recycling into recovered products (e.g., aggregate for concrete).
Green Waste	Can be mulched onsite and applied to any existing green areas (e.g., for landscaping).	Transported to a recovery facility for processing into a mulch or compost materials.
Metals	N/A	Transported to a metals waste recycler for melting and moulding into secondary products (e.g., piping).
Plasterboard	May be crushed onsite for applications as fill / gravel or used offsite for other projects.	Transported to a C&D waste recycler for crushing / recycling into recovered products.
Roof Tiles	Can be cleaned and reused in its original form onsite or offsite for other projects. Otherwise, may be crushed for reuse in landscaping.	May be transported to a recovery facility for crushing / recycling into recovered products.
Timber (untreated)	Hardwood beams may be reused as floorboards, fencing, furniture, etc. Other timber materials may be mulched and used onsite for landscaping.	May be transported to a recovery facility for chipping and processing into a mulch or compost material.

5.3.2 C&D Waste Diversion targets

As per standard industry practice, a minimum 90% diversion rate from landfill for waste generated from construction activities will be targeted across the subject site. This is further outlined and supported in the NSW Waste Avoidance and Resource Recovery Strategy 2014–2021 (superseded), and NSW Waste and Sustainable Materials Strategy 2041.

The following sections provide high-level estimates for the volumes of construction and demolition waste anticipated to be produced by this project. Note that more accurate estimates may be provided by the quantity surveyor or head contractor.

5.4 C&D Waste Volume Estimates

Estimated volumes of construction and demolition waste materials have been calculated based on data provided to Urbis from similar developments.

It is acknowledged that estimated C&D waste volumes in the following tables have been reviewed by our client and may be updated when more accurate estimates are received by the relevant personnel (e.g., head contractor or quantity surveyor).

5.4.1 Demolition Phase

Demolition works will usually generate waste through the demolition or deconstruction of existing structures on the subject site. This may also include clearing of vegetation (generating green waste) as the site is prepared for construction works. It is acknowledged that the current site has minimal structural elements and as such the type of demolition waste expected will be minimal.

The demolition contractor will be responsible for ensuring all planned demolition/deconstruction activities are undertaken in accordance with relevant waste policies and local Council requirements. They will also be responsible for educating subcontractors and other site personnel regarding procedures for recovery of waste.

A high-level estimate of waste volumes generated throughout proposed demolition works is provided in the table below and such should be treated as indicative only. This estimate is based on Urbis held data from previous similar projects with demolition waste data available.

Table 25 – Estimated Demolition Waste Materials

Waste Stream	Estimated Tonnage	% Typically Recovered	Estimated Diversion from Landfill (t)
Asphalt	17.3	50%	8.5
Green Waste	2.05	95%	1.94
Concrete Handstand	10	95%	9.5
Timber Hoarding	1.0	95%	0.95
Miscellaneous Metal Items	1.0	95%	0.95

5.4.2 Construction Phase

Construction works will usually generate waste through the erection and finishing of the development (i.e., construction waste). A CMP (to be prepared by others) should include a detailed C&D waste strategy in line with the head contractor's program and trades scheduling.

Most waste products generated throughout construction works can be readily recycled or reused, and include steel framing, damaged glazing, cladding and roof sheeting, plasterboard linings, timber features and framing, metals, concrete, and rubble. Metal and plastic piping and conduits, cabling, and floor finishes such as carpet and tiling should also be recovered.

Accurate materials estimation and ordering, offsite prefabrication of framing modules and fitout components, and monitoring and review of specifications and onsite construction and fitout operations will minimise the potential volume of construction waste to be generated in the first instance.

Subcontractors and other personnel should be educated regarding requirements for recovery of waste. This will assist in maximising recovery of resources from C&D waste onsite and minimise the cost and environmental impacts of waste being disposed to landfill.

A high-level estimate of waste volumes generated throughout proposed construction works is provided in the table below and such should be treated as indicative only. This estimate is based on Urbis held data from previous similar projects with construction waste data available.

Table 26 – Estimated Construction Waste Materials

Waste Stream	Estimated Tonnage	% Typically Recovered	Estimated Diversion from Landfill (t)
Bricks / Ceramics	1,051.8	90%	946.62
Concrete	1,829.1	90%	1,646.19
Timber (untreated)	4,801.5	95%	4,561.42
Packaging	823.1	80%	658.48
Metals	228.6	100%	228.6
Other Waste (e.g. plasterboard, ceramics)	1,188.9	50%	594.45
Total	9,923.0	Total	8,635.76
% Diverted from Landfill		85.09%	

5.5 Waste Storage

Waste skips shall be stored on-site unless granted permission by the relevant authority to utilise public space.

All waste management facilities onsite should adhere to the following requirements:

- Located conveniently to enable easy access for onsite manoeuvring and collection
- Incorporated with other loading facilities/areas

The following safety measures should also be considered applicable to the waste storage area:

- Location of bins is not to interfere with the line of site of drivers entering or leaving the site
- Skips bins should be located in well-lit areas and clearly visible
- Safe paths of travel should be designated with reflective tape, barriers, and cones
- Skip bins must be secured, and must not be overfilled

5.5.1 Waste and Recycling receptacles

Where applicable, separate receptacles shall be provided for the safe disposal of hazardous waste (e.g., light bulbs, batteries, etc.).

The aspirational targets and separation methodology generated throughout during demolition and construction works is provided in the table below.

Table 27 – Construction Waste – Aspirational Stream Separation

Waste Stream	Expected Composition	Typical Receptacle	Note
Bricks	≈ 5% of total volume	Skips	Minimum 90% recovery of these mixed waste streams should be targeted, to be achieved through collection by reuse and recycling waste contractors. This recovery rate should be demonstrated through provision of disposal dockets and periodic summaries from the waste contractor.
Concrete	≈ 65% of total volume		
Tiles	≈ 5% of total volume		
Timber	≈ 5% of total volume		
Plasterboard	≈ 15% of total volume		
Glass	≈ 1% of total volume (breakage only)		
Metal	≈ 5% of total volume		
Carpet	≈ 1% of total volume		
Domestic General Waste	Typical domestic waste generated from trades on site.	Bins	Regular municipal waste streams generated through activities of trades staff on site. Collection provisions through council or approved and licensed private contractor.
Domestic Commingles			
Bulk cardboard/paper waste (equipment packaging)			

5.5.2 Signage

Waste storage areas and bins shall be clearly marked and signed with industry standard signage, or equivalent. Skips bins are to be labelled appropriately on all sides so as to clearly identify the waste type to be disposed into each bin.

5.6 Waste Collection

Waste collection will be undertaken by private collection contractors on an as-required basis. Vehicle sizes and onsite access will be in accordance with the Construction Traffic Management Plan.

The principal contractor will be responsible for positioning waste stockpiles/bin/skips throughout the site such that collections can be readily undertaken. Urbis anticipate that collection vehicles will generally be undertaken by Heavy Rigid Vehicles (12.5m length, 4.5m operating height) or smaller.

5.7 Consideration for Additional Waste Streams

The following list of waste streams have not been individually included within the waste stream separation but rather are a suggestion of streams that can be found in construction and demolition, and its separation will increase the diversion from landfill:

- **Packaging Waste Streams:** Packaging waste will be produced during material procurement and consumption. These streams will be managed separately from construction waste and collected by appropriately licensed private contractors.
- **Domestic Waste Streams:** Domestic waste generated by onsite trades staff will be collected separately from demolition waste. Collection will be managed either via council services (pending negotiation) or licensed private contractors.
- **Hazardous Waste Streams:** Chemical and hazardous waste will be handled, stored, and collected in accordance with relevant standards, with access limited to authorised personnel. This report does not address the management of hazardous/chemical waste—refer to the JBS&G Detailed Site Investigation Report for details on expected materials management.
- **Excavation Waste:** This type of waste includes a mix of soil, concrete, metal and timber pending on the soil composition. Its early separation per identified stream is key to, ideally, reuse on site or to stockpile cleaner material that is to be accepted by resource recovery facilities.

5.8 Roles and Responsibilities

5.8.1 Stakeholder Roles and Responsibilities

Implementation of this C&D Waste Management Plan will be the responsibility of the Construction Contractor; however, site staff are responsible for always ensuring their individual compliance.

5.8.2 Contractors and Suppliers

A listing of contractors and equipment suppliers is provided below for your references. You are not obligated to procure goods or services from these companies. This is not, nor is it intended to be, a complete list of available suppliers. Urbis does not warrant (or make responsibilities for) the goods and services provided by these suppliers.

Table 28 – Contractors and Supplier list

Service Type	Contractor / Supplier Name	Phone	Website
Private Waste Collectors (C&D Waste)	Bingo Bins	1300 424 646	www.bingoindustries.com.au
	Transwaste Skips	(02) 9746 8333	www.transwaste.com.au
	Brown Brothers Skip Bins	(02) 9999 6466	www.brownbrosbins.com.au
	Cobra Waste Solutions	1300 484 448	www.cobrawaste.com.au
Offsite Recycling Facilities	Wingecarribee Resource Recovery Centre	(02) 4868 0888	www.wsc.nsw.com.au
	Cleanaway Rockdale Resource Recovery Centre	0286454304	www.cleanaway.com.au
	Sell & Parker Metal Recycling	0417 227 677	www.sellparker.com
	Bingo Recycling Centre, Kembla Grange	1300 424 646	www.bingoindustries.com.au
	SCE Recycling, Warrawong	(02) 4274 9077	www.sce-aust.com

5.9 Pollution Prevention

Site staff and contractors are responsible for minimising the dispersion of litter and preventing stormwater pollution. **The Construction Management Plan and subsequent detailed waste management plan will include pollution control measures to match the site context.**

The following actions are recommended:

- **Promote Appropriate Waste Disposal:** Ensure all waste is placed in the correct bins and encourage staff and contractors to consistently use designated waste disposal points.
- **Prevent Overfilling and Secure Bins:** Avoid overfilling waste bins and keep lids closed where applicable to prevent windblown litter and rainwater ingress.
- **Prevent Dumping and Unauthorised Use:** Monitor waste areas to deter illegal dumping and unauthorised access or use of waste storage facilities.
- **Manage Spillage During Collection:** Require waste collection contractors to clean up any spillage that occurs during the emptying or transportation of bins.

By implementing these measures, the site can significantly reduce the risk of litter dispersion and stormwater pollution, supporting compliance with environmental management requirements.

6

Standards, Compliance and Equipment

Following sections details on best practice waste management methodology, standards required for waste rooms and equipment details.

6 Standards and Equipment

6.1 Bin Supplier and Colours

All bins and equipment mentioned in this WMP will be provided in alignment with Section 7.2 of this report.

The below bin colours are specified by Australian Standard AS4123.7 2006, however due to the private nature of the collection, these are only recommendations and are not mandatory:

- Garbage (general waste) bins shall have red lids with dark green or black body.
- Recycle bins shall have yellow lids with dark green or black body.
- Cardboard bins shall have blue lids with blue body.
- Organics bins shall have maroon lids with dark green or black body.

Private collection contractors often supply their own bins for collection.

6.2 Signage

Waste drop-off areas and bins will be clearly marked and signed with the approved City of Sydney signage, or equivalent, examples of which are provided in Figure 8. Staff / cleaners will be instructed by building management to adhere to these requirements.



Figure 8 - Example of City of Sydney Signage

6.3 Ventilation

Waste Room areas ventilation is provided in accordance with Australian Standard AS1668.

6.4 Bin Washing

An appropriately drained wash down area will be provided within each of the waste areas for each component of the development, in which each bin is to be regularly washed by building management (or equivalent). Bin washing area or bin wash bays must discharge to a bucket trap.

Alternatively, a third-party bin washing service may be engaged to perform regular washing of bins. Bin washing suppliers must retain all waste water to within their washing apparatus and not impact on the drainage provisions of the site.

6.5 Noise Reduction

All waste areas shall meet BCA and AS2107 acoustic requirements as appropriate with operational hours and collection times assigned to minimise acoustic impact on surrounding premises.

6.6 Vermin Prevention

All waste areas are enclosed and kept clean for prevention of vermin ingress. Regular washing of areas and bins will occur.

7 Waste Equipment Details

7.1 Typical Equipment Dimensions

The below table details the typical waste equipment dimensions.

Table 29 – Typical Storage Unit Dimensions

Unit	Width (mm)	Depth (mm)	Height (mm)
1no. 3 x 1100L Bin Linear Track	1,520	5,740	2,400
1no. 2 x 1100L Bin Linear Track	1,520	3,450	2,400
1100 Litre Bin	1,370	1,245	1,470
660 Litre Bin	1,370	850	1,250
240L Bin	560	735	1100
120 Litre Bin	485	735	940
Baler (Based on Bramidan B50 equipment)	1,860	1,055	3,180
B50 Bales	1,200	800	1,200
Macerator Unit	1,000	780	1,200
3,000L Tank	2,000	1,500	2,000
Bin Tug	1,966	1,010	1,500

7.2 High Level Purchasing Schedule

Table 30 list the equipment supply required for the core waste streams as per the conditions proposed within this report.

All service requirements noted are indicative only and must be confirmed with the supplier prior to commencement of construction.

Table 30 – Equipment Supply Schedule

Item	Quantity	Typical Services Requirement (s)*	Supplier
B50 Baler (Bramidan)	1 x Cardboard and Soft Plastics (commercial waste room)	<u>Power:</u> 3-phase, 415V 16A Power	Private Supplier (Waste Initiatives or equivalent)
Linear Conveyor Systems	6 x for end of chutes	<u>Power Supply:</u> 1-phase, 3-phase or battery.	Private Supplier (Wastech or equivalent)
Macerator Units	1 x at commercial waste room	<u>Power Supply:</u> 1-Phase 20Amp	Private Supplier (Pulpmaster or equivalent)

		<u>Water Requirements:</u> Cold Water <u>Sludge Connection:</u> 70mm pipe	
		<u>Power Supply:</u> 1-Phase 20Amp <u>Water Requirements:</u> Cold Water <u>Sludge Connection:</u> 70mm pipe <u>Collection point</u>	
3,000L Sludge Tank	1 x at commercial waste room		Private Supplier (Vikings Plastic or equivalent)
1100L Bin	14 x Garbage 56 x Recycling	Nil	Council (SULO or equivalent)
1100L Bin	18 x Garbage 16 x Recycling	Nil	Private Supplier (SULO or equivalent)
660L Bin	2 x Soft Plastics	Nil	Private Supplier (SULO or equivalent)
240L Bin	21 x Cleaning and Transfer of material 2 x E-waste 2 x Charity	Nil	Private Supplier (SULO or equivalent)
120L Bin	12 x Organics	Nil	Council (SULO or equivalent)
120L Bin	12 x Cleaning and Transfer of material	Nil	Private Supplier (SULO or equivalent)
<i>* Services requirements are indicative only and must be confirmed with the manufacturer prior to the commencement of construction.</i>			

7.3 Supplier Contact information

A complimentary listing of contractors and equipment suppliers is provided in Table 31 below for your reference. Urbis is not associated with these suppliers, and there is no obligation to procure goods or services from these companies. This is not intended to be a complete list of available suppliers. Urbis does not warrant or make representations regarding the goods or services provided by these suppliers.

Table 31 – Supplier Contact List

Service Type	Contractor/Supplier Name	Phone	Website
Private Waste Collectors	Premier Waste Management PTY LTD	1300 219 001	www.premierwaste.com.au
	SUEZ Environment	13 13 35	www.sita.com.au
	Cleanaway	13 13 39	www.cleanaway.com.au
	Veolia	132 955	www.veolia.com
Equipment Suppliers	Wastech Engineering (Compactors, Bin Lifters)	(03) 8787 1600	www.wastech.com.au
	Sulo Australia (Bins)	1300 364 388	www.sulo.com.au
	Sitecraft (Bin Tug Equipment)	1300 363 152	www.sitecraft.net.au
Bin Washing Services	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	Kerbside Clean-A-Bin	(03) 9830 7381	www.kerbsidecleanabin-srp.com.au
	Calcorp Services	1800 225 267	www.calcorpservices.com.au
	WBCM Environmental Australia	1800 800 621	www.wbcm-aust.com.au
E-Waste Collection Services	TechCollect	1300 229 837	www.techcollect.com.au
	Mobile Muster	1800 249 113	www.mobilemuster.com.au
	ToxFree	1300 869 373	www.toxfree.com.au
Return and Earn Collection	Return and Earn	1800290691	www.returnandearn.org.au
	Return It	1300 237 010	www.returnit.com.au

Disclaimer

This report is dated 3 August 2026 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Mirvac (**Instructing Party**) for the purpose of Waste Management Plan for Mirvac Green Square – Sites 7, 17 and 18 (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

Appendix A – Drawings

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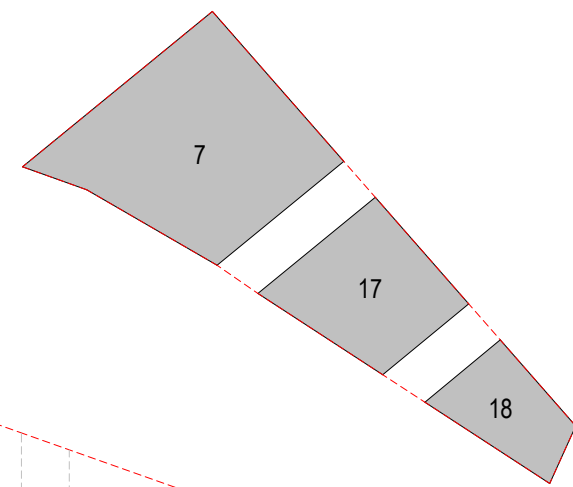
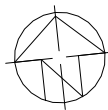
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BICYCLE PARKING SCHEDULE				
LEVEL	RESIDENTIAL	STAFF	VISITOR	TOTAL
BASEMENT	157	6	0	163
GROUND	0	8	32	40
LEVEL 1	2	0	0	2
LEVEL 2	2	0	0	2
LEVEL 3	2	0	0	2
LEVEL 4	5	0	0	5
TOTAL	168	14	32	214

Key plan



NOTES

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960A BOURKE STREET, ZETLAND NSW 2017

title:

PRECINCT GROUND

drawing no:

DA-0-101

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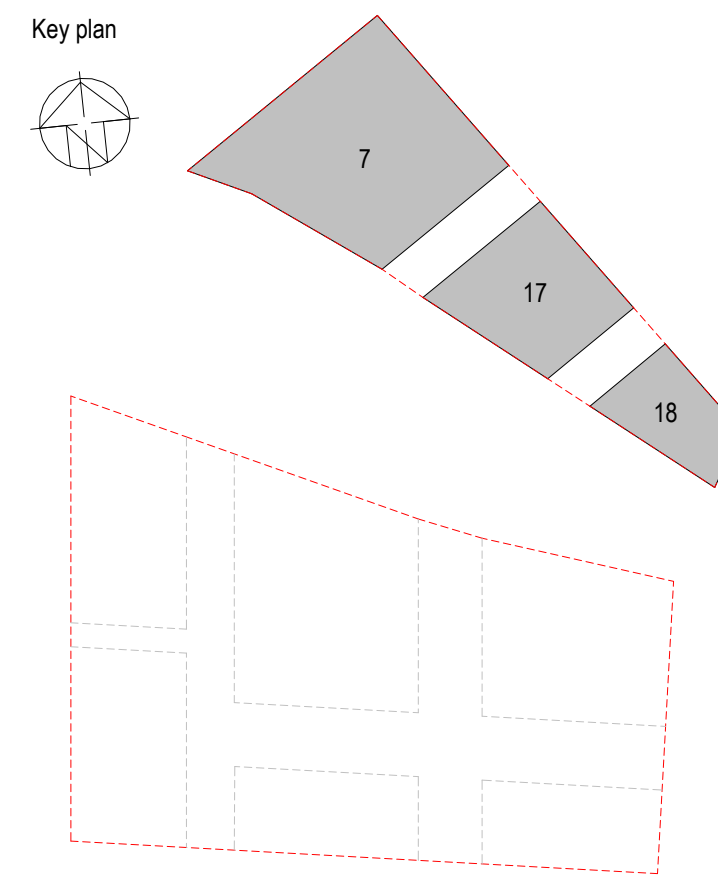
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LEVEL 2	1
LEVEL 3	1
LEVEL 4	1
TOTAL	4

18 EBSWORTH STREET

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	STANDARD	ACCESSIBLE	TANDEM	CARSHARE	
LEVEL 1	14	2	0	2	18
LEVEL 2	16	2	0	0	18
LEVEL 3	17	0	0	0	17
LEVEL 4	15	0	6	0	21
TOTALS	62	4	6	2	74

MOTORCYCLE PARKING SCHEDULE	
LEVEL	TOTAL
LEVEL 1	1
LEVEL 2	1
LEVEL 3	1
LEVEL 4	1
TOTAL	4

BICYCLE PARKING SCHEDULE				
LEVEL	RESIDENTIAL	STAFF	VISITOR	TOTAL
BASEMENT	157	6	0	163
GROUND	0	8	32	40
LEVEL 1	2	0	0	2
LEVEL 2	2	0	0	2
LEVEL 3	2	0	0	2
LEVEL 4	5	0	0	5
TOTAL	168	14	32	214

18 EBSWORTH STREET

22 EBSWORTH STREET

32 EBSWORTH STREET

16 ZETLAND AVENUE

EBSWORTH STREET

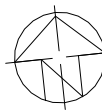
PAUL STREET

TWEED PLACE

INFINITY
8 TWEED PLACE

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Key plan



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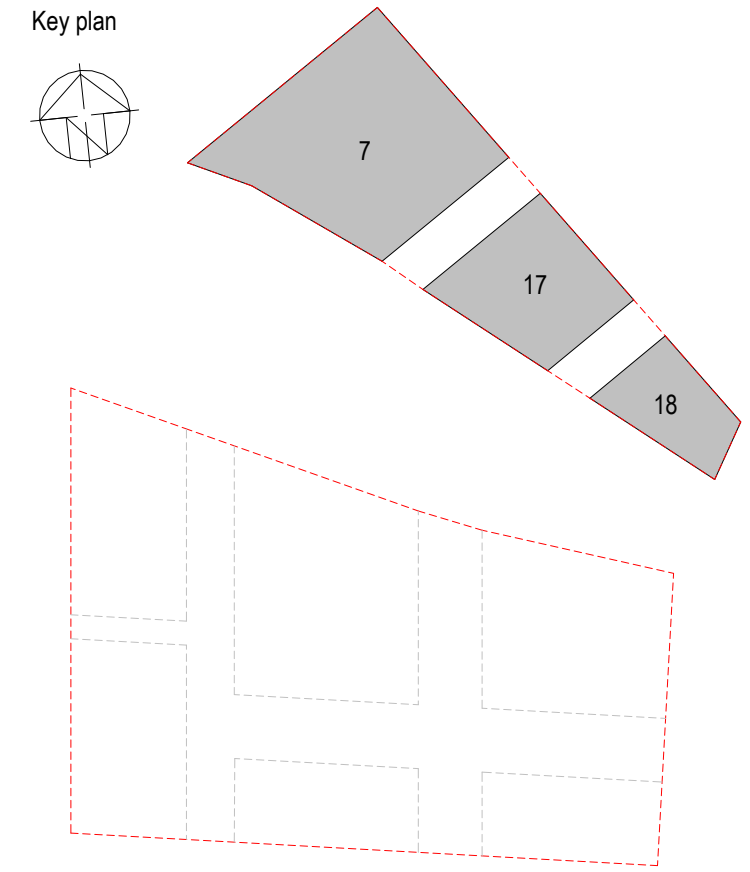
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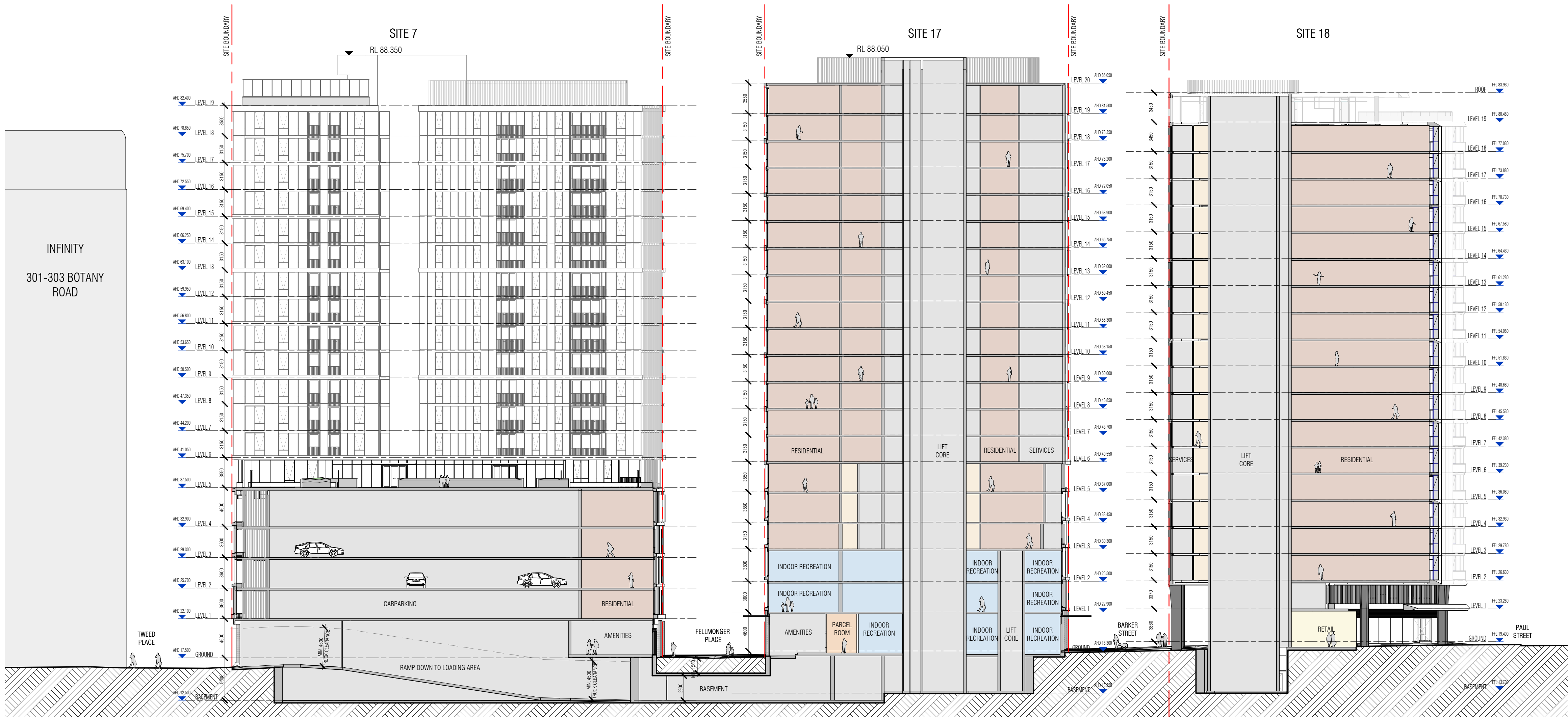
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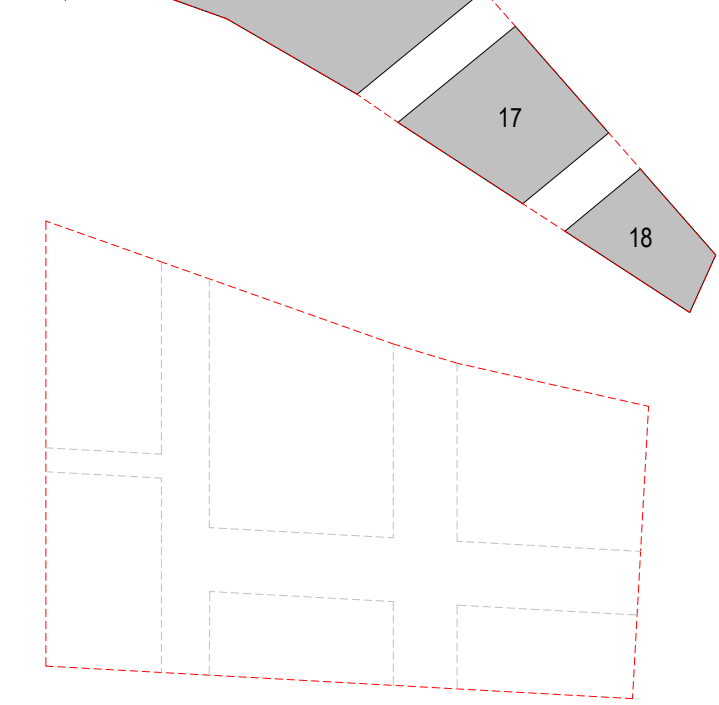
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Key plan



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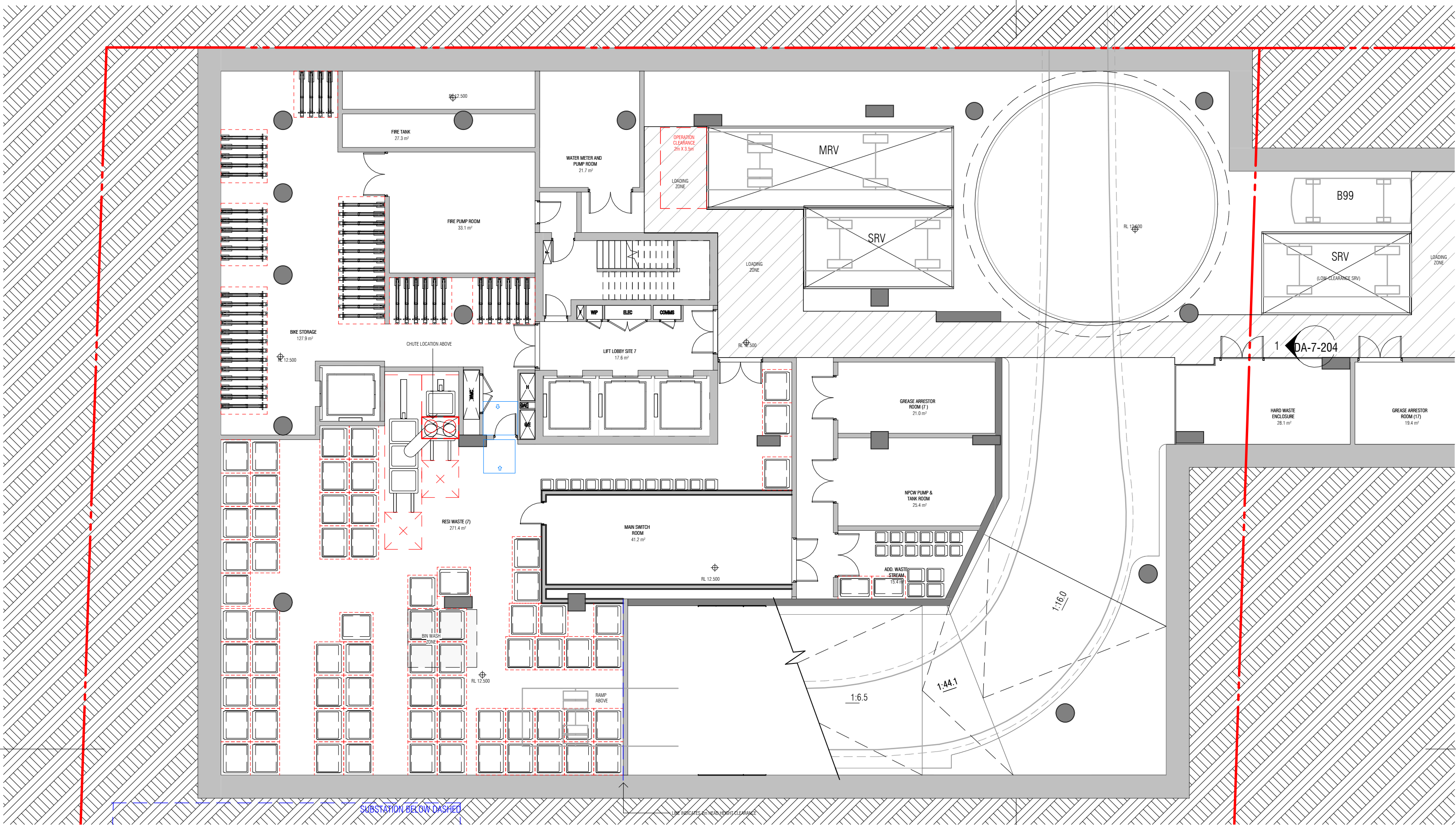
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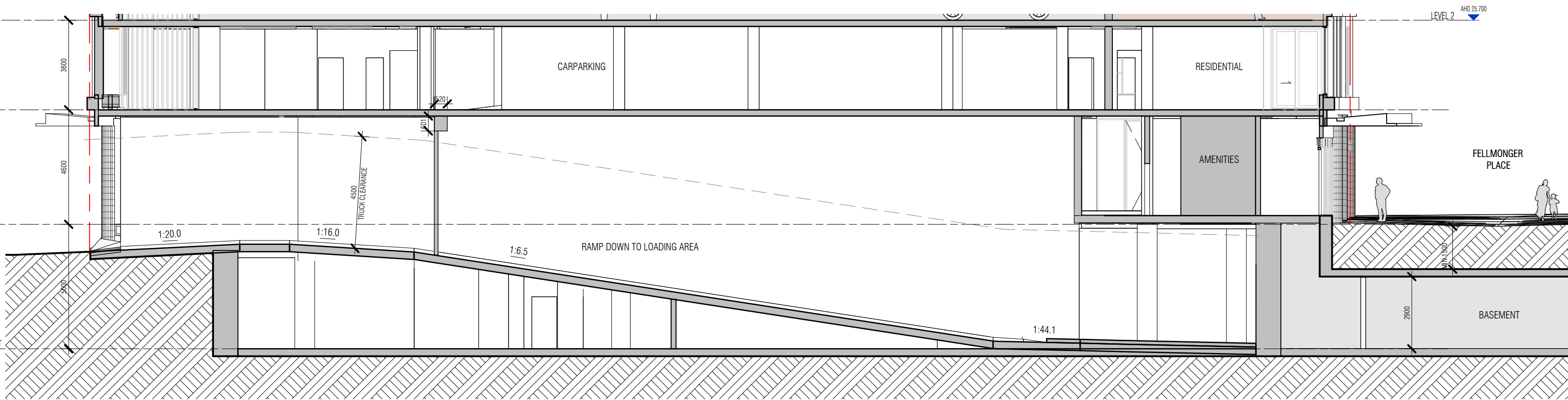
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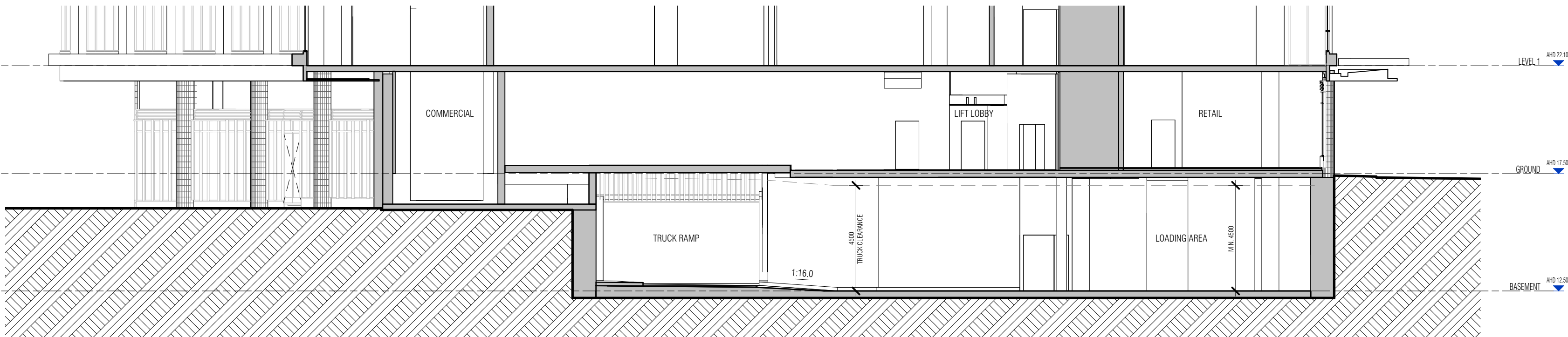
300mm



3 BASEMENT B7 PLAN

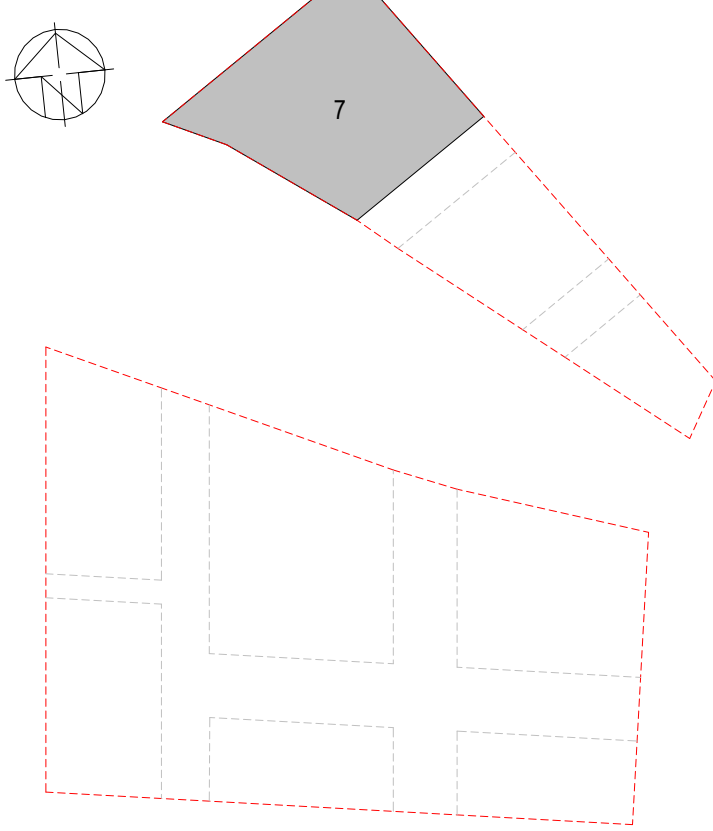


1 LOADING DOCK RAMP SECTION 1



2 LOADING DOCK RAMP SECTION 2

Key plan



NOTES

DRAWINGS TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY. SEEK CLARIFICATION OF INCONSISTENCIES / CONFLICTS.

22/07/2025	A	ISSUED FOR RTS SUBMISSION
date	rev	amendment
* For previous versions refer to Document Control history		

Client



Design Architect



WWW.FKAUSTRALIA.COM
LVL 100 GEORGE STREET, SYDNEY
NEW SOUTH WALES 2000 AUSTRALIA
TELEPHONE: +61 2 9219 7000
FACSIMILE: +61 2 9219 7001
E-MAIL: INFO@FKAUSTRALIA.COM
GPO BOX 11144
NSW 1585

project:
MIRVAC GREEN SQUARE - SITES 7, 17 AND 18
960A BOURKE STREET, ZETLAND NSW 2017

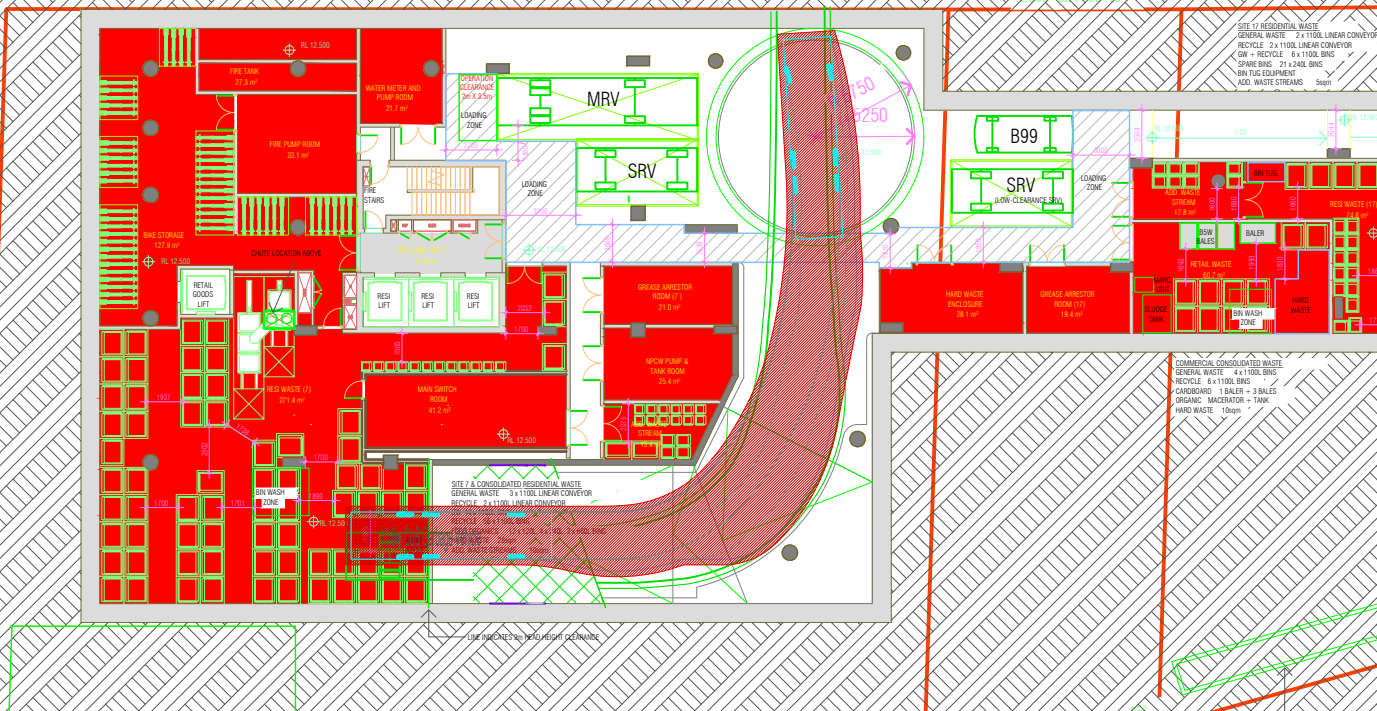
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LOADING DOCK RAMP SECTION

drawing no:	scale:
DA-7-260	1 : 150 @A1
rev:	date:
A	22/07/2025

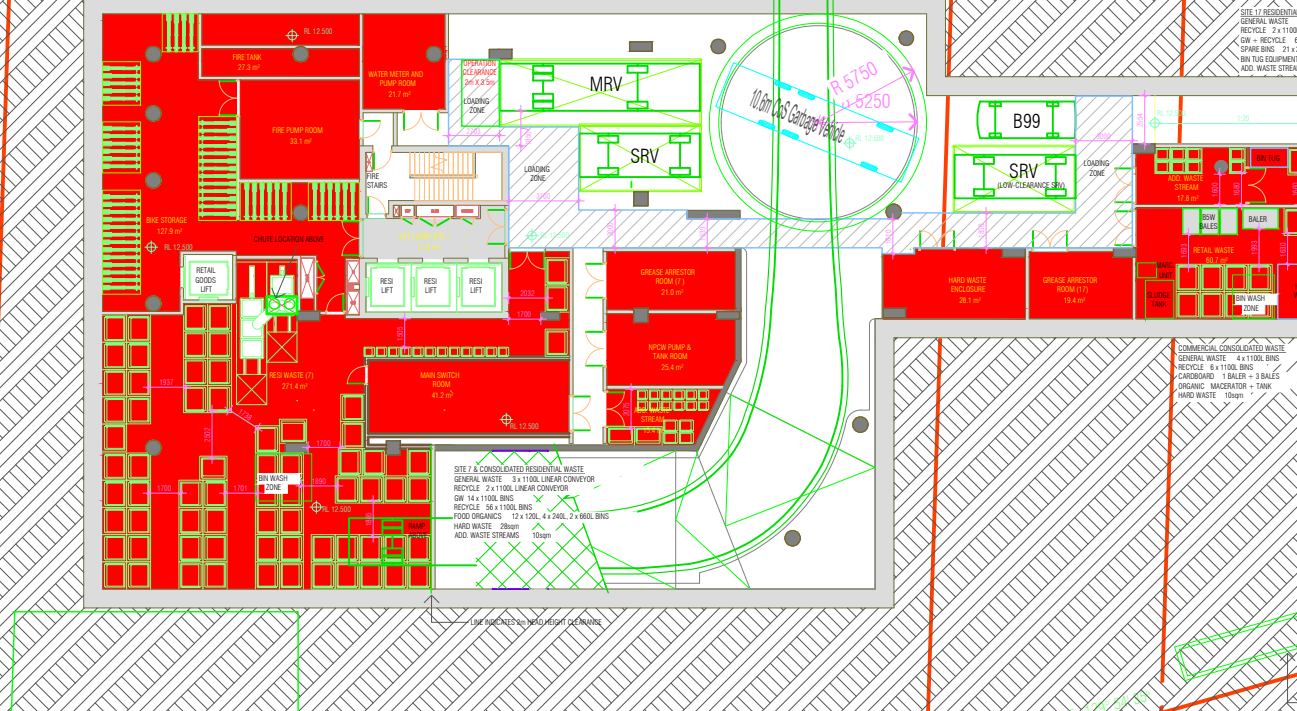
DRAWING COLOUR CODED - PRINT ALL COPIES ON COLOUR

Appendix B – Swept Paths

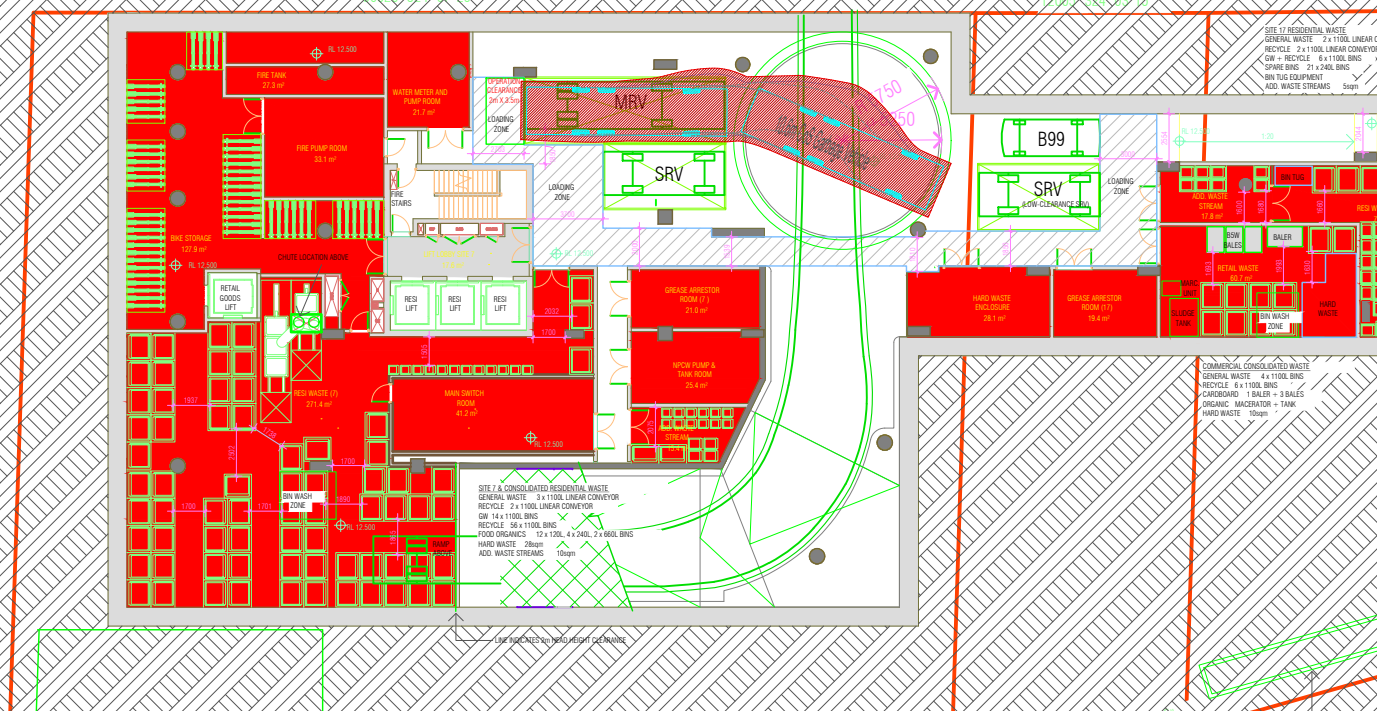
ENTRY MOVEMENT
10.6m WASTE TRUCK
DRIVES ONTO
TURNTABLE



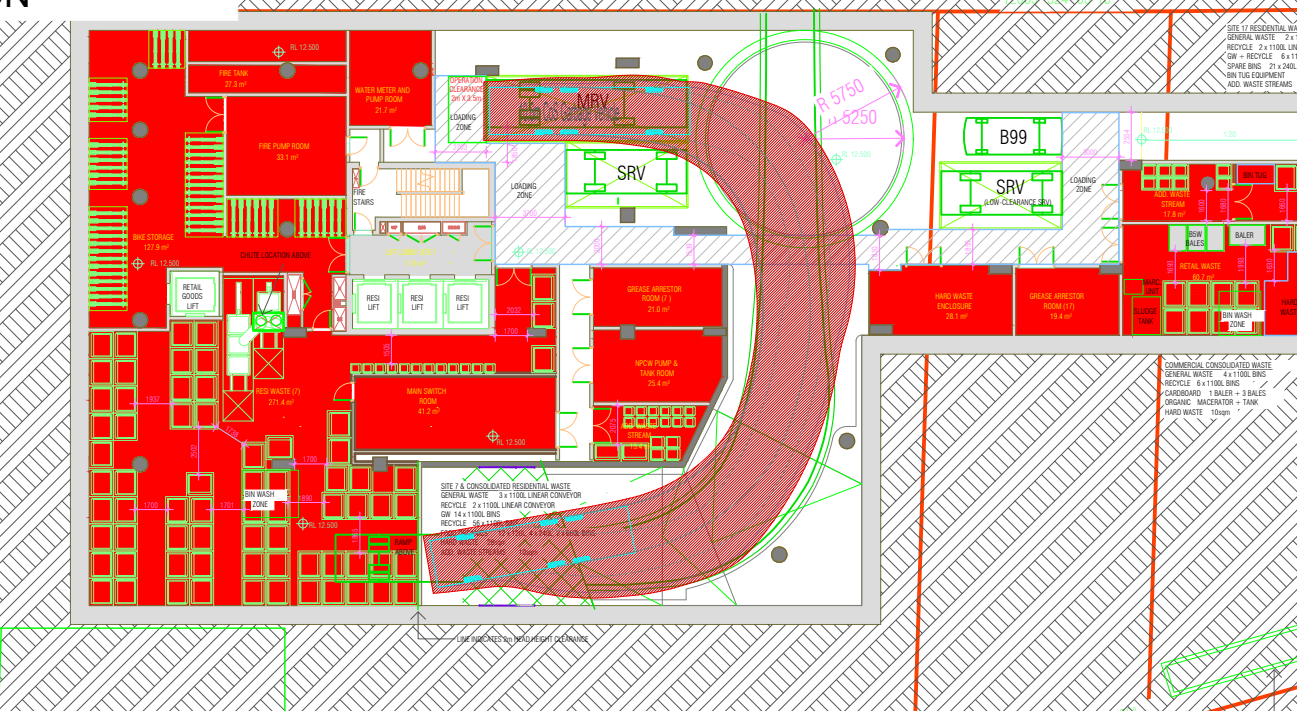
10.6M WASTE TRUCK
ROTATES ON
TURNTABLE



10.6M WASTE TRUCK
REVERSES INTO
LOADING BAY



10.6M WASTE TRUCK
EXITS SITE IN
FORWARD
DIRECTION



Drawing Prepared By



North



Swept Path Key

- Vehicle Wheel Path
- Vehicle Body Envelope
- 300mm Vehicle Clearance

Project

Greens Square BTR - Building 7, 17 & 18

Project No
25.196

Drawing Title

Basement Loading Curved Ramp
10.6 Metre City of Sydney Waste Truck
Loading Bay Entry and Exit Movements

Sheet Status

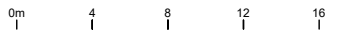
NOT FOR CONSTRUCTION

Drawing No.

001

Drawn By
HC

Scale
1:400 @ A3

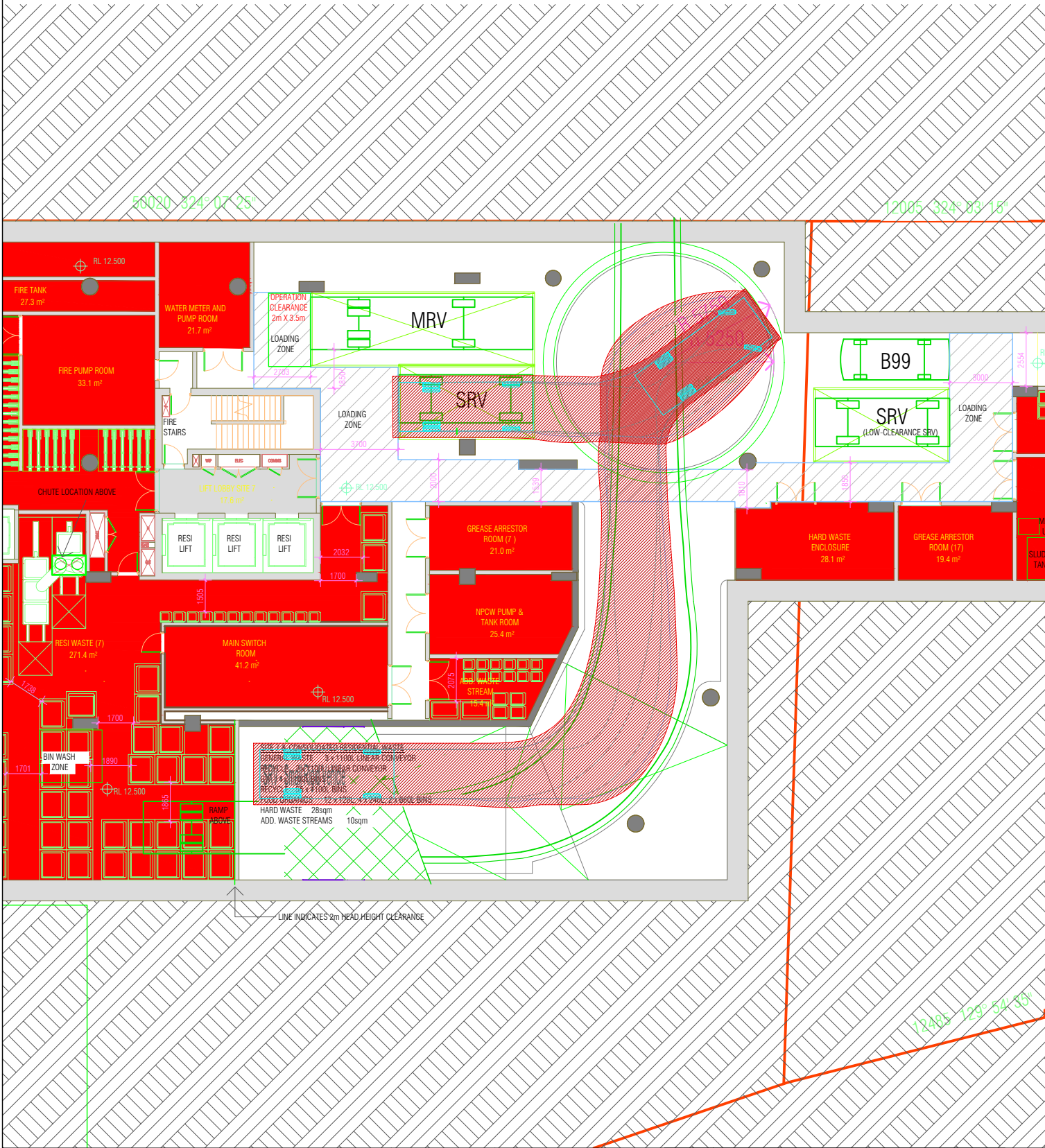


Revision No.

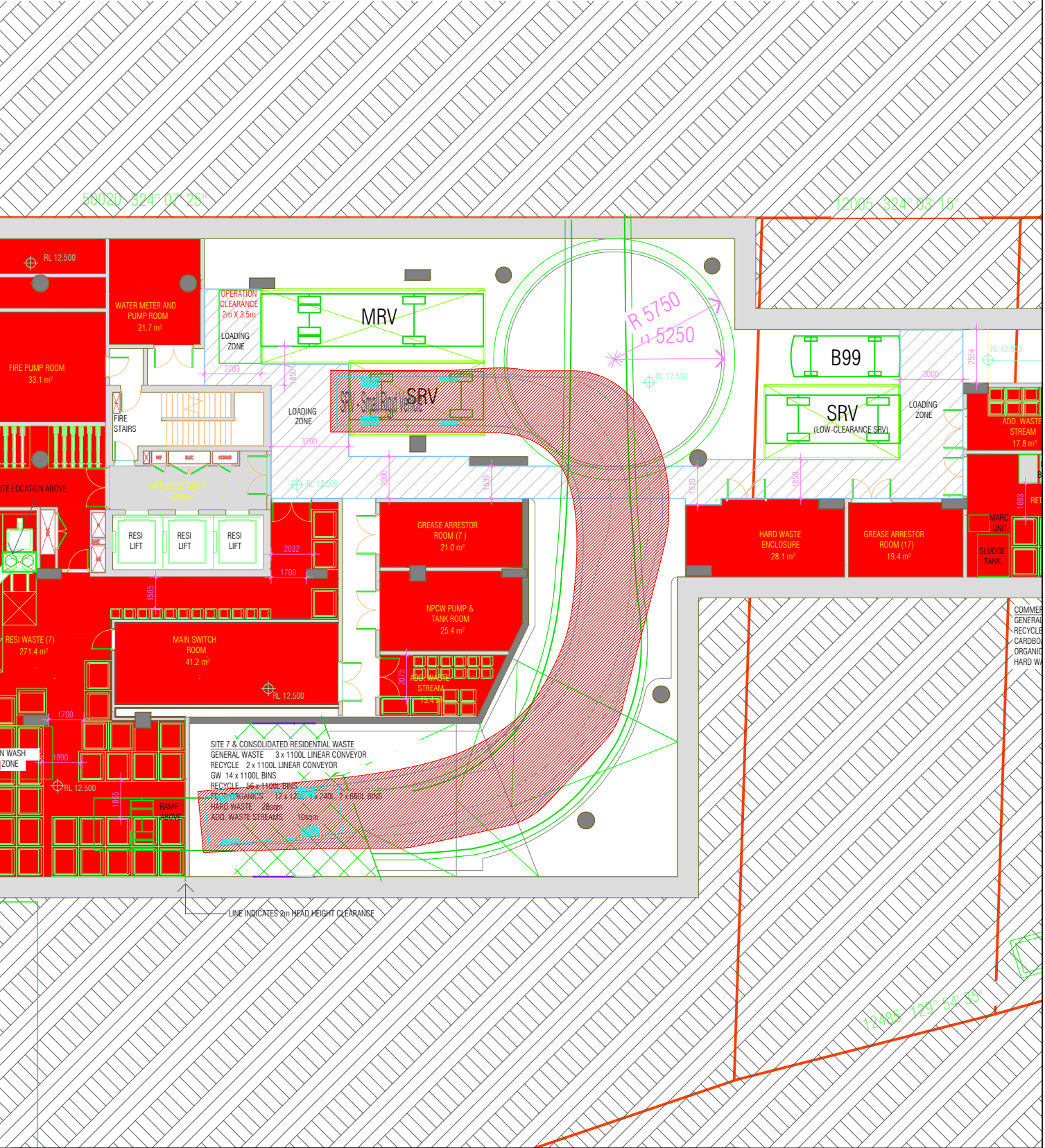
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Date
29/07/2026

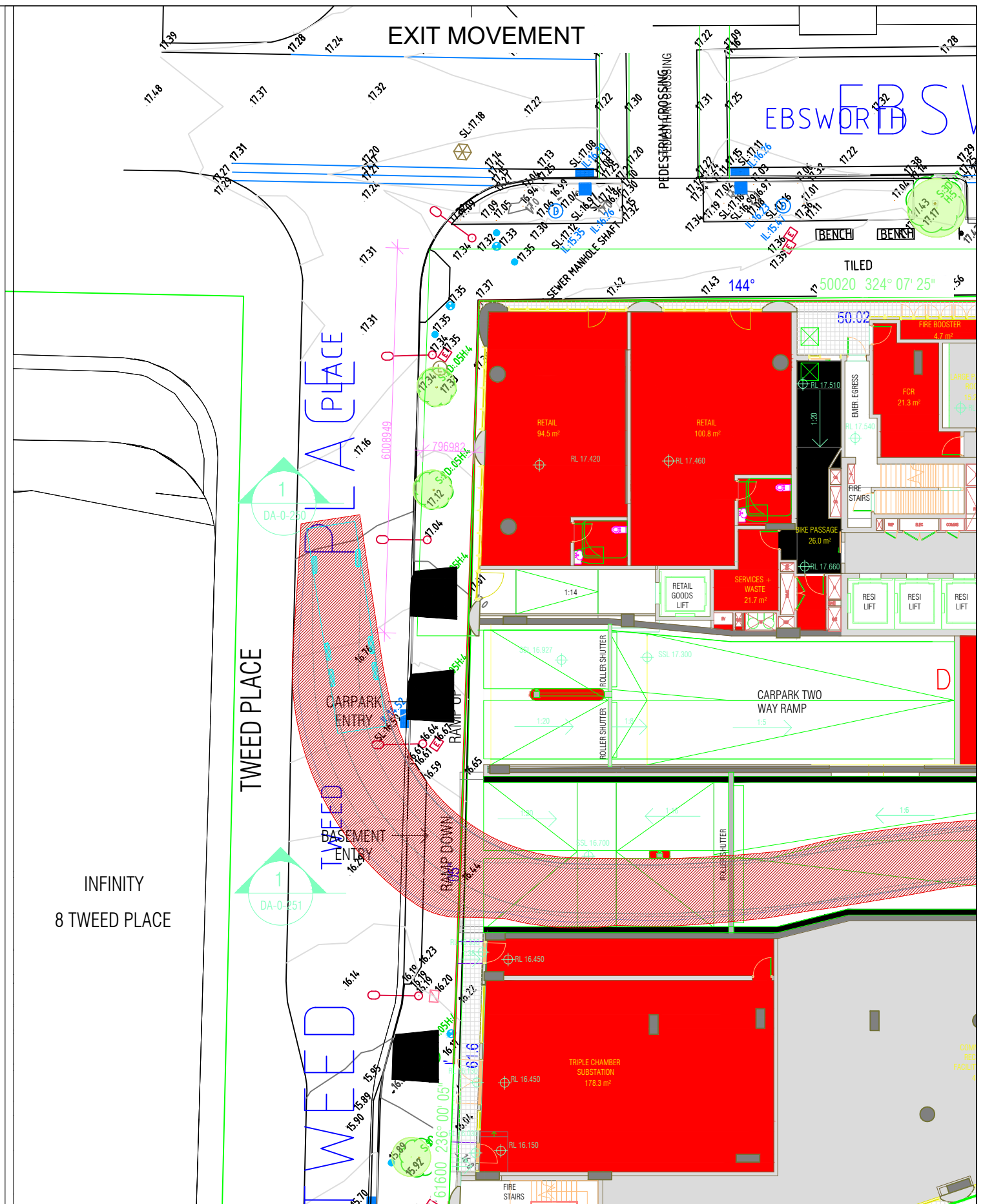
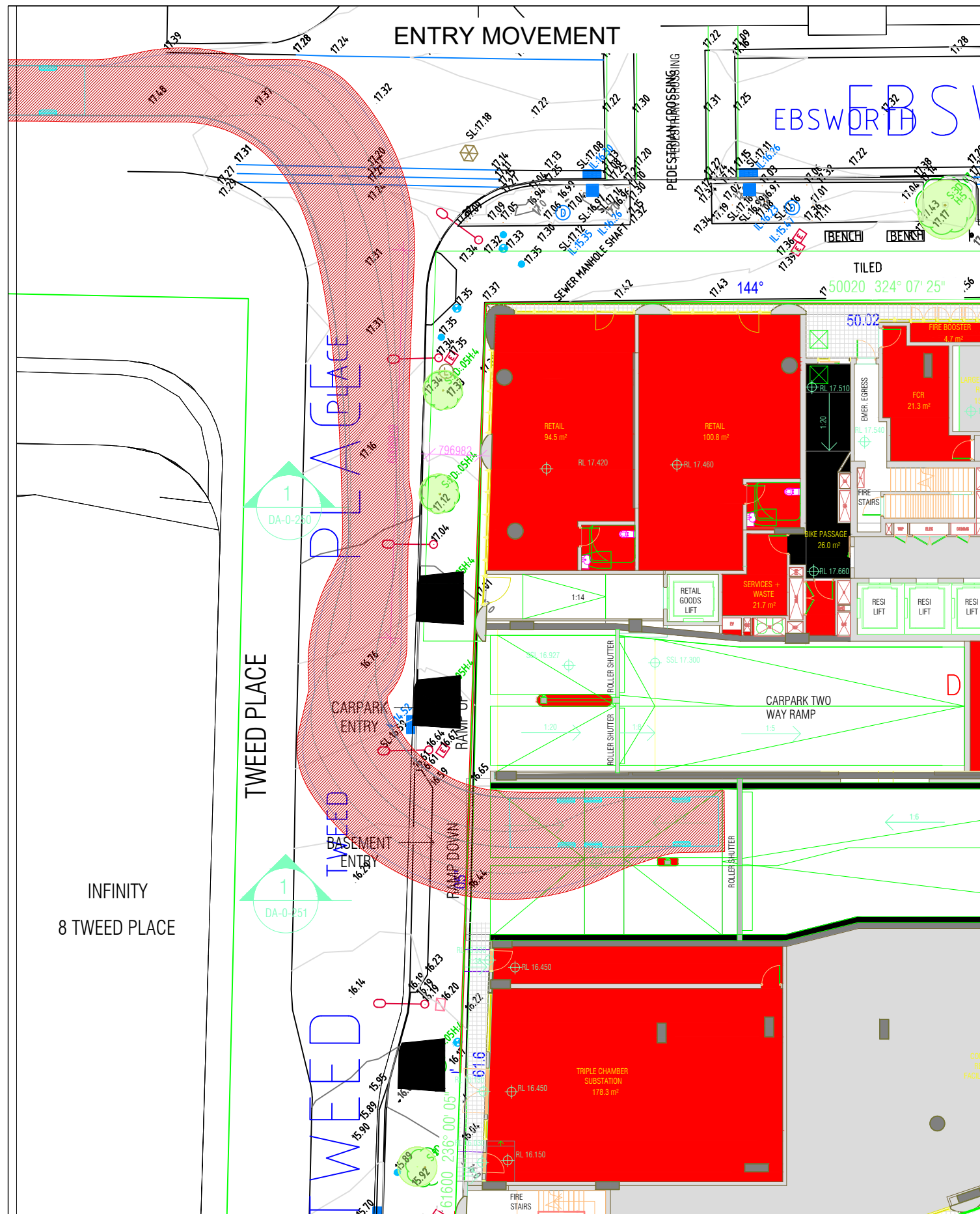
ENTRY MOVEMENT



EXIT MOVEMENT



Drawing Prepared By 	North 	Swept Path Key ----- Vehicle Wheel Path ----- Vehicle Body Envelope ----- 300mm Vehicle Clearance	Project Greens Square BTR - Building 7, 17 & 18	Drawing Title Basement Loading Curved Ramp 6.4m SRV Design Vehicle Loading Bay Entry and Exit Movements	Drawing No. 002 Drawn By HC	Revision No. - Date 29/07/2026
			Project No 25.196	Sheet Status NOT FOR CONSTRUCTION	Scale 1:250 @ A3 	



Appendix C – City of Sydney Compliance

Appendix

Waste and Recycling Management Plan forms

- A Construction Waste and Recycling Management Plan A-2**
- B Demolition Waste and Recycling Management Plan A-4**
- C Operational Waste and Recycling Management Plan A-6**

A. Construction Waste and Recycling Management Plan

Refer to the Construction and Demolition Waste Requirements.

Site Address:		DA Number:	
Will you use Site Cleaners?		☐ Yes, for some work ☐ Yes, for all work ☐ No	
		Estimated total volume or weight	
Please supply details of site cleaners used		ABN Number Name Phone Mobile	
All Excavation Material (including from Swimming Pool excavations)		☐ Less than 10 m ³ ☐ More than 10 m ³ (if more than 10 m ³ , specify estimated volume below) 	
		☐ Re-use on-site ☐ Re-use off site ☐ Landfill Disposal	
Address if re-used off site			
Name and Address of licensed landfill			

			How will you manage this waste?				
Type of Material	Less than 10 m ³	Please specify estimated volume if more than 10 m ³	Re-use on-site	Recycle (separate collection from site)	Recycle (off-site separation)	Landfill	% of material diverted from landfill
Bricks	☐		☐	☐	☐	☐	%
Concrete	☐		☐	☐	☐	☐	%
Tiles	☐		☐	☐	☐	☐	%
Timber (clean)	☐		☐	☐	☐	☐	%
Timber (treated)	☐		☐	☐	☐	☐	%
Plasterboard	☐		☐	☐	☐	☐	%
Glass	☐		☐	☐	☐	☐	%
Ceiling tiles	☐		☐	☐	☐	☐	%
Metals (ferrous)	☐		☐	☐	☐	☐	%
Metals (non-ferrous)	☐		☐	☐	☐	☐	%
Carpet	☐		☐	☐	☐	☐	%
Electronic waste	☐		☐	☐	☐	☐	%
Total diversion of waste from landfill (needs to be minimum 80% diversion):							%

Principal Off-Site Recycler/s	Off-Site Recycler's Primary Markets for Materials (for residential developments over three storeys and all non-residential developments)	Principal Licensed Landfill Site

Declaration

Name of applicant (please print):

Signature of applicant: Date:

Refer to Section 5.4.2 (page 40) of this report for further details.

B. Demolition Waste and Recycling Management Plan

Refer to the Construction and Demolition Waste Requirements.

Site Address:		DA Number:	
Does demolition contain asbestos?		☐ Yes ☐ No	
All asbestos waste is to be managed in accordance with provisions of the NSW Work Health and Safety Regulation 2011 and the City of Sydney Asbestos Policy.		☐ Tick ☒ if under 10 m ² ☐ Tick ☒ if over 10 m ²	
WorkCover Licence No. and Class			
Demolition contractor details			
Licensed landfill			

General demolition waste

Type of Material	Less than 10 m ³	Please specify estimated volumes if more than 10 m ³	How will you manage this waste?				% of material diverted from landfill
			Re-use on-site	Recycle (separate collection from site)	Recycle (off-site separation)	Landfill	
Bricks	☐		☐	☐	☐	☐	%
Concrete	☐		☐	☐	☐	☐	%
Tiles	☐		☐	☐	☐	☐	%
Timber (clean)	☐		☐	☐	☐	☐	%
Timber (treated)	☐		☐	☐	☐	☐	%
Plasterboard	☐		☐	☐	☐	☐	%
Metals (ferrous)	☐		☐	☐	☐	☐	%
Metals (non-ferrous)	☐		☐	☐	☐	☐	%
Mixed recycling	☐		☐	☐	☐	☐	%
Total diversion of waste from landfill (needs to be minimum 80% diversion):							%

Principal Off-Site Recycler/s	Off-Site Recycler's Primary Markets for Materials (for residential developments over three storeys and all non-residential developments)	Principal Licensed Landfill Site

Declaration

Name of applicant (please print):

Signature of applicant: Date:

Refer to Section 5.4.1 (page 40) of this report for further details.

C. Operational Waste and Recycling Management Plan

Site Address:

DA Number:

- ☐ Residential Only Development
- ☐ Mixed Residential/Non-Residential Development

Generation of waste

Refer to the Waste Generation rates in Guidelines.

RESIDENTIAL MULTI-UNIT Number of dwellings	Waste generation/ week (100L/dwelling)	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ week (120L/dwelling)	Nominated recycling bin size (L)	Total number of bins estimated			
e.g. 6	600	240	3	720	240	3			
e.g. 20	2000	660	3	2400	660	4			

RESIDENTIAL SINGLE DWELLINGS Number of dwellings	Waste generation/ week (100L/dwelling)	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ week (120L/dwelling)	Nominated recycling bin size (L)	Total number of bins estimated	Food waste generation/ week (for single unit dwellings only)	Nominated food waste bin size (L) (for single unit dwellings only)	Total number of bins estimated
e.g. 1	100	120	1	120	120	1	40	60	1

Refer to Section 3.2 (Page 24) of this report for further details.

Refer to Section 4.2 (Page 33) of this report for further details.

NON-RESIDENTIAL
Calculate generation based on premises type and area

	Waste generation/ L/day	Nominated waste bin size (L)	Total number of bins estimated	Recycling generation/ L/day	Nominated recycling storage bin size (L)	Total number of bins estimated	Food waste generation/ L/day	Nominated food waste bin size (L)	Total number of bins estimated
e.g Hotel (11,000 m ²)	2200	660	4	2750	660	5	1650	660	3
e.g Restaurant (200 m ²)	200	240	1	1000	660	1	200	240	1

General requirements

All multi-unit residential and non-residential development is to address the following.

Refer to the General Requirements section in Guidelines.

1	Have the Guidelines been considered in conjunction with the City's <i>Waste Management Local Approvals Policy</i> (found at www.cityofsydney.nsw.gov.au)?		☐ Yes	☐ No
	Is there a waste and recycling storage area provided?		☐ Yes	☐ No
	Is the waste and recycling areas located in a position that is convenient for both users and waste collection staff?		☐ Yes	☐ No
	Location of waste and recycling storage areas: (e.g. level 2)	Distance (m) from the waste and recycling storage area to the collection point	Size of waste and recycling storage areas (m ²)	
	What is the total area of bin storage provided?			(m ²)
	Is the layout of the waste and recycling storage area designed to encourage easy recycling and separation of different waste types by all users?		☐ Yes	☐ No
	What is the ceiling height of the waste and recycling storage area?			m
	Have you submitted a detailed plan of the waste and recycling storage area, together with the nominated collection point and access pathway marked?		☐ Yes	☐ No
	Please include name and location of relevant drawings:			
2	Is there sufficient space provided for the estimated general waste and recycling bins PLUS handling?		☐ Yes	☐ No
	How much separate space is dedicated for storing bulky waste and problem waste?			m ²
	What type of storage space for bulky and problem waste has been allocated? (e.g. designated area, lockable cage, within waste and recycling storage room or other)			
	Is food waste or compostable material managed in any way? (tick the applicable management system/s below)		☐ Yes	☐ No
	- Suitable space available for composting and worm farming - On-site food waste processing system - Other (please specify)		☐ ☐ System type:	

3	Is the collection point sufficiently accessible by collection operators?	☐ Yes	☐ No
	What is the maximum manual handling distance between the storage point and the collection point for bins?	m	
	Are any collection and vehicle access points located adjacent to a habitable room?	☐ Yes	☐ No
	What is the maximum grade of the path for wheeling bins between a storage point and the collection point?	:	
	Are all externally located on-site collection points constructed within 15 metres from the property boundary?	☐ Yes	☐ No
	What is the clearance height allowed for collection vehicles to enter the site for collection?	m	
	Is entry and exit of a collection vehicle from the site in a forward direction?	☐ Yes	☐ No
4	Can collection vehicles service the development with minimal reversing?	☐ Yes	☐ No
	Have the following allowances been made for all collection points?	☐ Yes	☐ No
	- Vehicle access for collection and loading will provide for a maximum grade of 1:20 for the first 6 metres from the street, then a maximum of 1:8 with a transition of 1:12 for 4 metres at the lower end. - A minimum width of 3.6 metres - A minimum radius turning circle of 10.5 metres or provision for changing the facing direction.	☐ Yes	☐ No
	Who will be responsible for waste management (waste storage area management, cleaning, bin transfer, educating occupants etc.) for the development?		
	Will appropriate signage for waste storage areas and equipment (including bins) for effective waste management and safe handling be implemented where necessary?	☐ Yes	☐ No
4	Please provide an overview summary of the development's waste management system and arrangements, including a description of how occupants, cleaners and/or building management will use the waste management facilities and how waste will be stored, transported and collected. (This is to be consistent with the drawings attached. Please attach additional pages if more space required)		

Refer to Section 3 (Page 21) of this report for further residential waste details.
 Refer to Section 4 (Page 29) of this report for further commercial waste details.
 Refer to Appendix A for drawings and storage areas.
 Refer to Appendix B for Swept Path diagrams.

Multi-unit residential developments dwellings

All residential developments which shared waste and recycling bins are to address the following.

Refer to Multi-Unit Residential Developments Dwellings section in Guidelines.

1	Has space for at least two day's generation of waste and recycling been provided per unit?	☐ Yes	☐ No
	Is the waste and recycling storage area(s) easily accessible by all residents of the development?	☐ Yes	☐ No
	How far is the waste and recycling storage area from the farthest residential dwelling?	m	
	Are you requesting any additional infrastructure in the waste and recycling storage room (carousel, optic sensors, number of bins, automatic bin exchange, size)? <i>If yes, fill in the section below</i>	☐ Yes	☐ No
2	Please detail the type of additional infrastructure:		
	If a compactor is included, what is the proposed compaction ratio (it is not to exceed 2:1)?		
3	Will the development elect to have kerbside collection? (only applies to developments with less than 6 units that satisfy the requirements outlined in the General Requirements section)	☐ Yes	☐ No
	What type of problem waste will be dealt with in this development? (e.g. electronic waste, batteries, fluorescent tubes and mobile phones)		
	How much space in the waste and recycling storage area has been allocated for textile waste?	m ²	
	Will a chute system be utilised in the new development? If yes, will the chute system be a single (general waste) or dual system (two separate chutes for waste and recycling)? <i>If no, move onto question 5.</i>	☐ Yes ☐ single or ☐ dual ☐ No	
	Has the chute system been designed according to the relevant minimum manufacturing standard?	☐ Yes	☐ No
	What is the total maximum travel distance from any residential dwelling entry to a chute system on any given storey? (It is not to exceed 30 metres)	m	
	Has the chute system been designed and certified according to the relevant acoustic standards?	☐ Yes	☐ No

4	Is there a chute room on each habitable floor of a development with a chute system?	☐ Yes	☐ No
	Does the chute room include space for: - recycling MGBs (if a single chute system is used) - the chute inlet hopper - spare MGBs - large cardboard and/or bulky items to reduce the likelihood of blockages in chutes.	☐ Yes	☐ No
5	In which of the following ways will on-site collection of waste, recycling, textile waste and bulky items take place?		
	1 In the building's basement	☐ Yes	☐ No
	2 At grade within the building in a dedicated collection or loading bay	☐ Yes	☐ No
	3 At grade and off-street within a safe vehicular circulation system where, in all cases, vehicles will enter and exit the premises in a forward direction	☐ Yes	☐ No

Residential single dwellings

All single-dwelling houses, small-scale villas or townhouse-type developments with bins allocated to and managed at each individual dwelling is to address the following:

[Refer to Residential Single Dwellings section in Guidelines.](#)

1	Has space for at least two day's generation of waste, recycling and food waste been provided per dwelling?	☐ Yes	☐ No
	Has storage area for one each of council's specified waste bins been allocated per unit? (including general waste, recycling, food waste and garden organics)	☐ Yes	☐ No
	Has appropriate access between the waste and recycling storage area and kerbside collection point been allocated?	☐ Yes	☐ No
	Has sufficient space for the storage of bulky waste, textile waste and problem waste been allocated?	☐ Yes	☐ No

Non-residential developments

All new non-residential developments are to address the following.

Refer to Non-Residential Developments section in Guidelines.

1	How much space is dedicated for storing bulky waste and problem waste for recycling?	m ²
2	Dedicated space (in or attached to the waste and recycling storage area) is provided for the storage and recycling of food waste for collection	☐ Yes ☐ No
	How much space has been allocated for management of re-usable items (such as crates, pallets, kegs and fit-out waste)?	m
3	Have kitchens, office tearooms, service and food preparation areas been designed with dedicated space to collect and recycle food waste?	☐ Yes ☐ No
	Has secure space for the storage of liquid wastes been allocated (such as chemicals, paints, solvents, and motor and cooking oil)?	☐ Yes ☐ No
4	Will collection of non-residential waste take place inside the new development?	☐ Yes ☐ No
5	Will the site employ the use of a waste caretaker or cleaner for managing non-residential waste?	☐ Yes ☐ No
	Will the development employ on-site weighing of waste materials?	☐ Yes ☐ No
6	Has the 'Non-Residential Developments' section of the Guidelines been consulted for specific requirements of different non-residential occupancies at the site?	☐ Yes ☐ No

Mixed use developments

All developments containing both residential and non-residential units are to address the following.

Refer to Mixed Use Developments section in Guidelines.

1	Has separate waste and recycling storage been allocated for residential and non-residential aspects of the site?	☐ Yes ☐ No
	Will the collection point be shared for residential and non-residential waste?	☐ Yes ☐ No
	Have relevant site plans identified the storage areas, collection points and management systems for both residential and non-residential waste streams?	☐ Yes ☐ No

Declaration

Name of applicant (please print):

Signature of applicant:

Date:

Appendix D – CV of the Waste Team Lead

urbis.com.au

Olderfleet, Level 10, 477 Collins Street
Melbourne VIC 3000 Australia (Wurundjeri Country)

Urbis Ltd
ABN 50 105 256 228



Green Building Council of Australia

Level 31, International Towers, Tower Two

200 Barangaroo Ave

Barangaroo NSW 2000

To whom it may concern,

GBCA QUALIFICATION AS A WASTE SPECIALIST

I, Francisco Lugo, was the project lead for waste management with respect to the development of the waste management strategy and preparation of the Waste Management Plan for 111 Lorimer Street, Docklands. The Operational Waste Management Plan has been prepared in accordance with **Credit 4 (Responsible Resource Management) of Green Star Buildings Submission Guidelines** I meet the following definition for a "Waste Specialist/or Contractor" with several years' experience within the building industry, including key roles such as:

- 5 Years – WSP (consultancy) – Waste Management Consultancy (development of OWMPs as primary job role)
- 8 Months – Urbis (consultancy – Waste Management Consultancy (development of OWMPs as primary job role)

My current position is Senior Consultant – Circular Economy and Waste Management, within Urbis. My CV is attached for further evidence of my experience in the development OWMPs.

I trust the above suitably provides evidence of my qualification as a Qualified Waste Auditor.

Kind regards,

A handwritten signature in black ink, appearing to read "Francisco Lugo".

Francisco Lugo
Senior Consultant
+61 3 8639 9742
flugo@urbis.com.au



Francisco Lugo

Senior Consultant

Waste and Circular Economy

About Francisco:

Francisco is a Senior Consultant in Circular Economy and Waste Management with Urbis having significant experience in high profile projects on sustainability strategies, product detail design, experience within data research and implementation of emerging and innovative processes for waste and logistics.

He is well versed in corporate sustainability frameworks, technical advice and effective communication skills for sustainable development with experience over 6 years in the Consultancy space and 3 years in the Sustainable Product Development space.

Francisco understands complex project where the back of house is vital for the operations of large scale developments. As a waste and logistics consultant, Francisco has been able to provide technical advice on high performing and space efficient equipment, waste and loading data analysis, principles and strategies to achieve higher diversion rates and innovative processes for the Australian market.

Qualifications

Bachelor of Industrial Design, ITESM Guadalajara, Mexico

Master of Environment and Sustainability, Monash University

Relevant Project Experience

- **Flinders West (VIC) – 7-23 Spencer Street, Docklands** – Waste and Loading for T1 and T2 – Green Star OWMP
- **Geelong Convention and Exhibition Centre** – Waste and Logistics Management Plan – Green Star OWMP
- **Geelong Convention and Exhibition Centre** – Waste and Logistics Management Plan – Green Star OWMP
- **New Melton Hospital** (Circular Economy, Waste and Logistics) – Green Star OWMP
- **Collins Arch, 447 Collins Street, Melbourne** – Green Star OWMP
- **32-36 York Street, Sydney** – Green Star OWMP

Sectors

Commercial
Hospitals
Residential
Council
Precincts
Fit outs
Infrastructure

Contact details

+03 8639 9742

flugo@urbis.com.au

Appendix E – CoS Correspondence

Francisco Lugo

From: Michael Stephens <MJStephens@cityofsydney.nsw.gov.au>
Sent: Wednesday, 15 April 2026 10:42 AM
To: Ryan Thomas; Graham Jahn
Cc: Alisa Nicholson; Joshua Romeo; Veronica Lee; Elmira Vatani; Catherine Atkinson; Tina Stone; cbaudin; Rido Pin; Peggy Chesterman; Michael Wiener; Steven De Pasquale; Duggan, Andrew
Subject: RE: Follow-up - Mirvac Green Square Town Centre - SSD applications

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Ryan,

Thankyou for forwarding through the previous advice. We have taken the opportunity to further review the development from a waste and transport perspective and can provide the following advice:

- Twice weekly rubbish collection is acceptable for this site / development.
- The concern regarding the 11.5m turntable clearance for a 10.6m waste truck remains as this leaves only 300mm clearance at either end of the truck to columns and structures within the basement. Further consideration is required to increase the clearance to a minimum of 500mm at either end. Additional safety mechanisms such as vehicle positioning systems and alarms may still be required to ensure the waste truck can service the site safely and efficiently.

Please let me know if further clarification is required.

Thanks,

Michael Stephens (he/him)
Senior Planner
Planning Assessments



Telephone: +612 9265 9040
cityofsydney.nsw.gov.au



The City of Sydney acknowledges the Gadigal of the
Eora nation as the Traditional Custodians of our local area.

From: Ryan Thomas <ryan.thomas@mirvac.com>
Sent: Tuesday, 14 April 2026 9:43 AM
To: Graham Jahn <gjahn@cityofsydney.nsw.gov.au>
Cc: Michael Stephens <MJStephens@cityofsydney.nsw.gov.au>; Alisa Nicholson <anicholson@cityofsydney.nsw.gov.au>; Joshua Romeo <JRomeo@cityofsydney.nsw.gov.au>; Veronica Lee <VLee@cityofsydney.nsw.gov.au>; Elmira Vatani <EVatani@cityofsydney.nsw.gov.au>; Catherine Atkinson <catherine.atkinson@mirvac.com>; Tina Stone <tina.stone@mirvac.com>; Craig Baudin <CBaudin@fkaustralia.com>; Rido Pin <rpin@plusstudio.co>; Peggy Chesterman <peggy.chesterman@mirvac.com>;

Michael Wiener <michael.wiener@mirvac.com>; Steven De Pasquale <steven.depasquale@mirvac.com>; Duggan, Andrew <andrew.duggan@colliers.com>

Subject: TRIM CM: RE: Follow-up - Mirvac Green Square Town Centre - SSD applications

Caution: This email came from outside the organisation. Don't click links or open attachments unless you know the sender, and were expecting this email.

Hi Graham,

Agree it was a helpful discussion. See attached email correspondence referred to in my email below which includes both waste truck size and collection frequency.

Regards

Ryan

From: Graham Jahn <gjahn@cityofsydney.nsw.gov.au>

Sent: Tuesday, 14 April 2026 9:08 AM

To: Ryan Thomas <ryan.thomas@mirvac.com>

Cc: Michael Stephens <MJStephens@cityofsydney.nsw.gov.au>; Alisa Nicholson <anicholson@cityofsydney.nsw.gov.au>; Joshua Romeo <JRomeo@cityofsydney.nsw.gov.au>; Veronica Lee <VLee@cityofsydney.nsw.gov.au>; Elmira Vatani <EVatani@cityofsydney.nsw.gov.au>; Graham Jahn <gjahn@cityofsydney.nsw.gov.au>

Subject: RE: Follow-up - Mirvac Green Square Town Centre - SSD applications

Dear Ryan

Our last meeting was a positive meeting. Thank you for the interim follow up and ensuring accommodation of a 10.6m truck in the various buildings.

I am copying in waste services so that they are contemporaneously aware of your comments regarding turntable size, clearances and frequency and any comments at this stage they may have to be directed to senior planner Michael Stephens.

We would appreciate if you could send a copy of the previous correspondence on waste truck size.

regards

Graham Jahn AM
Chief Planner / Executive Director
City Planning Development & Transport



Telephone: +612 9265 9945
cityofsydney.nsw.gov.au



The City of Sydney acknowledges the Gadigal of the
Eora nation as the Traditional Custodians of our local area.

From: Ryan Thomas <ryan.thomas@mirvac.com>

Sent: Monday, 13 April 2026 5:09 PM

To: Graham Jahn <gjahn@cityofsydney.nsw.gov.au>

Cc: Michael Stephens <MJStephens@cityofsydney.nsw.gov.au>; Catherine Atkinson <catherine.atkinson@mirvac.com>; Craig Baudin <CBaudin@fkaustralia.com>; Rido Pin <rp@plusstudio.co>; Peggy Chesterman <peggy.chesterman@mirvac.com>; Michael Wiener <michael.wiener@mirvac.com>; Duggan, Andrew <andrew.duggan@colliers.com>; Alisa Nicholson <anicholson@cityofsydney.nsw.gov.au>; Melody Hay <MHay@cityofsydney.nsw.gov.au>; Tina Stone <tina.stone@mirvac.com>; Steven De Pasquale <steven.depasquale@mirvac.com>

Subject: Follow-up to Overshadowing analysis of Nielson Plaza and Drying Green meeting

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Dear Graham,

Thank you for your time on Tuesday to meet Mirvac regarding Green Square and in particular overshadowing on the Drying Green. At the meeting there was some discussion as to waste collection and in particular the size of trucks that have been provisioned for. We understand that waste is one of the City's key concerns. In particular, in relation to waste truck size and waste collection frequency.

The proposed waste areas in the various stages have been designed to align with direction provided by the City's waste team in previous correspondence.

The proposal has been designed to accommodate a 10.6m long waste collection vehicle, as advised by the City's waste team. The proposal provides an 11.5m turntable to accommodate the 10.6m vehicle. We do note that, the City's submission on Stage 3 states that a 12.5m diameter turntable is required. Our advice is that a 10.6m vehicle requires 300mm clearance at each end, which is exceeded by an 11.5m turntable. Therefore, we can confirm that an adequate turntable size has been provided for the 10.6m vehicle.

We also thought it was worth bringing to your attention waste collection frequency noting the City's submissions states that a maximum collection interval of one collection per week would be scheduled for a development of this location and scale. The City's waste team has previously advised that the design should be sized to accommodate a once-a-week collection of recycling bin and twice a week collection of general waste. The proposal has been designed on this basis of this advice. (email from City of Sydney to Urbis dated 5 August 2025)

We will more formally respond to the City of Sydney's submission which will include waste in our Response to Submissions report. However given your comments on Tuesday, I thought it was appropriate to address these matters with you at this earlier stage.

We would be more than happy to discuss these matters further with Council if further clarification is required.

Regards

Ryan

Ryan Thomas
Development Director

Francisco Lugo

From: Ellena Mangavoulakis <EMangavoulakis@cityofsydney.nsw.gov.au>
Sent: Wednesday, 6 August 2025 9:17 AM
To: Maree Marshall
Cc: Francisco Lugo; Martin Menendez
Subject: RE: Waste design Green Square Stage 3

Follow Up Flag: Follow up
Flag Status: Completed

Some people who received this message don't often get email from emangavoulakis@cityofsydney.nsw.gov.au. [Learn why this is important](#)

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Hi Maree

Council cannot provide your building with a special service – that would be unfair for all of the other buildings that have been expected to provide large waste collection areas.

There are several large sites in Green Square and they are all assessed and required to design for twice a week collection of general waste, once a week collection of recycling and a waste generation rate of 120L per unit.

The only buildings that have a more frequent service are old buildings with undersized waste storage areas.

We aim to reduce waste vehicle movement in the City with fewer collections not more.

Kind regards
Ellena

From: Maree Marshall <mareemarshall@urbis.com.au>
Sent: Tuesday, 5 August 2025 4:38 PM
To: Ellena Mangavoulakis <EMangavoulakis@cityofsydney.nsw.gov.au>
Cc: Francisco Lugo <flugo@urbis.com.au>; Martin Menendez <mmenendez@urbis.com.au>
Subject: RE: Waste design Green Square Stage 3

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Hi Ellena,

Thank you for the information.

The waste volume due to the size of the development currently exceeds the capacity of your collection vehicle when collections are 1 day per week.

I would like to request 3 collections per week for both general waste and recycling to suit your truck capacity.

The basic calculations are below.

I would be pleased to discuss this over the phone.

I would also like to discuss using case study data from other MIRVAC BtR projects for volumes of apartment waste and bulky waste which is significantly reduced in BtR developments.

Apartments		Litres per week	
493		General	Recycling
		55,216	59,160

Current Service	Litres per collection		Number of 1100L bins collected		Areas (m2)		Total Area (m2)	Total Area (incl clearance)
	General	Recycling	General	Recycling	General	Recycling		
CoS Collect 1 time p/w		59,160	-	54		72	72	143
CoS Collect 2 times p/w	27,608		25	-	33		33	67
							105	210

Cubic Metres per collection (m3)		truck capacity	
9	30	24m3	recycling volume exceeds truck capacity

Requested Service	Litres per collection		Number of 1100L bins collected		Areas (m2)		Total Area (m2)	Total Area (incl clearance)
	General	Recycling	General	Recycling	General	Recycling		
CoS Collect 3 times p/w	17		22		30		30	59
CoS Collect 3 times p/w		18		24		32	32	63
							61	123

Cubic Metres per collection (m3)		truck capacity	
6	9	24m3	volumes within truck capacity

Assumptions	
Compaction ratio general waste	
Compaction ratio recycling	
Time per bin collection (mins)	
Circulation factor	
Truck capacity (m3)	

I will send you a teams invite. Please feel free to nominate an alternate time if it does not suit.

Regards

MAREE MARSHALL
DIRECTOR

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E mareemarshall@urbis.com.au
My working days are Monday to Thursday

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From: Ellena Mangavoulakis <EMangavoulakis@cityofsydney.nsw.gov.au>
Sent: Tuesday, 5 August 2025 2:17 PM
To: Maree Marshall <mareemarshall@urbis.com.au>
Cc: Francisco Lugo <flugo@urbis.com.au>; Martin Menendez <mmenendez@urbis.com.au>
Subject: Waste design Green Square Stage 3

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Hello Maree,

I have received your email enquiry re waste collection design from Gemma. As I am not based in the City a quick catch up is difficult but happy to talk re teams if you have further questions to my answer below.

The CoS waste collection service is not as flexible as that provided by Melbourne - additional waste storage space for bins will need to be built into your design than appears was expected.

We are keen to confirm the City of Sydney's position on waste collection from BtR developments.

- Does City of Sydney consider BtR as a commercial business?
 - BtR is defined as residential accommodation and the waste collection should be designed our standard waste collection service - twice a week for general waste and once a week for recycling
- Does City of Sydney collect BtR waste (garbage, recycling, food organics, bulky waste)?
 - Yes – to be designed to accommodate a 10.6m long waste collection vehicle
- Is there a waste charge for BtR based on the number of apartments?
 - Rates charge will be based on litters/volume of waste collected from the site

We would like to have a single waste collection point for the three towers.

- Does the City of Sydney permit garbage compactors?
 - The City does not collect waste compactors or allow for waste compaction
- Does the City of Sydney permit commingle recycling compactors?
 - No -as above
- Does the City of Sydney permit private collections from large developments?
 - No
- Based on 400+ apartments over 3 towers, can we design for 3 collections per week if bin based? (the basement may not permit the height clearance for compactors).
 - A waste holding area at the loading dock should be sized to accommodate a once a week collection of recycling bin and twice a week collection of general waste based on 120L per dwelling of each waste stream

We are interested in a new approaches to residential organics management so please include your new system in the current project.

If you would like a Teams call to chat please send me a meeting invite.

Kind regards
Ellena

From: Maree Marshall <mareemarshall@urbis.com.au>
Sent: Monday, 4 August 2025 4:16 PM
To: Gemma Dawson <GDawson@cityofsydney.nsw.gov.au>
Cc: Tammy Chor <tchor@cityofsydney.nsw.gov.au>; Francisco Lugo <flugo@urbis.com.au>; Martin Menendez <mmenendez@urbis.com.au>
Subject: RE: Catch up with Maree while in Sydney



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