

Waste Management Plan

*Lot 208, Lot 209, Lot 210
Automated Distribution Centre
(ADC)*

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Revision	Date	Details
1	17/03/2026	Draft Waste Management Plan
2	20/04/2026	TOA Lodgement Waste Management Plan
3	08/05/2026	Final Waste Management Plan

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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Waste Management Plan – Lot 208, Lot 209, Lot 210 Automated
Distribution Centre (ADC)

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Executive Summary

This **Waste Management Plan** has been prepared by **Urbis** to accompany a detailed State Significant Development Application (**SSDA**) for the construction of a warehouse or distribution facility (as defined), referred to throughout this report as an automated distribution facility (**ADC**).

The land to which this report relates is referred to as 475 Badgerys Creek Road, Bradfield, which has direct interface with the Western Sydney International Airport (WSI), legally described as part Lot 102 and Lot 105 in DP 1316278. It is noted that the ADC will be located on future lots within the 475 Badgerys Creek Road landholding. For the purpose of this Report, reference to 'the site' will relate primarily to the area within the broader lot proposed to be developed for the ADC, unless otherwise specified.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued for the project (SSD-105499958).

This report concludes that the proposed development is suitable and warrants approval subject to the implementation of the following mitigation measures:

- Appropriate equipment to manage all waste streams
- A waste strategy in alignment with the aims, objectives and guidance in the NSW Waste and Sustainable Materials Strategy 2041.

Following the implementation of the above mitigation measures, the remaining impacts are appropriate.

Waste Management Summary

The following waste systems and collection arrangements are proposed for the development:

Table 1 – Waste Collection Summary

Stream	Item	Collections per Week	Collection
Garbage	1x 30m3 Compactor	3	All Collections by Private Contractor
Commingled Recycling	5x 1100 Litre Bin	3	
Cardboard	2 x 30m3 Compactors	3	
Organics	10 x 240 Litre Bins	3	
Hard Waste & Timber	2x 25m3 Skip Bin	Up to 1	
E-Waste	4x 1100 Litre Bins	Up to 1	
Soft Plastics	4 x 1m3 Bales	3	
Extended waste streams	Misc	As required	

* Extended waste streams (i.e. glass, CDS) 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.

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

All waste collections will occur on-site directly from the **loading dock area located at the north of the site**. A **10.7m hook lift** or smaller collection vehicle will be utilised to perform all collections, entering and exiting the *site internal road*, accessed via **Road 03** of the overall Badgerys Creek Masterplan. No height obstacles are present via waste vehicle path of travel within associated access. **At compactor areas, a clearance of 4.5m at the point of compactor lift is allowed.**

For streams not managed within the compactors, a **12.5m rear loader collection (or smaller)** vehicle will be used, propping within the *loading areas adjacent to the waste room*, with operators to collect the material directly from the waste area and return empty storage containers (if appropriate) immediately upon emptying.

Swept path analysis showing sufficient access to each loading area is provided in Appendix B.

Introduction

This report has been prepared to accompany an SSDA for the construction of a warehouse or distribution facility (as defined) by an e-retailer at 475 Badgerys Creek Road, Bradfield (**the site**).

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (**SEARs**) dated 2nd of March 2026. Specifically, this report has been prepared to respond to the SEARs requirement identified in section 1.1.

Site Description

The land to which this report relates is referred to as 475 Badgerys Creek Road, Bradfield, which has direct interface with the Western Sydney International Airport (WSI). It is noted that the ADC will be located on proposed Lots 208, 209 and 210 within the broader 475 Badgerys Creek Road, Bradfield landholding. These lots are not yet formally registered.

The broader landholding has an area of approximately 184 hectares and is subject to an approved Master Plan prepared by Inghams Property Group (IPG). The proposed ADC will be located in Stage 2 of the IPG master plan site. The application site has an area of approximately 172,000m². The location of the application site is shown below.

Figure 1 Application Site Location



Source: Urbis, 2025

The broader master plan site was formerly used for intensive poultry farming and previously contained a series of sheds and ancillary structures and associated internal road network, which have now been demolished. Earthworks and other site establishment works have commenced across the broader IPG master plan site.

Project Description

It is the e-retailers intent to construct and operate a new ADC. The ADC will be a distribution centre for goods storage and distribution direct to offsite third-party sortation service providers.

The proposed description of development is as follows:

"Construction, fit-out and operation of a warehouse or distribution facility (automated distribution centre) with associated car parking, landscaping, driveway accesses, utility service connection, bulk earthworks and other related works".

Additional information

The proposal includes the complete fit-out of the internal space. This includes all required racking, automation and associated ancillary features. The full scope of works (including fit-out works) are to be assessed in each report as relevant.

Bulk earthworks will be undertaken by IPG via a separate planning pathway to establish the development pad for the site as well as the levels for the adjoining masterplan roads and development lots. However, additional bulk earthworks are proposed as part of the SSDA to ensure that the proposed warehouse is appropriately integrated within its surroundings.

Waste Strategy Summary

The following **Waste Management Plan (WMP)** has been prepared for the proposed Automated Distribution Centre development **Lots 208, 209 & 210, 475 Badgerys Creek Road, Bradfield.**

This WMP has been prepared based on **City of Liverpool's Development Control Plan 2008 (amended 2019), DPHI's Western Sydney Aerotropolis Precinct Plan (2025), Western Sydney Aerotropolis Development Control Plan, IPG Badgerys Creek Road Master Plan** and best practice waste management methodology and technologies commonly available in Australia.

The waste generation rates provided within have been prepared based on other similar facilities the e-retailer operates elsewhere in Australia.

Table 2 – Development summary

Use	Area
Distribution Centre (Packing and Sorting)	66,926 m ²
Ancillary Office and break out spaces	2,360 m ²
Warehouse (Storage and conveying)	130,830m ²

1

Response to Waste Control Items

This section will provide details on responses to SEARs, WSA DCOP and IPD Master Plan controls and other relevant waste documents.

1.1 Standard Statement of Inclusion

The following standard statement must be included in all sub-consultant reports and signed by the relevant author (the sub-consultant). The statement confirms that the report or plan complies with the relevant SEAR (identified by its number) and any pertinent state and local legislation, policies, and guidelines.

Additionally, it confirms that the information contained in the report is accurate and not misleading. The consultant signature at the end verifies that the sub-consultant accepts responsibility for the accuracy and compliance of the report.

In addition to this statement, the following table must also be included which identifies the SEARs and the relevant source reference in the respective report. It is noted that there may be instances where a report addresses more than one SEAR item.

Note: Relevant consultants are to input the relevant information in the areas highlighted in yellow.

I Maree Marshall, confirm this Waste Management Plan addresses the requirement of SEAR No. SSD-105499958 WSI3 Automated Distribution Centre and relevant State and local legislation, policies, and guidelines including City of Liverpool's Development Control Plan 2008 (amended 2019), DPHI's Western Sydney Aerotropolis Precinct Plan (2025), Western Sydney Aerotropolis Development Control Plan, IPG Badgerys Creek Road Master Plan. I further confirm that none of the information contained in the Waste Management Plan is false or misleading.



SEARS Item	Report Reference
Waste - A waste management report that provides details of: - The quantities and classification of all waste streams to be generated on site during the development. - Waste storage, handling and disposal during the development - The measures that would be implemented is consistent with the aims, objectives and guidance in the NSW Waste and Sustainable Materials strategy 2041.	<i>For quantities of waste streams to be generated onsite during the development see section 2.2.</i> <i>For waste storage and handling see sections 2.2, 2.3, 2.4 and 2.5.</i> <i>For measures that reflect NSW Waste and Sustainable Materials strategy 2041 see Table 6.</i>

1.2 Western Sydney Aerotropolis Precinct Plan Waste Controls

Table 3 summarises Department of Planning, Housing and Infrastructure (**DPHI**) Western Sydney Aerotropolis Precinct Plan Waste (**WSAP**) Controls applicable to developments within Badgerys Creek in regard to waste management, and how these are responded to throughout the WMP.

Table 3 – Response to WSAP Controls

WSAP Requirement (Section 4.7)	WMP Response
SR1) Energy, water and waste systems are to use a circular economy approach to improve efficiency and result in low-carbon developments.	Waste systems as described in section 2.1 show waste methodology for increased operational waste diversion from landfill in accordance with Circular Economy principles for improved efficiency and low-carbon. For Energy and water Circular Economy approaches, refer to the ESD document, <i>Automated Distribution Centre (ADC)</i> prepared by Northrop.
SR3) Plan for, and achieve, leading industry targets by 2025 and from 2026 beyond to achieve sustainable regenerative targets: 10% reduction of waste generation 85% reduction in construction waste 100% recovery and re-use of organic waste 90% reduction in construction waste	Waste systems as described in section 2.1 show waste volume calculation using use reflective rates that demonstrate a reduction in waste generation when compared to DCP/industry standard values. Section 2.1 describes how organic waste is recovered/diverted from the garbage stream. Section 3.4 describes construction waste reduction quantities.
SR4) Circular economy activities must be located with consideration of: proximity to major transportation routes, considering safe transportation of extractive and waste materials	This development is proposed within the Western Sydney Aerotropolis Precinct which is an intentionally built activation precinct that leverages its proximity to transportation routes to unify the aerotropolis to industrial, commercial and technological uses. This site has considered the location of its circular economy activities from a waste management perspective.

1.3 IPG Badgerys Creek Road Master Plan

Table 4 summarises Ingham Property Group Master Plan principles applicable to developments within Badgerys Creek, NSW in regard to waste management, and how these are responded to throughout the WMP.

Table 4 – Response to IPG Principles and Requirements

IPG Requirement – 6.11.3 Waste Management (AC)	WMP Response
1. In accordance with good practice waste management, the following specific procedures is to be implemented for development within the Master Plan, where appropriate:	See section 2.1.1 and 3 for on-site source separation See section 3 for concrete, tiles and bricks reused or recycled off-site

– On-site source separation to ensure efficient recycling – Concrete, tiles and bricks reused or recycled off-site – Steel recycled off-site, and all other metals recycled where economically viable – Framing timber recycled off-site – Windows, doors and joinery off-site, where possible – All glass that can be economically recycled will be recycled – All solid waste timber, brick, concrete, rock that cannot be reused or recycled will be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner – Re-use of materials on-site where possible – Separate waste bins for recyclable and non-recyclable general waste – Assess excavation spoil for contamination status and beneficial re-use – Retain used crates for storage purposes unless damaged – Recycle cardboard, glass and metal waste – Provide sufficient space for storage of garden waste and other waste materials onsite – Dispose of all asbestos, hazardous and/or intractable waste in accordance with SafeWork NSW and NSW EPA requirements – All used crates will be stored for reuse unless damaged – Deliver batteries to drop off-site recycling facility, and – Where source separation is utilised, materials are to be kept uncontaminated to guarantee the highest possible re-use value.	See section 3 for steel recycled off-site, and all other metals recycled where economically viable See section 3 for framing timber recycled off-site See section 3 for windows, doors and joinery recycled off-site where possible See section 2.1.2 and 3 for all glass that can be economically recycled to be recycled See section 3 for all solid waste timber, brick, concrete and rock that cannot be reused or recycled to be taken to an appropriate facility for treatment to recover further resources or for disposal to landfill in an approved manner See section 3 for re-use of materials on-site where possible, and see section 2.1.1 and 3 for separate waste bins for recyclable and non-recyclable general waste See section 3 for assessment of excavation spoil for contamination status and beneficial re-use See section 2.1.2 and 3 for retaining used crates for storage purposes unless damaged See section 2.1 and 3 for recycling cardboard, glass and metal waste See section 3 for provision of sufficient space for storage of garden waste and other waste materials onsite See section 3 for disposal of all asbestos, hazardous and/or intractable waste in accordance with SafeWork NSW and NSW EPA requirements See section 2.1.2 and 3 for all used crates to be stored for reuse unless damaged See section 2.1 and 3 for delivery of batteries to a drop off-site recycling facility See section 2.1 and 3 for materials to be kept uncontaminated where source separation is utilised, to guarantee the highest possible re-use value
2. Contaminated materials including fill materials and soils must be assessed by an appropriately qualified and experienced environmental consultant for remediation and management options.	See section 3
3. All asbestos and other hazardous waste must be handled according to appropriate legislation and regulation including the Work Health and Safety Regulation 2011 and disposed of in accordance with the SafeWork NSW and relevant EPA requirements.	See section 3

4. Any waste requiring off-site management must be classified in accordance with Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014) and transported to a facility lawfully authorised to receive, re-use and dispose of that waste
- See section 3

1.4 WSA Development Control Plan

Table 5 summarises the Western Sydney Aerotropolis Development Control Plan principles applicable to developments within Badgerys Creek, NSW in regard to waste management, and how these are responded to throughout the WMP.

Table 5 – Response to WSA DCP and Requirements

WSA DCP Requirement – 2.16 Waste Management and Circular Economy	Benchmark Solution	WMP Response
PO1 – Waste management measures are implemented at lot and neighbourhood scale to support circular economy activities.	1. Submit a waste management plan to support circular economy activities that also details the quantity and type of waste generated and how this will be managed, reused and recycled. Where possible, incorporate technologies such as vacuum extraction or on-site food processing.	See Section 2 and Section 3 for recycling and reuse opportunities, quantities and management.
	2. Co-locate and integrate waste infrastructure on sites with multiple uses by providing a single collection point for waste and recycling.	See Appendix A for location of Central waste areas.
	3. Demonstrate that organic waste can be managed in the building through measures such as: a. Multiple options for on-site organic waste to maximise recovery (e.g. communal composting, worm farms, individual composting, dehydrators); b. Organics and recycling service to all households; or c. Energy generation from organic waste (anaerobic digestion) at lot and precinct scale.	See section 2.1.1.3 for Food Organic waste management methodology.
PO2 – Waste and recycling facilities promote waste separation and reduce contamination.	1. Collection points (including but not limited to reverse vending machines and e waste drop-off) must be located with adequate space for servicing, ease of use and to encourage the separation of	See Appendix A for waste storage locations and layout. See Table 12 for waste storage area requirements.

Materials are separated at source to achieve higher value recovery.	waste material. Collection points are documented in the waste management plan and are easily accessible. 2. Provide separate and enclosed storage for liquid, chemicals, and hazardous waste. 3. Where general waste chutes are used, provide for the collection of recycling and organic waste at each level within the building. 4. Consolidated organic waste drop off points are designed to minimise any potential odour and vermin risks. This includes the provision of rooms that are temperature controlled and suitably ventilated.	See Appendix A for waste storage location of liquid, chemicals, and hazardous waste Chutes not used. See Appendix A for waste storage locations and layout. See section 4.6 for vermin control.
PO3 - The location of waste management is clearly indicated for each site and neighbourhood.	1. Provide uniform waste management design and colour coding in accordance with AS 4123 across residential and commercial developments. 2. Waste management systems and rooms are located inside buildings to support a heightened amenity and urban design outcome. Waste must not be left outside (excluding during collection) to avoid attracting animals.	See section 4.1 for waste management design and colour coding in accordance with AS 4123. To comply with PO7 of this DCP, the waste storage areas have been designed for flexibility through the use of an external storage cage which deters animals. See section 4.6 for vermin control.
PO4 - Waste bins are provided to a level commensurate with waste produced for each development as outlined in Council's waste and recycling service.	1. Waste storage areas are designed to: a. Accommodate the required number and size of waste bins; b. Provide space for the bins to be accessed, rotated and manoeuvred for emptying; c. Allow for future waste separation practices; and d. Account for different uses in mixed use development through the provision of separate and enclosed collection rooms for both residential and commercial uses. 2. Align building design and collection points with Council's waste and recycling services and collection fleets.	See section 2.
PO5 - Implement innovative waste management storage systems that are safe, healthy, and efficient.	1. Waste storage areas are to: a. Be well-lit and ventilated; b. Include water and drainage facilities for cleaning the bins and bin storage area; c. Be easily and conveniently accessible for all users and collection contractors;	See Appendix A for waste area layouts. See Appendix B for swept path access. See section 4 for standards and compliance.

- d. Be located so that residents do not have to walk more than 30m for access; and
 - e. Comply with Local Council Policy and contractual service provisions.
2. Collection and loading points are to be:
- a. Level;
 - b. Free of obstructions;
 - c. Easily accessible from the nominated waste and recycling storage area;
 - d. Be integrated wholly within the built form to support a heightened amenity outcome;
 - e. Be accessible by heavy rigid collection vehicles to permit entry and exit of the site in a forward direction;
 - f. Comply with the Building Code of Australia and Relevant Australian Standards; and
 - g. Comply with Local Council Policy and contractual service provisions.
3. Provide safe and easy access to waste and resource recovery areas for residents, building managers and collection contractors.
4. Ensure waste and recycling areas flexibly adapt to other types of waste and materials storage over time.
5. Design waste and recycling facilities to prevent litter and contamination of the stormwater drainage system.

See section 2 for waste collection and storage methodology.

PO6 - Waste management storage systems minimise negative impacts on the streetscape, public domain, building presentation or amenity of pedestrians, occupants, and neighbouring sites.

- 1. Waste storage and collection areas are to:
 - a. Where possible, be integrated wholly within the developments built form;
 - b. Not be visible from the street or public domain;
 - c. Not adjoin private open space, windows, habitable rooms, or clothes drying areas;
 - d. Not be located within front setbacks; and
 - e. Comply with Local Council Policy and contractual service provisions.
- 2. Collection points and systems are designed to minimise noise for occupants and neighbours during operation and collection.

To comply with PO7 of this DCP, the waste storage areas have been designed for flexibility through the use of an external storage cage which deters animals. See section 4.6 for vermin control.

See section 4.5 for noise reduction.

PO7 – Recognise waste types, generation rates and separation needs may change during the useful life of a building.	1. Waste and resource recovery facilities are sited to enable possible future expanded floor area. 2. Design waste and resource recovery facilities to enable installation of new, potentially larger equipment.	See Appendix A for waste area layouts including areas for spare bins as required. To comply with PO7 of this DCP, the waste storage areas have been designed for flexibility through the use of an external storage cage which deters animals. See section 4.6 for vermin control.
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1.5 NSW Waste and Sustainable Materials Strategy 2041

Table 5 summarises the targets set out within the NSW Waste and Sustainable Materials Strategy 2041 applicable to the development, and how these are responded to throughout the WMP.

Table 6 – initiatives addressed within the NSW Waste and Sustainable Materials Strategy 2041.

NSW Waste and Sustainable Materials Strategy 2041	WMP Response
Target 1 – reduce total waste generated by 10% per person by 2030	Staff training will be available targeting waste reduction as per section 2.
Target 2 – have an 80% average recovery rate from all waste streams by 2030	See section 2.2 and 3 for resource recovery in operation and construction respectively.
Target 3 – significantly increase the use of recycled content by governments and industry	See section 3.
Target 4 – phase out problematic and unnecessary plastics by 2025	See section 2.1.2 for additional waste streams being diverted.
Target 5 – halve the amount of organic waste sent to landfill by 2030.	See section 2.1.1.3 for organic operational waste diversion.
Reporting Goal 1 – introduce a new overall litter reduction target of 60% by 2030 and a plastic litter reduction target of 30% by 2025, as set out in the NSW Plastics Action Plan	See section 2.1 for stream diversion methodology.
Reporting Goal 2 – set a goal to triple the plastics recycling rate by 2030, as set out in the NSW Plastics Action Plan	See section 2.1 for stream diversion methodology.
Reporting Goal 3 – reaffirm our commitment to the goal of net zero emissions from organic waste by 2030, as laid out in the NSW Net Zero Plan Stage 1: 2020–2030	See section 2.1.1.3 for organic operational waste diversion.
Reporting Goal 4 – establish new indicators to help us track our progress on infrastructure investment and the cost of waste services	This WMP has been prepared to reflect better waste practice with existing waste management infrastructure to assist this goal. See section 2.1 for stream diversion methodology.

Reporting Goal 5 – develop a new measure of the emissions performance of our waste and materials management. This will help us to track our performance across the lifecycle of materials.

This WMP has been prepared with an area dedicated to any future services for waste management relevant to the site. See appendix A for location and space of additional/spare bins area.

2

Waste Management Analysis

Automated Distribution Centre

2 Waste Management

This section covers the waste management strategy, including waste stream separation, waste calculations and material handling proposed.

The waste management strategy has been developed in alignment with expectations set by **City of Liverpool's Council Planning Controls, State Environmental Planning Policy (Precincts—Western Parkland City) 2021 (WPC SEPP), Western Sydney Aerotropolis Precinct Plan, Western Sydney Aerotropolis Development Control Plan** and 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 and requires all staff to complete training modules to increase awareness of waste generation to enhance reduction.

2.1 Waste Stream Systems

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

Table 7 – Waste Streams

Core Waste Streams	Additional Waste Streams
General Waste (Garbage)	Hard Waste / Bulky Waste
Commingle Recycling	Electronic Waste
Cardboard	Secure Paper
Food Organics	Soft Plastics
	Unique Waste Streams (e.g. light bulbs, polystyrene)
	Glass
	Polystyrene

2.1.1 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 throughout the ancillary spaces, work areas and communal 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 occupants of the site/cleaners are required to service throughout the development.



Figure 2 – Bin Station Examples

Ancillary spaces shall have minimum provisions for a single bin station per room or collective area for all uses. Each bin station is recommended to consist of a minimum of three bins to have a minimum cumulative capacity of the core waste streams: garbage, commingled recycling and cardboard.

2.1.1.1 General Waste and Cardboard

Three 30m3 compactors will be used for the disposal and management of **general waste (one)** and **cardboard (two)** generated throughout the development.

Occupants of the site/cleaners will be responsible for transferring and disposing general and cardboard waste directly into drop-off cage/bins throughout the development and ultimately disposing into the compactor(s). Only trained occupants of the site/cleaners are to operate the compactor(s).

Garbage waste is to be disposed of bagged and large cardboard items are to be broken down and flattened prior to disposal.

Garbage and Carboard have been assumed to compact at a 3:1 ratio. In practice, higher compaction ratios may be achieved.

2.1.1.2 Commingled Recycling

Occupants of the site/cleaners will be responsible for transferring and disposing of commingled recycling into the corresponding 1100 litre temporary holding bins located in the waste area.

Commingled recycling is to be disposed of loosely within the provided bins.

2.1.1.3 Food Organics

Office amenities may be furnished with small bins/tubs for the separation of temporary holding of food organics (scraps), as deemed appropriate by the occupant(s). Occupants of the site/cleaners will transfer and empty these bins/tubs into the 240L organics bin provided in the waste room.

2.1.1.4 Hard Waste and Timber

A dedicated 25m3 skip bin for hard (bulky) waste and timber will be used by staff to temporarily store their bulky waste until the time of collection.

2.1.1.5 Electronic Waste

A dedicated set of 1100L Bins for electronic waste area will be used by staff to temporarily store their e-Waste until the time of collection. It is expected that most of the electronic waste generated by the site is due to maintenance of the equipment.

2.1.2 Additional Waste Streams

2.1.2.1 Pallets

A dedicated 525m2 area will be used by staff to temporarily store their pallets until the time of collection.

2.1.2.2 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.

Soft plastic will be managed via a vertical baler, with 660L bins or soft plastic gathering stands provided within the site for the temporary holding of soft plastics until such time as the volume is sufficient for a complete bale.

2.1.2.3 Hazardous Household Chemicals

Due to the expected distribution of household goods (e.g. chemicals, cleaning products) from this site, a separate set of bins will be allocated within the distribution centre for the management of these products.

2.1.2.4 Glass Waste

Glass waste is not expected to be generated by this type of development. If necessary, allowance for extra bins (120L bins) have been provided on the waste room to manage this and other streams as necessary by building management.

2.1.2.5 Textiles

Textile waste bins have been provided for the separation of textile waste. Textiles will be disposed of loosely with no packaging. Should the item be in good condition, please see section 2.1.2.6 Donations.

2.1.2.6 Donations

A dedicated set of 660L bins on the internal spaces of the building will be used by staff to temporarily holding of any good quality items that can be repurposed, reused or donated.

2.1.2.7 Extended 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 this type of development, and its separation will increase the diversion from landfill.

Table 8 – Extended Waste Stream Methodology

Waste Stream	Storage Method
Expanded Polystyrene (EPS)	To be stored within a gathering stand (refer Figure 3 below for example) or a 660 litre bin subject to collection contractor preference
Waxed Cardboard	Dedicated line-marked storage area and/or 660 litre bin within waste store
Unique Recyclables	Generally stored within smaller bins appropriate to the stream within a dedicated area as nominated adjacent to the loading dock. This includes fluorescent tubes, secure paper, hard plastics.



Figure 3 – Example Soft Plastic Gathering Stand

2.2 Waste Generation

The waste generation rate used to profile this site is based on waste volume data held by Urbis and sourced from volume data from a similar site operated by the client. Waste generated in areas that operate similar to an office, commercial office standard waste generation rates are used.

For the purposes of waste generation assessment, the ground floor of the warehouse is anticipated to be the primary waste-generating component of the site, accommodating activities such as packing and printing. Urbis holds case study-specific waste generation rates for comparable ground floor uses, which have been applied to this assessment and reflect the actual use of the floor space.

The upper levels of the development function as a conventional storage warehouse, with activities largely limited to the storage and conveyance of goods. These operational distinctions have been reflected in the waste generation estimates presented in the table below.

Waste generation rates per week are shown in **Table 9**.

Table 9 –Waste Generations

Use	Weekly Generation Rate (Litres / 100m2 / Week)				
	General Waste	Recycling	Cardboard	Organics	Soft Plastic
Distribution Centre (Packing and Sorting)	175	4	578	10	131
Ancillary Office and breakout space	56	28	42	7	7
Warehouse (Storage and conveying)	63	10	60	-	7

Weekly waste generation assessment for the development is shown in **Table 10**.

Building services of the facility (i.e. generators, main switch, etc.) are not considered to generate additional waste. Waste generated by these ancillary areas is created in service of the main areas and is therefore incorporated into the rates shown above.

Table 10 – Waste Generation Assessment

Use	Area (Net Leasable)	Weekly Waste Volume (Litres / Week)				
		General Waste	Recycling	Cardboard	Organics	Soft Plastic
Distribution Centre (Packing and Sorting)	66,926	117,121	2,677	386,835	6,693	87,674
Ancillary Office and breakout space	2,360	1,322	661	991	165	165
Warehouse (Storage and conveying)	130,830	82,423	13,083	78,498	0	9,158
	TOTAL	200,866	16,421	466,324	6,858	96,997

2.3 Internal Waste Transfer and Handling

All waste transfer paths are to be exclusively within the site title boundary and do not require occupants of the site/cleaners to exit title to perform operations. Transfer routes for waste collections do not include stairs or gradients greater than 1:14.

2.4 Waste Management Equipment

Table 11 details the storage method, size, capacity and frequency of collection required for the development.

Compactors and Baler are assumed to provide a **compaction ratio of 3:1 on general waste and cardboard**, and **10:1 on soft plastics**; in practice, higher compaction ratios may be achieved subject to material disposed and supplier equipment capabilities.

Table 11 – Waste Equipment Capacity & Volume

Stream	Storage Method	Size	Qty	Collections per Week	Weekly Capacity (L) (Uncompacted)	Weekly Volume (L) (Uncompacted)
General Waste	Compactor	30m3	1	3	270,000	200,866
Commingled Recycling	Bin Based	1100 Litre	5	3	17,600	16,421
Cardboard	Compactor	30m3	2	3	540,000	466,324
Food Organics	Bin Based	240 Litre	10	3	7,200	6,858
Soft Plastics	Bales	10,000 L (equivalent)	4	3	120,000	96,997

Due to the requirement for a suitable volume of each extended waste stream (refer to **Section 2.1.2**) 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.

2.5 Waste Storage and Location

Table 12 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 12 – Waste Storage Area Requirements

Waste Area	Waste Equipment	Area Required (m ²)	Area Provided (m ²)
Compactors	3no. 30m3 Compactor	70.20	200.00
	3no. Bin lifter		
Waste and Pallet Storage	9no. 1100L Bins	11.97	256.00
	6no. 660L Bins	5.88	
	1no. Baler	2.15	
	4no. Bales	3.68	
	2no. 25m3 Skip Bin	28.00	
	1no. 120–240L Bin Lifter	2.00	
	10no. 240L Bins	4.30	
	36no. 120L Bins	9.36	
	1no. 40m2 Additional Bin Presentation area	40.00	
	1no. 525m2 Pallet Area	525.00	
TOTAL		702.54m²	981.00m²

2.6 Waste Collection Summary

The following waste systems and collection arrangements are proposed for the development:

Table 13 – Overall Site – Waste Collection Summary

Stream	Item	Collections per Week	Collection
Garbage	1x 30m3 Compactor	2	All Collections by Private Contractor
Commingled Recycling	5x 1100 Litre Bin	3	
Cardboard	2x 30m3 Compactors	3	
Organics	10x 240 Litre Bins	3	
Hard Waste & Timber	2x 25m3 Skip Bin	Up to 1	
E-Waste	4x 1100 Litre Bins	Up to 1	
Soft Plastics	4x Bales	1	
Extended waste streams	Misc	As required	

* Extended waste streams (i.e. glass, CDS) 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.

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

All waste collections will occur on-site directly from the **loading dock area located at the north of the site**. A **10.7m hook lift** or smaller collection vehicle will be utilised to perform all collections, entering and exiting the *site internal road*, accessed via **Road 03** of the overall Badgerys Creek Masterplan. No height obstacles are present via waste vehicle path of travel within associated access. **At compactor areas, a clearance of 4.5m at the point of compactor lift is allowed.**

Swept path analysis showing sufficient access is provided in Appendix B.

For streams not managed within the compactors, a **12.5m rear loader collection** vehicle will be used, propping within the *loading areas*, with operators to collect the material directly from the waste area and return empty storage containers (if appropriate) immediately upon emptying.

3

Construction and Demolition Waste

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

3 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 the site.

Please note that demolition works have been completed under a separate proposal and are not included within this report.

The information contained within this section of the 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.

3.1 Guidelines & objectives

This C&D Waste Management Plan has been prepared based **City of Liverpool's Council Planning Controls, State Environmental Planning Policy (Precincts—Western Parkland City) 2021 (WPC SEPP), Western Sydney Aerotropolis Precinct Plan, Western Sydney Aerotropolis Development Control Plan** and current best practice waste management methodology and technologies currently available in Australia. The following objectives are 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.

3.2 Project Description

The proposed development seeks to deliver the construction of an automated distribution facility (**ADC**).

Table 14 – Proposed Construction and Demolition Works

Construction Works Summary	▪ Earthworks (cut & fill) ▪ Site preparation ▪ External hardstands, paved areas, and landscaping ▪ Concrete frame construction ▪ Glazed and Aluminium facade installation ▪ Site level
Demolition Works Summary	▪ No Demolition Works are Proposed

3.3 C&D Waste Management

3.3.1 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 15 – 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.

3.3.2 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.

3.4 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).

3.4.1 Demolition Phase

The site has no existing buildings onsite (see Figure 1) as such, no demolition works are occurring onsite and has been omitted from this report.

3.4.2 Construction Phase

Construction works will usually generate waste through the erection and finishing of the development (i.e., construction waste). A construction management plan CMP (to be prepared by others post consent) 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 16 – Estimated Construction Waste Materials

Waste Stream	Estimated Tonnage	% Typically Recovered	Estimated Diversion from Landfill (t)
Bricks / Ceramics	1,514.5	90%	1,363.1
Concrete	1,514.5	95%	1,438.8
Timber (untreated)	2,650.4	95%	2,517.9
Packaging	1,363.1	80%	1,090.4
Metals	340.8	100%	340.8
Other Waste (e.g. plasterboard, ceramics)	1,703.8	80%	1,363.1
Total	9,087.1	Total	8,113.9
% Diverted from Landfill		89.29%	

3.5 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 sight 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

3.5.1 Waste and Recycling receptacles

Where applicable, separate receptables 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 17 – 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)			Store in dedicated bins and collect by paper/card recycling contractor.

3.5.2 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.

3.6 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.

3.7 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.
- **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.

3.8 Roles and Responsibilities

3.8.1 Stakeholder Roles and Responsibilities

Implementation and further detailing 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.

3.8.2 Contractors and Suppliers

A listing of contractors and equipment suppliers is provided below for reference. 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 18 – 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

3.9 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.

4

Standards, Compliance and Equipment

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

4 Standards and Compliance

4.1 Bin Supplier and Colours

All bins and equipment mentioned in this WMP will be provided by private supplier. 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.
- Glass bins shall have purple lids with dark green or black body.
- Organics bins shall have lime green lids with dark green or black body.

Private collection contractors often supply their own bins for collection.

4.2 Signage

Waste drop-off areas and bins will be clearly marked and signed with the approved EPA NSW and City of Liverpool waste disposal signage, or equivalent, examples of which are provided in Figure 4. Occupants of the site/cleaners will be instructed by building management to adhere to these requirements.

Additional signage surrounding the waste room discouraging the feeding of wildlife will be installed.



Figure 4 - Example of EPA NSW Signage

4.3 Ventilation

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

4.4 Bin Washing

An appropriately drained wash down area will be provided within 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 grease 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.

4.5 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.

4.6 Vermin Prevention

All waste areas that attract vermin are enclosed in a cage constructed with a layer of “rodent mesh” (steel mesh with aperture of 6mm or less) and kept clean for prevention of vermin ingress.

Regular washing of areas and bins will occur.

All bins will be stored closed to prevent small vermin access.

All entrances to roof cavities will be blocked off/sealed to deter roosting or use as a habitat by wildlife (see Figure 6 exemplar). The underside of the roof will be constructed with supplementary panels on the underside to cover the roofing truss and prevent opportunity for hanging/sitting (see Figure 5 for reference).

The waste storage area/compound, which will be kept clean along with other measures listed above reduces the availability of food source and prevents the establishment of shelter by wildlife through sealing the underside of the roofing area wherein wildlife typically attempt to access/hang from. Meshing, seals the walls of the area/compound to prevent access to bins by vermin.



Figure 5 – Bin Cage example with flush roofing on the underside.



Figure 6 – sealed waste storage cage exemplar that prevents vermin access.

For the Garbage compactor, it is recommended that the connection point between the hopper and the compactor unit be guarded by plastic/rubber meshing akin to Figure 7 for ease of connection and prevention of vermin ingress.



Figure 7- Plastic/rubber vermin guard.

5 Waste Equipment Details

5.1 Typical Equipment Dimensions

The below table details the typical waste equipment dimensions.

Table 19 – Typical Storage Equipment Dimensions

Unit	Width (mm)	Depth (mm)	Height (mm)
30m ³ Compactor (with Bin Lifter)	9,500	2,480	2,480
B16 Baler	2,050	1,050	2,570
1100 Litre Bin	1,240	1,070	1,330
660 Litre Bin	1,260	780	1,330
240L Bin	585	730	1,060
120L Bin	480	545	930
25m ³ Skip Bin	6,000	1,800	2,240
Bin Lifter	950	1150	2565
Bin Tug	930	1,450	1,300

5.2 High Level Purchasing Schedule

Table 20 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 20 – Equipment Supply Schedule

Item	Quantity	Typical Services Requirement (s)*	Supplier
30m3 Compactors	1 x Garbage 2 x Cardboard	<u>Power:</u> 3-phase, 415V 32A Power	Private Supplier (Wastech or equivalent)
B16 Baler (Bramidan)	1 x Soft Plastics	<u>Power:</u> 3-phase, 415V 16A Power	Private Supplier (Wastech or equivalent)
Bin Lifter	3x For attachment to compactors 1x Transfer of material	<u>Power Supply:</u> 1-phase, 3-phase or battery.	Private Supplier (Wastech or equivalent)
25m3 Skip Bin	2 x Hard Waste and Timber	<u>Nil</u>	Private Supplier (Waste Initiatives or equivalent)
1100L Bin	5 x Recycling 4x E-waste	Nil	Private Supplier (SULO or equivalent)
660L Bin	2x Glass 4 x Other streams	Nil	Private Supplier (SULO or equivalent)
240L Bin	10 x Organic Waste	Nil	Private Supplier (SULO or equivalent)
120L Bin	36 x transfer of waste	Nil	Private Supplier (SULO or equivalent)

** Services requirements are indicative only and must be confirmed with the manufacturer prior to the commencement of construction.*

5.3 Supplier Contact information

A complimentary listing of contractors and equipment suppliers is provided in Table 21 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 21 – 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
	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
CDS Collection	Scouts Victoria	(03) 8543 980	www.scoutscds.com.au
	Return It	1300 237 010	www.returnit.com.au

Disclaimer

This report is dated 8 May 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 Confidential (**Instructing Party**) for the purpose of Waste Management Plan for SSDA (**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

REVISIONS		
REV	DESCRIPTION	DATE
P1	COORDINATION	23.03.2026
P2	COORDINATION	25.03.2026
P3	COORDINATION	27.03.2026
P4	COORDINATION	08.04.2026
P5	COORDINATION	10.04.2026
P6	COORDINATION	14.04.2026
P7	COORDINATION	04.05.2026
0	DEVELOPMENT APPLICATION	07.05.2026

URBIS

Urbis Limited
Level 8, Angel Place, 123 Pitt Street,
Sydney, NSW 2000, Australia

Project
475 Badgerys Creek Road, Bradfield

Client
Confidential

Drawing Title
Waste Sketch Comments

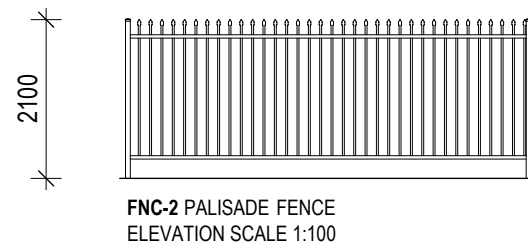
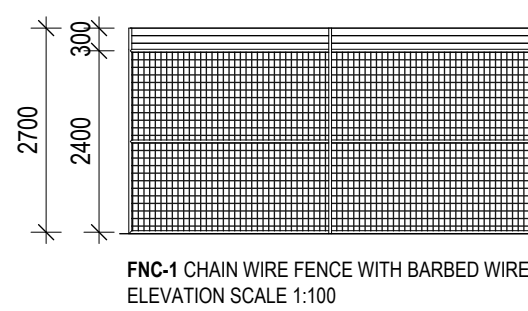
Date	Drawn	Checked	Approved
08/05/2026	MDM	MM3	MM3
Scale	Job No.	Sheet No.	Rev.
1:1000@A0	P0064918	1 OF 4	3

DEVELOPMENT SUMMARY

SITE AREA:	171,682m ²
LANDSCAPE AREA:	27,811m ² (16.1%)
TOTAL GFA:	195,829m ²
SITE COVERAGE	47.8%
INCLUDES:	EXCLUDES:
-CANOPIES/AWINGS	-WATER TANKS
-AWNINGS	-SUBSTATIONS
-PUMP ROOM	-GENERATOR
-GATE HOUSE	
-WAREHOUSE	
TOTAL CAR PARKING SPACES:	888
INCLUDES:	
-ACCESSIBLE PARKING (9)	
-UTE(9)	
-FUTURE PROVISIONS FOR ELECTRICAL VEHICLE PARKING (222) 25%	
MOTORBIKE PARKING:	32
BICYCLE PARKING:	40
TRAILER PARKING:	120

LEGEND

---	SITE BOUNDARY
---	LANDSCAPE SETBACK
---	BUILDING SETBACK
---	FNC-1
---	FNC-2
---	TRAFFIC BARRIER
---	LANDSCAPE AREA
---	OFFICE AREA
---	WAREHOUSE AREA
---	FIRE SERVICES & EGRESS
---	HEAVY DUTY PAVEMENT
---	LIGHT DUTY PAVEMENT
---	PEDESTRIAN PAVEMENT
RSD	ROLLER SHUTTER DOOR
DP	DOWNPIPES
RW	NEW RETAINING WALL
RW-E	EXISTING RETAINING WALL
TYP	TYPICAL
SG1	SWING GATE
SG2	SWING GATE - PEDESTRIAN
EV	ELECTRIC VEHICLE PARKING (FUTURE PROVISION)
UTE	UTILITY OR LONG WHEEL LIGHT VEHICLE

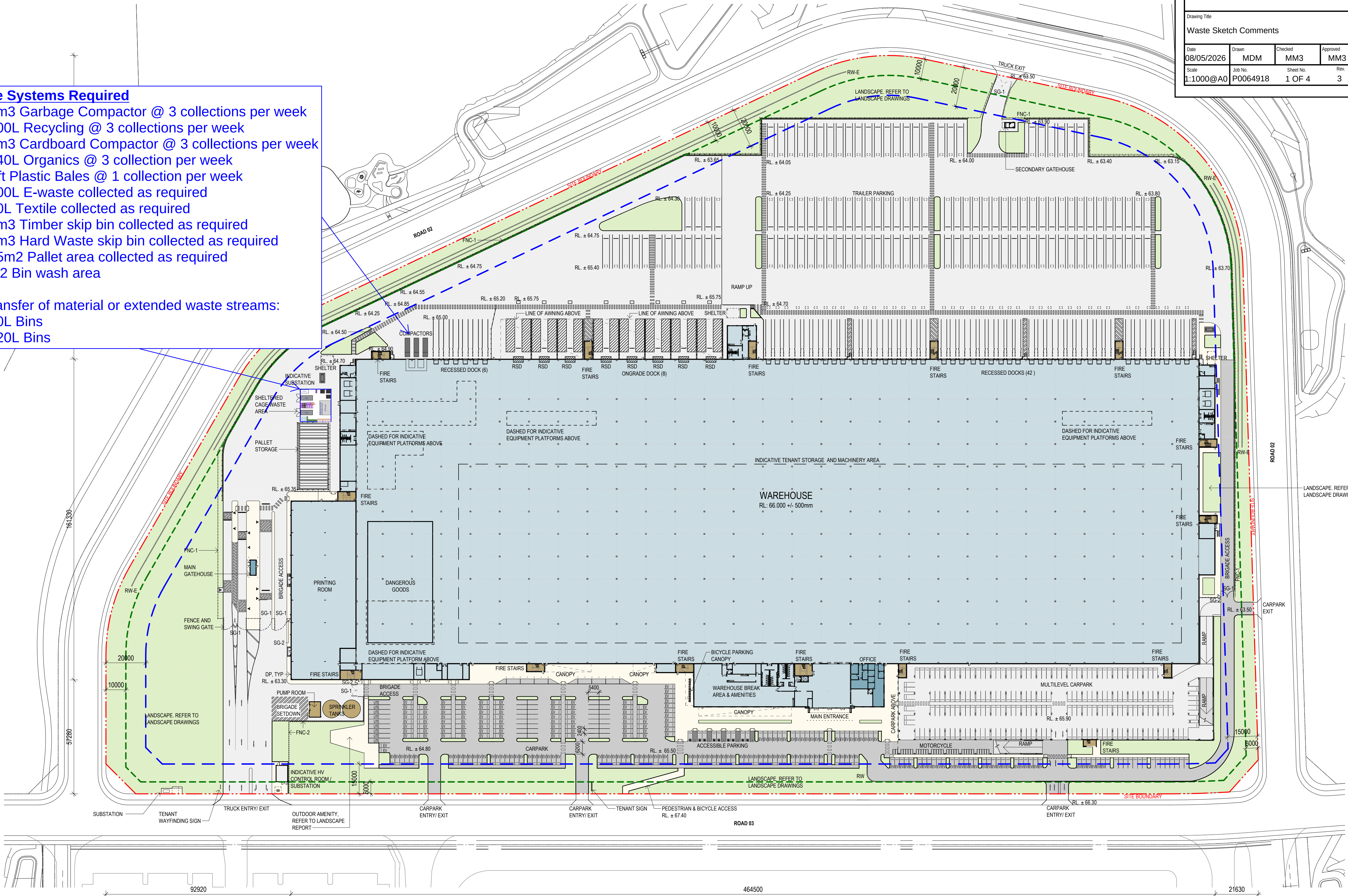


Waste Systems Required

- 1x 30m3 Garbage Compactor @ 3 collections per week
- 5x 1100L Recycling @ 3 collections per week
- 2x 30m3 Cardboard Compactor @ 3 collections per week
- 10x 240L Organics @ 3 collection per week
- 4x Soft Plastic Bales @ 1 collection per week
- 4x 1100L E-waste collected as required
- 2x 660L Textile collected as required
- 1x 25m3 Timber skip bin collected as required
- 1x 25m3 Hard Waste skip bin collected as required
- 1x 525m2 Pallet area collected as required
- 1x 8m2 Bin wash area

For transfer of material or extended waste streams:

- 4x 660L Bins
- 36x 120L Bins



DEVELOPMENT APPLICATION



AUTOMATED DISTRIBUTION CENTRE Lot 208, Lot 209, Lot 210
475 BADGERYS CREEK ROAD, BRADFIELD

SITE PLAN

LEGEND	
COL	COLUMN
RSD	ROLLER SHUTTER DOOR
DP	DOWNPIPES
RW	RETAINING WALL
RW-E	EXISTING RETAINING WALL
TYP	TYPICAL
MDR	METAL DECK ROOFING
EG	EAVES GUTTER
BG	BOX GUTTER
EJ	EXPANSION JOINT

URBIS

Urbis Limited
Level 8, Angel Place, 123 Pitt Street,
Sydney, NSW 2000, Australia

Project
475 Badgerys Creek Road, Bradfield

Client
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Drawing Title
Waste Sketch Comments

Date
08/05/2026

Drawn
MDM

Checked
MM3

Approved
MM3

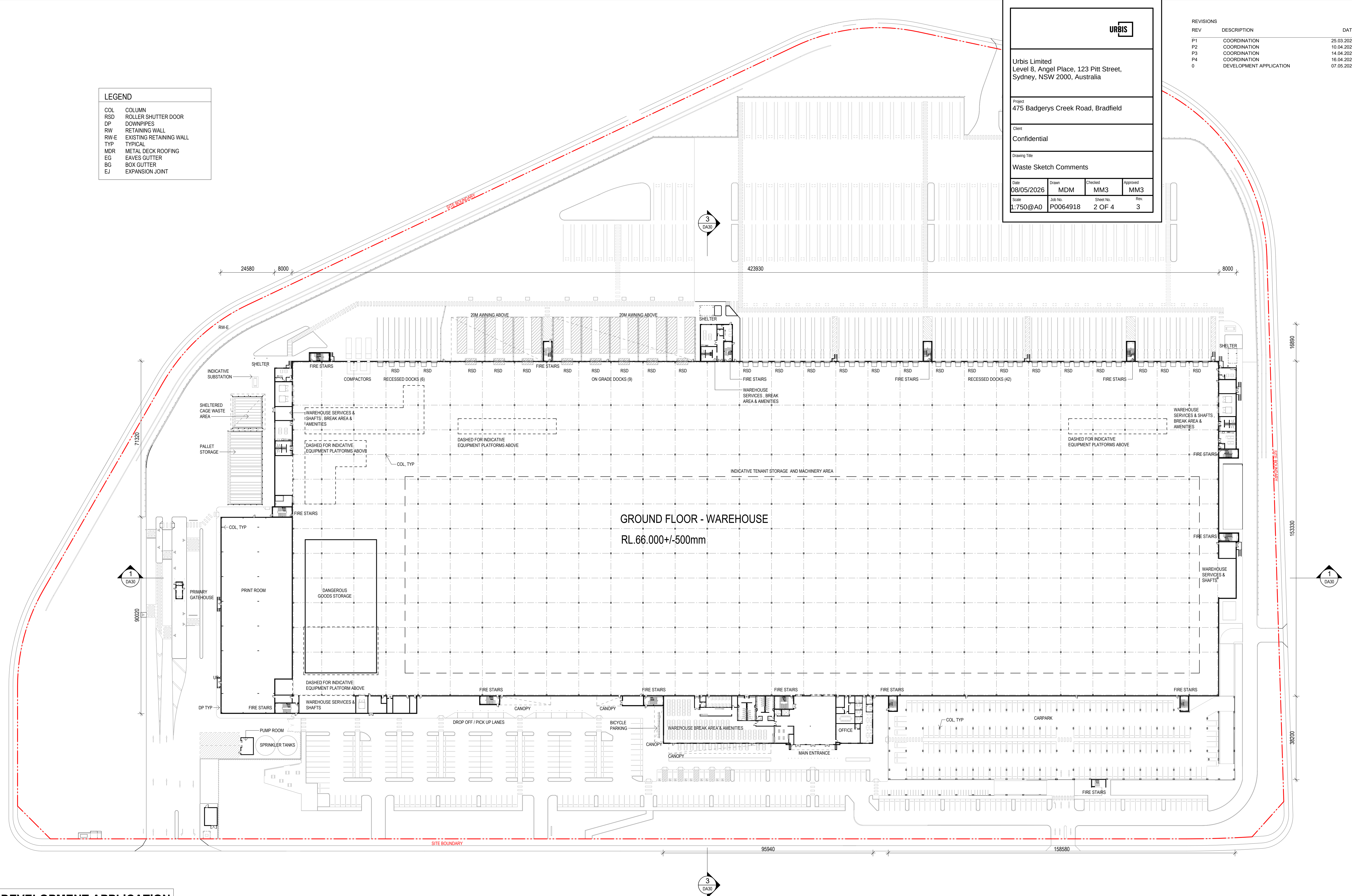
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Job No.
P0064918

Sheet No.
2 OF 4

Rev.
3

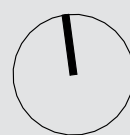
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P2	COORDINATION	10.04.2026
P3	COORDINATION	14.04.2026
P4	COORDINATION	16.04.2026
0	DEVELOPMENT APPLICATION	07.05.2026



DEVELOPMENT APPLICATION



AUTOMATED DISTRIBUTION CENTRE Lot 208, Lot 209, Lot 210
475 BADGERYS CREEK ROAD, BRADFIELD



GROUND FLOOR PLAN

LEGEND	
COL	COLUMN
RSD	ROLLER SHUTTER DOOR
DP	DOWNPIPES
RW	RETAINING WALL
RW-E	EXISTING RETAINING WALL
TYP	TYPICAL
MDR	METAL DECK ROOFING
EG	EAVES GUTTER
BG	BOX GUTTER
EJ	EXPANSION JOINT

URBIS

Urbis Limited
Level 8, Angel Place, 123 Pitt Street,
Sydney, NSW 2000, Australia

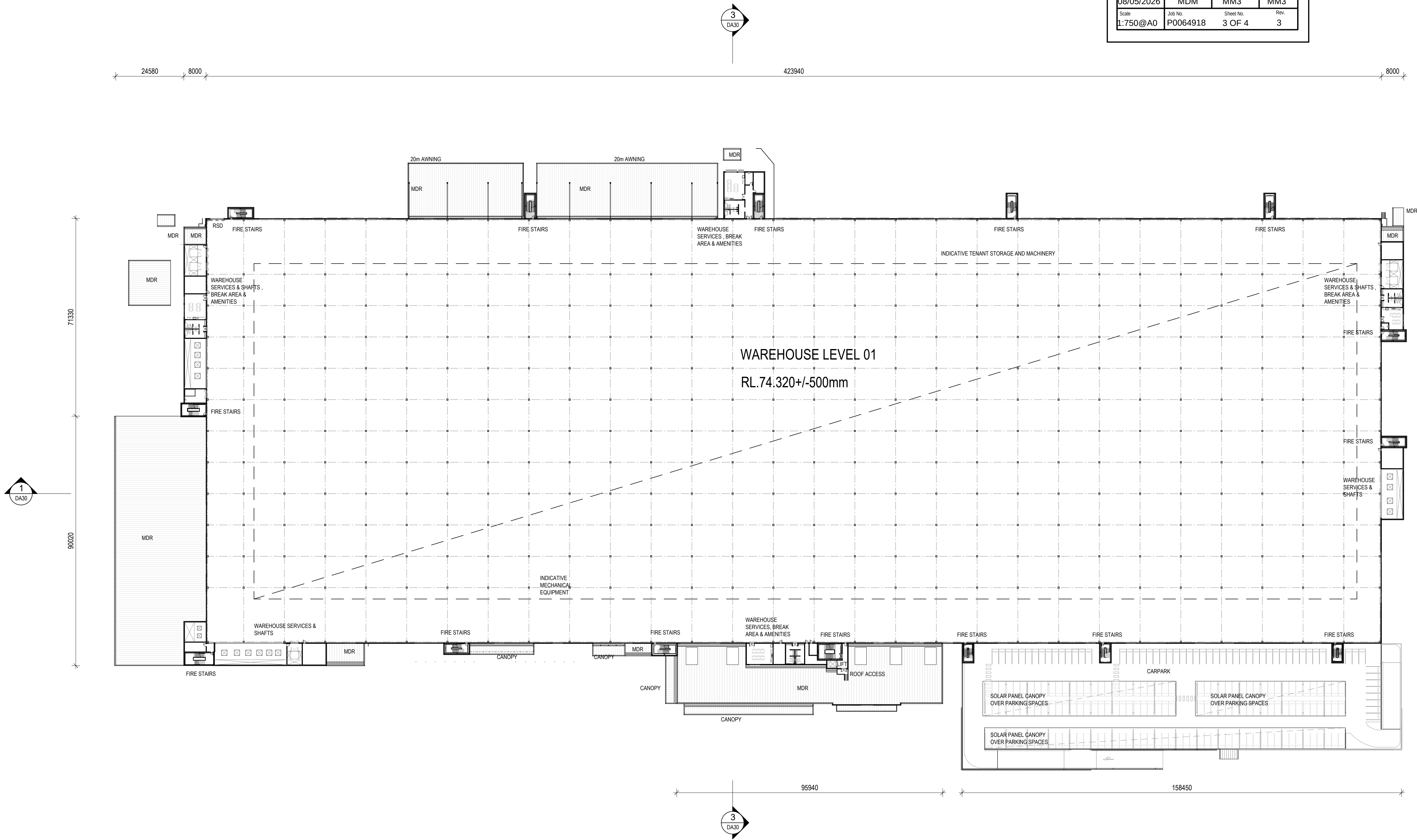
Project
475 Badgerys Creek Road, Bradfield

Client
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Drawing Title
Waste Sketch Comments

Date 08/05/2026	Drawn MDM	Checked MM3	Approved MM3
Scale 1:750@A0	Job No. P0064918	Sheet No. 3 OF 4	Rev. 3

REVISIONS		
REV	DESCRIPTION	DATE
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P2	COORDINATION	10.04.2026
P3	COORDINATION	14.04.2026
P4	COORDINATION	16.04.2026
0	DEVELOPMENT APPLICATION	07.05.2026



DEVELOPMENT APPLICATION



AUTOMATED DISTRIBUTION CENTRE Lot 208, Lot 209, Lot 210
475 BADGERYS CREEK ROAD, BRADFIELD



LEVEL 1 PLAN

LEGEND	
COL	COLUMN
RSD	ROLLER SHUTTER DOOR
DP	DOWNPIPES
RW	RETAINING WALL
RW-E	EXISTING RETAINING WALL
TYP	TYPICAL
MDR	METAL DECK ROOFING
EG	EAVES GUTTER
BG	BOX GUTTER
EJ	EXPANSION JOINT

URBIS

Urbis Limited
Level 8, Angel Place, 123 Pitt Street,
Sydney, NSW 2000, Australia

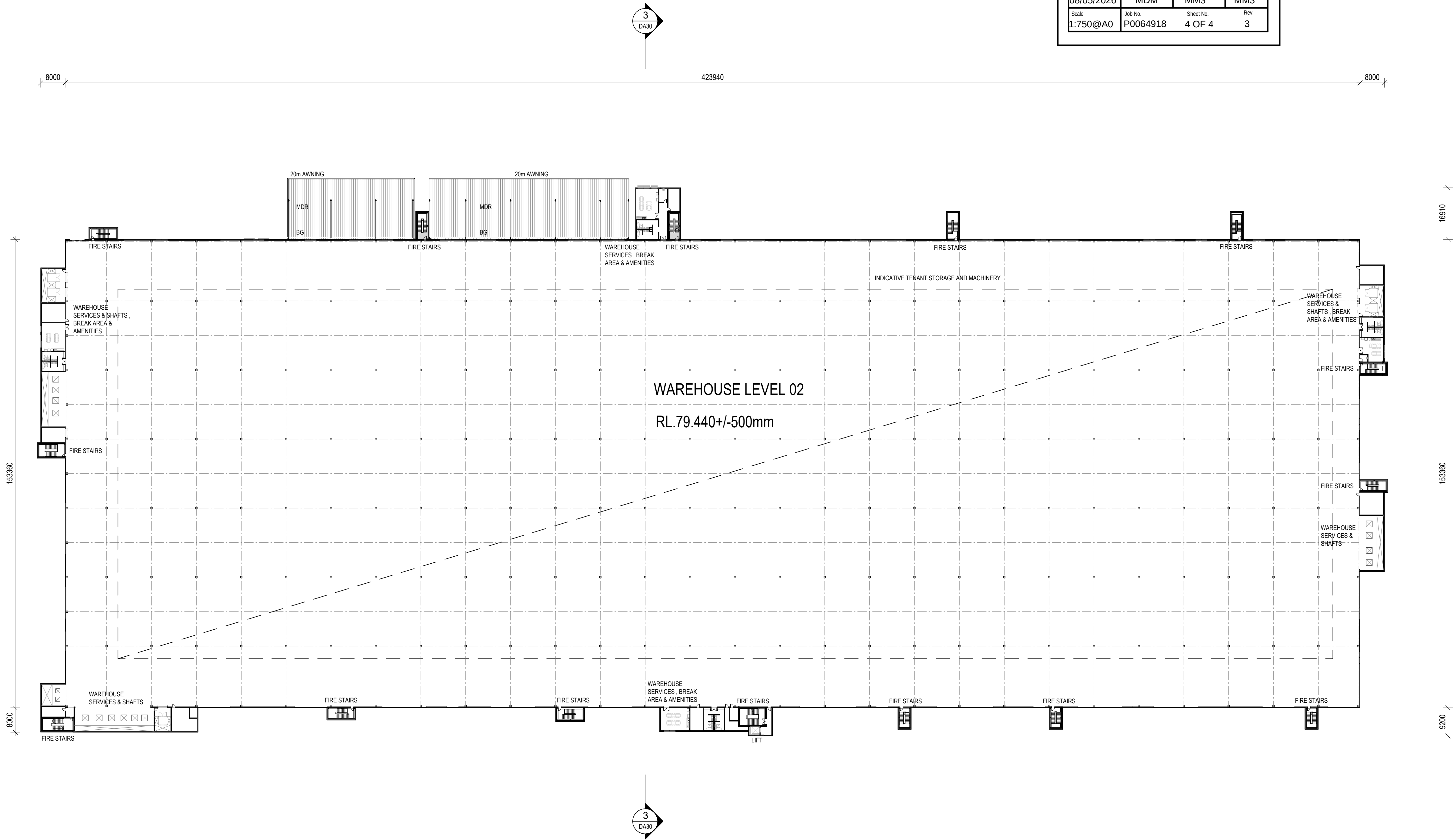
Project
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Drawing Title
Waste Sketch Comments

Date 08/05/2026	Drawn MDM	Checked MM3	Approved MM3
Scale 1:750@A0	Job No. P0064918	Sheet No. 4 OF 4	Rev. 3

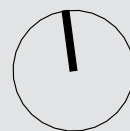
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P2	COORDINATION	10.04.2026
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P4	COORDINATION	16.04.2026
0	DEVELOPMENT APPLICATION	07.05.2026



DEVELOPMENT APPLICATION



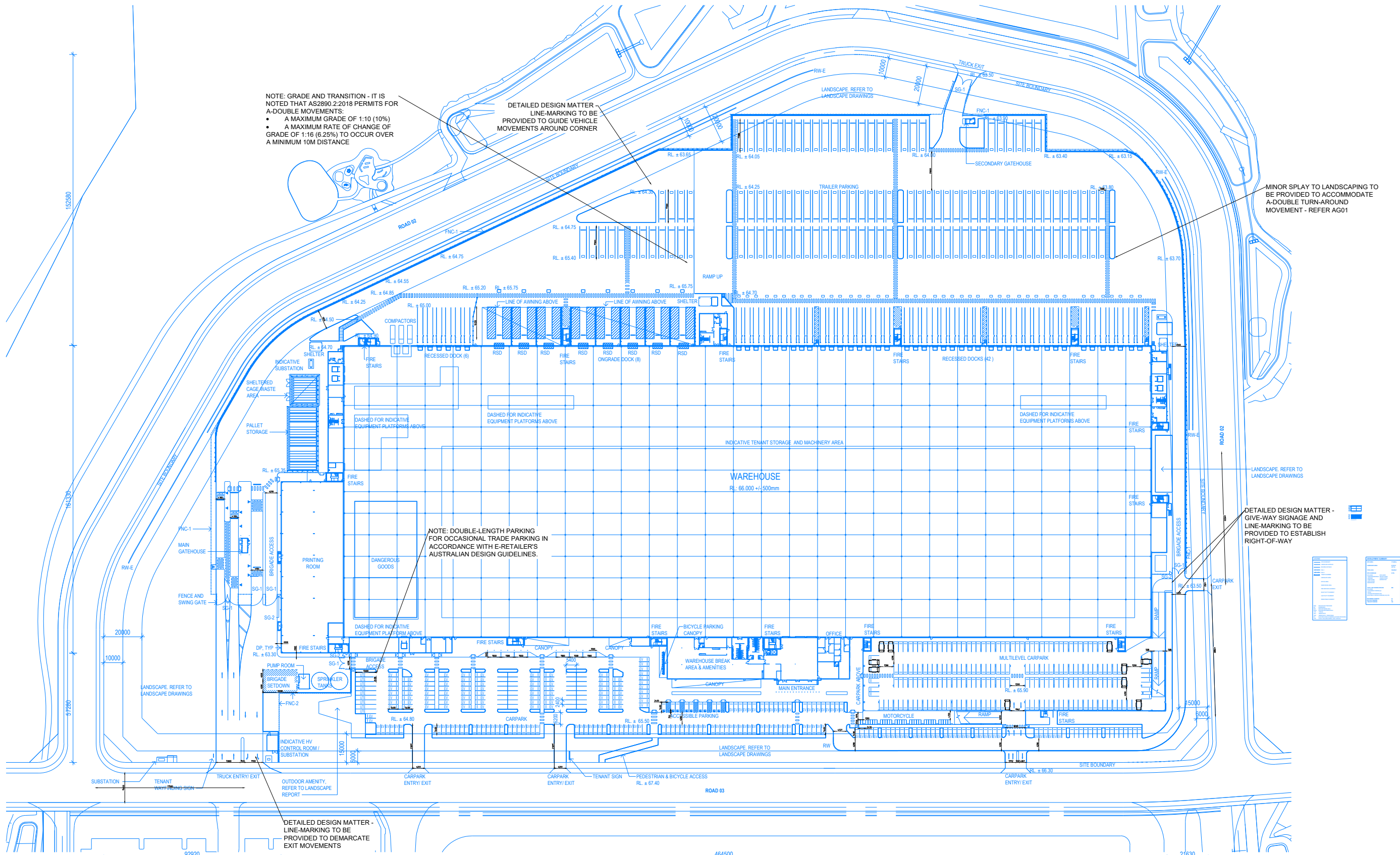
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LEVEL 2 PLAN

Appendix B – Swept Paths

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APPROVED BY AR	DATE 08.05.2026	PROJECT P1492G
SCALE 1:2000		475 Badgers Creek Road, Bradfield

DOCUMENT INFORMATION
DESIGN REVIEW

FILE NAME AG1492G-01-v05.dwg	SHEET AG01
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A-DOUBLE ACCESS

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APPROVED BY AR	DATE 08.05.2026	PROJECT P1492G
SCALE 1:2000		475 Badgerys Creek Road, Bradfield

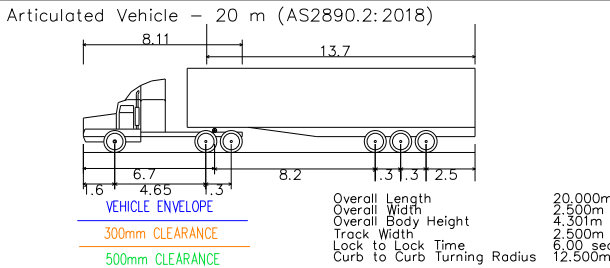
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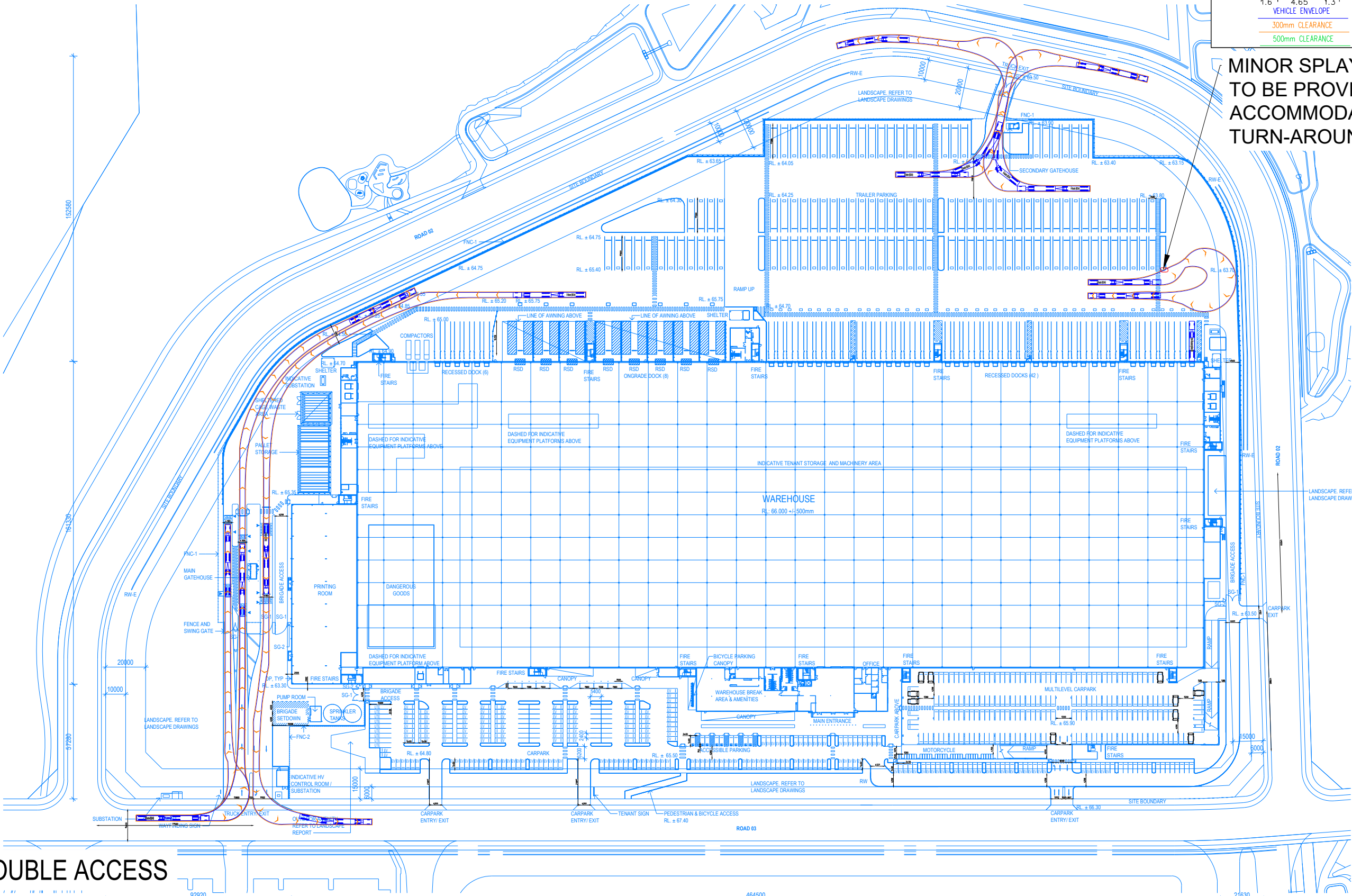
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AG02

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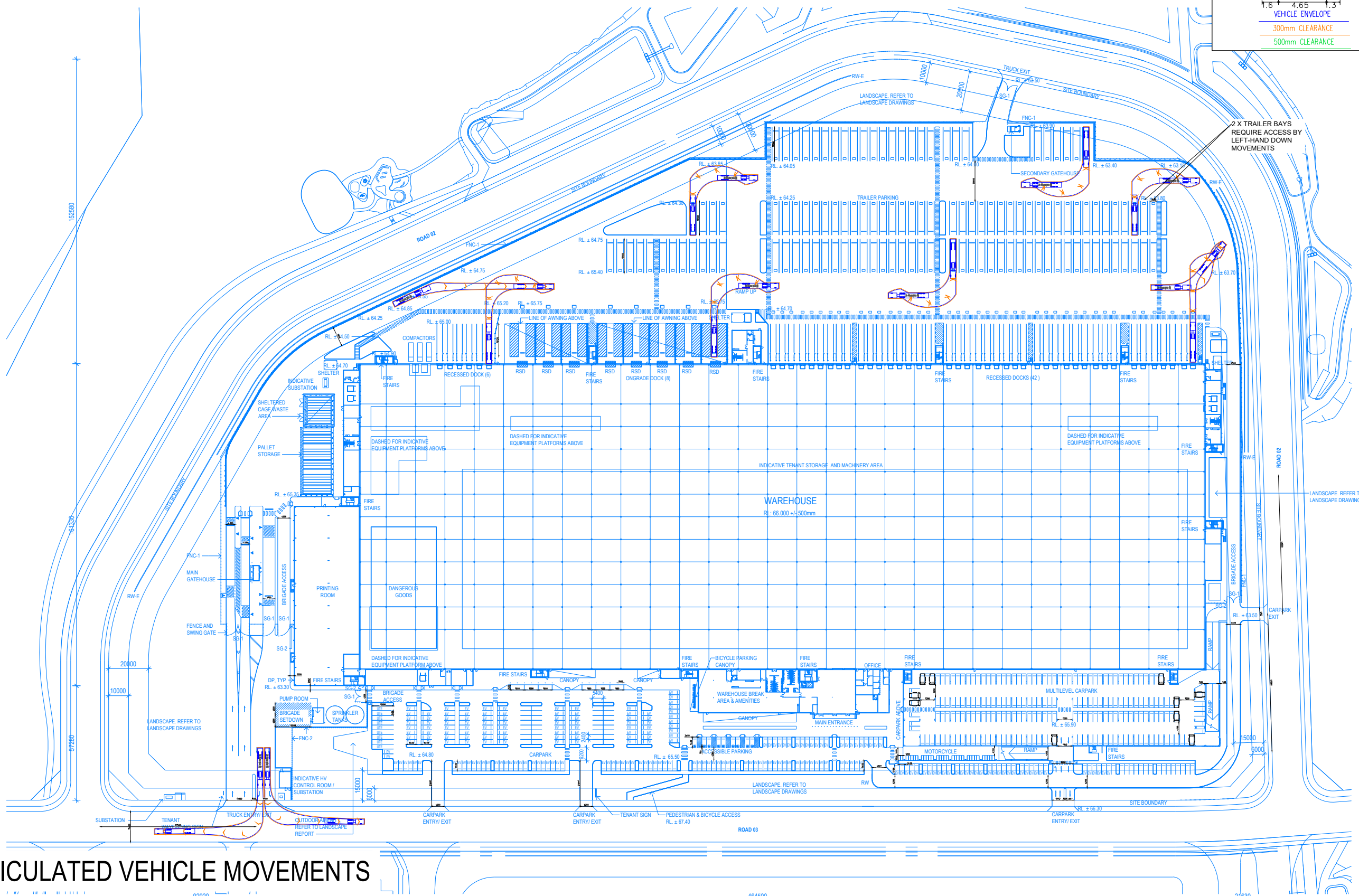
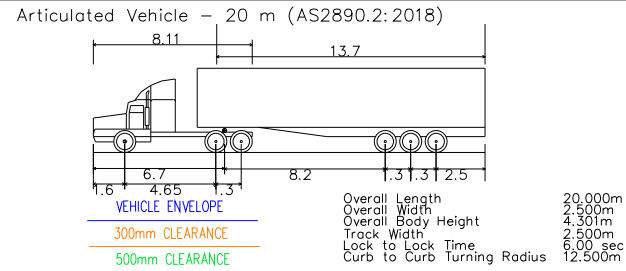


MINOR SPLAY TO LANDSCAPING
TO BE PROVIDED TO
ACCOMMODATE A-DOUBLE
TURN-AROUND MOVEMENT



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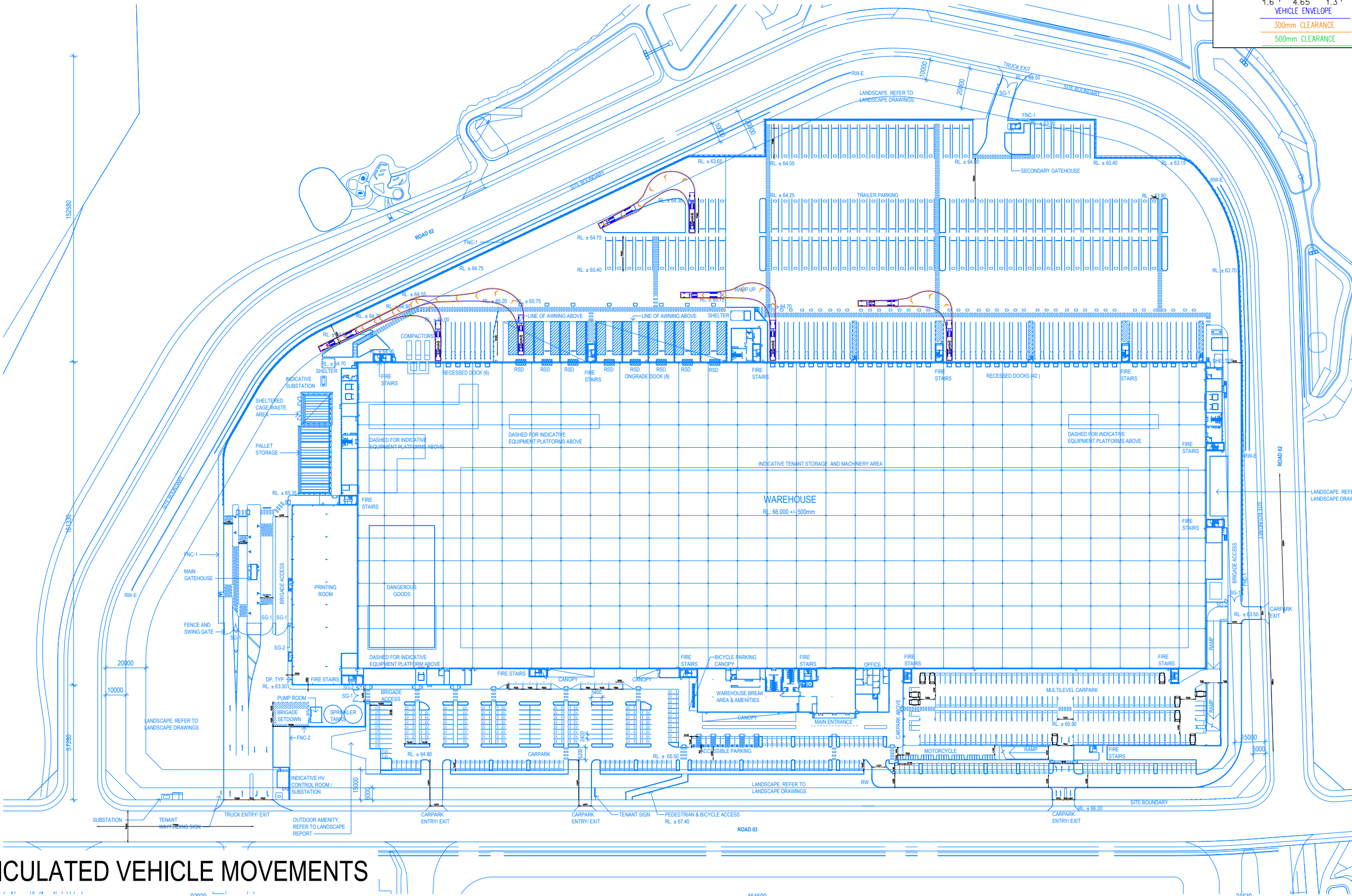
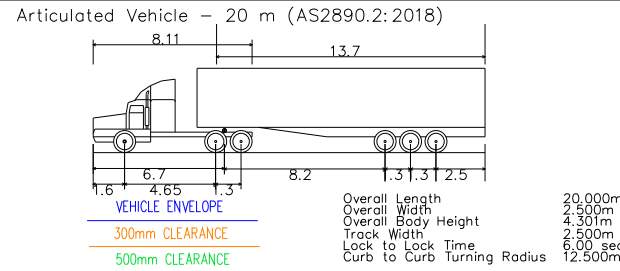
ARTICULATED VEHICLE MOVEMENTS



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	APPROVED BY AR	DATE 08.05.2026	PROJECT P1492G			
	SCALE 1:2000		475 Badgerys Creek Road, Bradfield	FILE NAME AG1492G-01-v05.dwg	SHEET AG03	

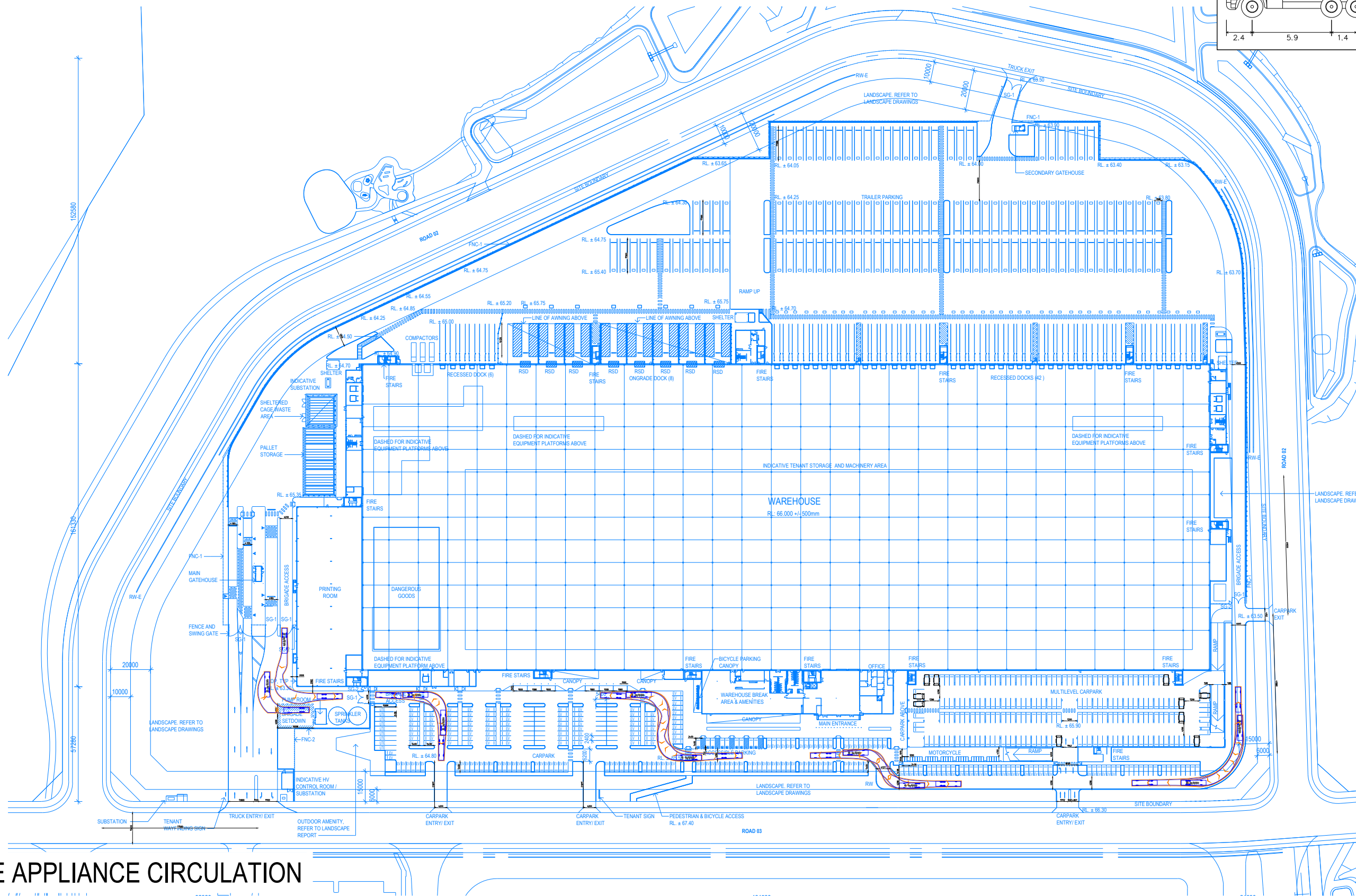
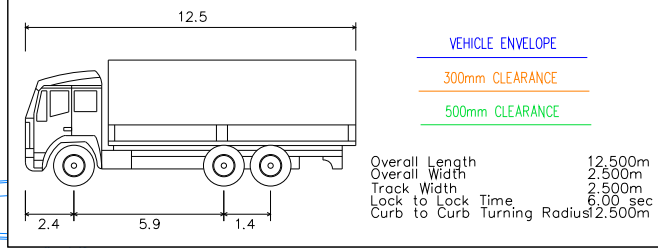
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ARTICULATED VEHICLE MOVEMENTS



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	SCALE 1:2000		475 Badgerys Creek Road, Bradfield	FILE NAME AG1492G-01-v05.dwg	SHEET AG04
				asongroup Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au	

VEHICLE ENVELOPE	
300mm	CLEARANCE
500mm	CLEARANCE
Overall Length	12,500mm
Overall Width	2,500mm
Track Width	2,500mm
Lock to Curb	6,00 sec
Turning Radius	2,500m



FIRE APPLIANCE CIRCULATION

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APPROVED BY AR	DATE 08.05.2026	PROJECT P1492G
SCALE 1:2000		475 Badgerys Creek Road, Bradfield

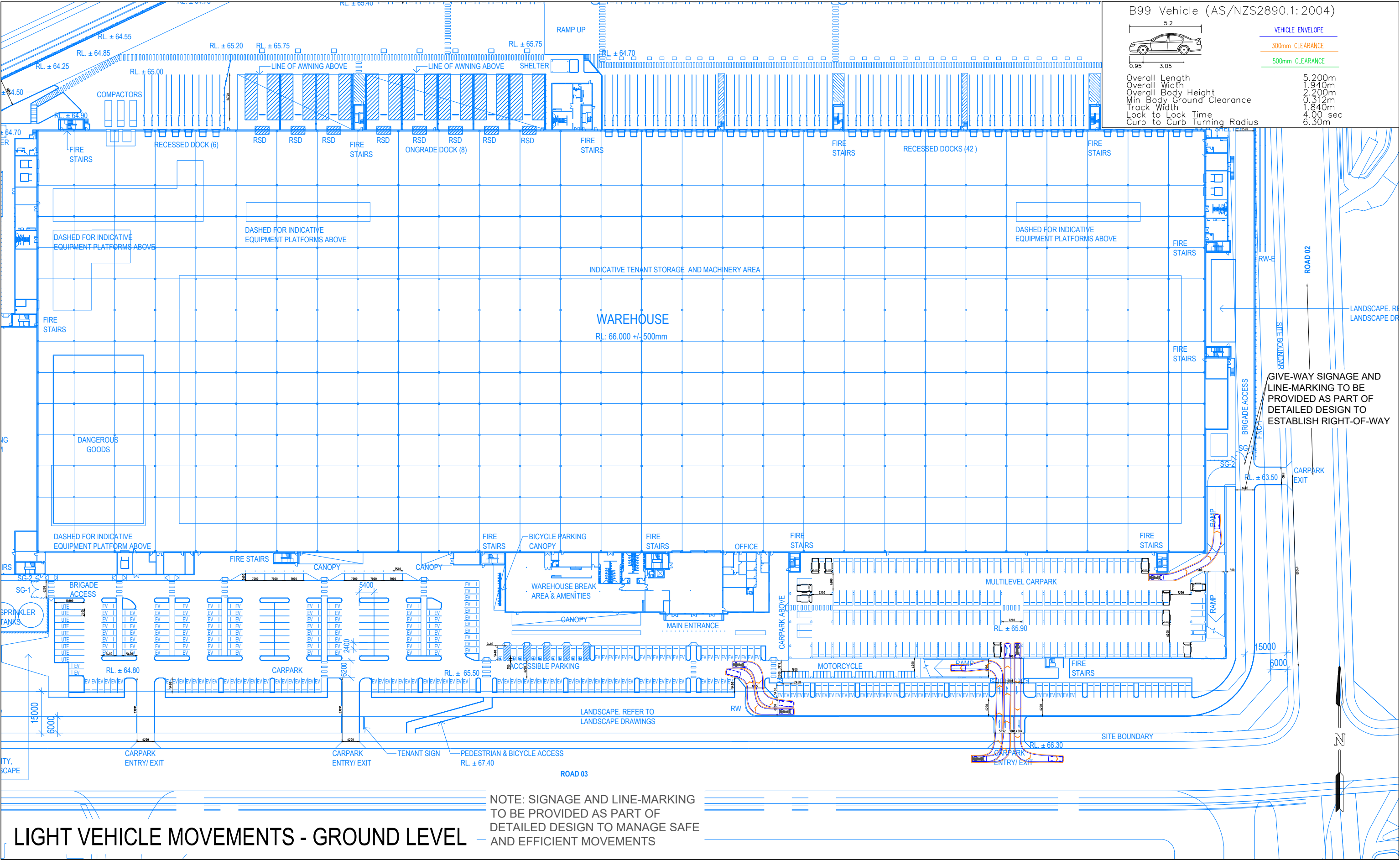
DESIGN REVIEW

FILE NAME AG1492G-01-v05.dwg	SHEET AG05

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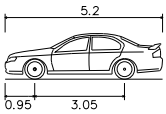
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	SCALE 1:1250		475 Badgerys Creek Road, Bradfield	FILE NAME AG1492G-01-v05.dwg	SHEET AG06
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NOTE: SIGNAGE AND LINE-MARKING
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AND EFFICIENT MOVEMENTS

B99 Vehicle (AS/NZS2890.1:2004)

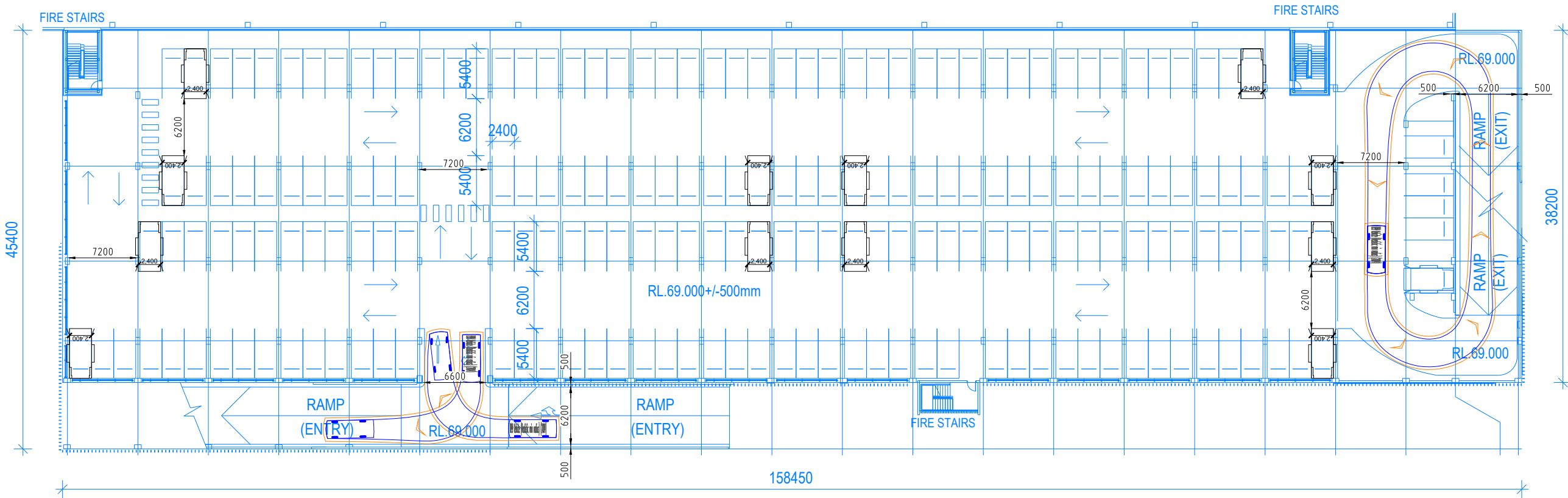


VEHICLE ENVELOPE

300mm CLEARANCE

500mm CLEARANCE

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min. Body Ground Clearance	0.312m
Track Width	1.840m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	6.30m



LIGHT VEHICLE MOVEMENTS - LEVEL C2

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SCALE 1:500		475 Badgerys Creek Road, Bradfield

DOCUMENT INFORMATION
DESIGN REVIEW

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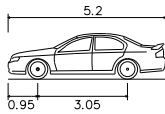
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B99 Vehicle (AS/NZS2890.1:2004)

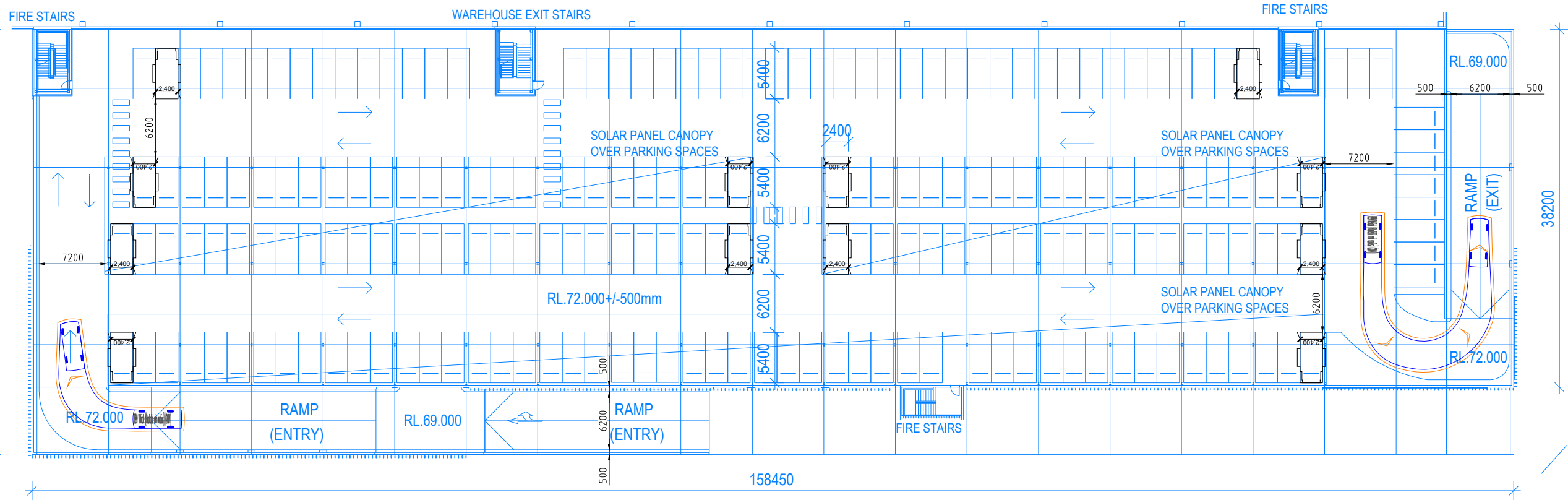


VEHICLE ENVELOPE

300mm CLEARANCE

500mm CLEARANCE

Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 2.200m
Min Body Ground Clearance 0.312m
Track Width 1.840m
Lock to Lock Time 4.00 sec
Curb to Curb Turning Radius 6.30m



LIGHT VEHICLE MOVEMENTS - LEVEL C3

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DESIGN REVIEW

FILE NAME
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