



Leigh Design

waste management plans for all urban developments

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Waste Management Plan



Proposed Development:

218-246 Macaulay Road, North Melbourne, Victoria

Prepared for:

Ceapal Pty Ltd

Document Control

Report Date: 3 April 2023

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WASTE MANAGEMENT SUMMARY

- The Operator, as defined below, shall be responsible for managing the waste system and for developing and implementing safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall deposit sorted waste into the chutes and/or directly into bins (the Operator shall tip bins into the compactors).
- Waste shall be collected at the onsite Loading Bays.
- Council shall collect residential waste.
- A private contractor shall collect commercial waste.

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GLOSSARY

Operator: refers to the Owner, who shall manage site operations with the aid of cleaners and contractors (and if required, delegating waste management responsibilities to commercial tenants).

User: refers to resident/commercial tenants, who shall utilise the waste system.

1 SPACE AND SYSTEM FOR WASTE MANAGEMENT

1.1 Development Description and Use

This 12-storey development shall consist of built to rent apartments and commercial tenancies. Apartment numbers and commercial floor-areas are stated in Table 1.

1.2 Estimated Garbage and Recycling Generation

The following table summarises the waste estimate (m³/week):

Table 1: Waste Estimate

Waste Source	Base Qty (est.)	Garbage	Food	Recyc.	Glass
Apartments (studio)	No. of units = 82	4.92	1.64	4.59	1.97
Apartments (1 bed)	No. of units = 156	9.36	3.12	8.74	3.74
Apartments (2 bed)	No. of units = 132	9.90	3.30	9.24	3.96
Apartments (3 bed)	No. of units = 24	2.16	0.72	2.02	0.86
Sub-Total Residential		21.42	7.14	19.99	8.57
Supermarket	area (m ²) = 2204	8.82	0.88	26.45	0.00
Retail	area (m ²) = 786	13.20	3.30	7.70	3.30
Sub-Total Commercial		22.02	4.18	34.15	3.30
TOTAL (m³/wk)		43.44	11.32	54.14	11.87

Note:

- Residential waste figures are based on Council guidelines. Residential amenity areas (including the Gym/Wellness facility) are included in the above apartment figures.
- Supermarket waste figures are based on discretionary rates from similar facilities.
- For Retail tenements, Council's Café rate has been adopted (tenancy uses may include restaurants, cafés, fast-food, take-away, retail, etc).

1.3 Collection Services

Residential Waste: Municipal waste services shall be provided for the residential component of the development.

Commercial Waste: Municipal services would be insufficient as these are limited to a pair of weekly wheelie bins per tenement. Therefore, a private contractor shall be engaged to collect waste. The Operator shall choose a waste collection provider, negotiate a service agreement, and pay for these services.

Notes:

- Every rateable tenement is liable to pay for municipal charges irrespective of the level of collection services provided by Council.
- Certain waste streams may require for the Operator to engage a private contractor.

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1.4 Location, Equipment, and System Used for Managing Waste

The waste management system is summarised as follows:

- Apartment receptacles for garbage, recycling, glass, and organics.
- Tenancy receptacles at work/amenity areas.
- Waste receptacles located at residential amenity areas.
- Two Garbage Chutes and two Recycling Chutes, each with intakes at residential levels, and Chute Room discharge.
- Residential Bin Store, Hard Waste Room, and Chute Room at Ground Floor.
- Commercial Bin Store at Ground Floor.
- Supermarket Bin Area with cardboard baler at Ground Floor.
- Transportable garbage and recycling compactors with bin lifter at Ground Level.
- Bins (kept within the above waste areas - refer to Table 2).

The various collection waste-streams are summarised as follows:

Garbage: General waste shall be placed in tied plastic bags prior to disposing into the chutes, bins, and compactor.

Recycling: Recyclables shall be commingled into a single type of chute, bin, and compactor (for paper, cardboard, glass, aluminium, steel, and plastics). However, if glass separation is required in future, dedicated glass bins shall be provided by the Operator (see Table 2).

Garden Waste: Garden organics shall be collected and disposed by the landscape maintenance contractor.

Food Organics: Users shall place organic waste into food bins (a small caddy shall be employed at each tenement). Only Council approved compostable liners may be considered for bins and caddies.

Other Waste Streams: The disposal of hard/electronic/liquid and other wastes (polystyrene, batteries, paint, chemicals and detox items, etc) shall be organised with the assistance of the Operator. In particular e-waste must not be disposed in landfill.

An area shall be designated for hard waste. The Operator shall book at-call hard waste collections. Also, the Operator shall organise a charity bin. Charities may also collect unwanted items that are in good condition.

The supermarket and food tenants shall arrange the storage of any used cooking oil and its collection by a recycler. The Operator shall organise Grease Interceptor Trap servicing.

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The following table summarises bin quantity/capacity, collection frequency, and area requirements (based on Table 1):

Table 2: Bin Schedule and Collection Frequency

Waste Source	Waste Stream	Bin Qty	Bin Litres	Collections per Week	Net Area m ²
Residential (shared system)	Garbage (3:1)	8m ³ Compactor		1	20.0
	Comm. Recyc. (3:1)	10m ³ Compactor		1	20.0
	Spare Garb. Bins	3	1,100	-	4.8
	Spare Recyc. Bins	3	1,100	-	4.8
	Food Organics	10	240	3	5.0
	Future Glass	12	240	3	6.0
	Charity Bin	1	1,100	At Call	1.6
	E-Waste Bin	1	240	At Call	0.5
	Hard/Other Waste	-	-	2/Month	4.0
Supermarket (dedicated system)	Garbage	3	1,100	3	4.8
	Food Organics	2	240	3	1.0
	Recycling	2	240	3	1.0
	Cardboard (baler and 4 pallets)			3	12.0
	Hard/E-Waste/Other	-	-	At Call	1.5
Commercial (shared system)	Garbage	5	1,100	3	8.0
	Food Organics	5	240	3	2.5
	Recycling	3	1,100	3	4.8
	Future Glass	5	240	3	2.5
	Hard/E-Waste/Other	-	-	At Call	3.0
Net Waste Storage Area (excludes circulation), m²:					107.8

Notes:

- (3:1) denotes the nominal compaction ratio.
- The above compactor and bin areas include nominal clearances.
- Council shall collect a max. 4m³ volume of residential hard waste two times per month.
- Council shall provide the following 240L residential bins: E-waste, Food Organics, and future Glass.
- The Operator shall provide the above 1100L residential bins and all commercial bins to receive waste from the chutes and from manual disposals by residents and commercial tenants.
- The Operator shall source the charity bin.
- Compactors shall be sourced by the Operator in accordance with specifications from Council and/or the waste collector (transportable compactors shall be adopted). Compactor selection shall take into consideration height clearances at the collection point and along truck travel zones. The Operator shall be responsible for ongoing maintenance, cleaning, and replacements. Also, compactor clearing shall occur during off-peak waste disposal periods.

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1.5 Planning Drawings, Waste Areas, and Management of the Waste System

The drawings illustrate sufficient space for onsite waste storage, as required by the above schedule. Refer to the enclosed drawings.

Notwithstanding the above, collection days shall be staged appropriately and the Operator shall stipulate procedures for effective management of the available space.

1.6 Collection Bin Information

The following bins shall be utilised (see Sect. 4.3 for signage requirements):

Table 3: Bin Details

Capacity (litres)	Height (mm)	Width (across front, mm)	Depth (side on, mm)	Empty Weight (kg)	Average* Gross Weight (kg)
240	1060	585	730	13	45
1100	1330	1240	1070	65	210

Notes:

- * = Average Gross Weight is based on domestic waste studies (which vary subject to locality and waste-type). Expect greater weight for wet or compacted waste.
- Use the above details as a guide only – variations will occur. The above is based on Sulo plastic (HDPE) flat-lid bins. Also, steel 1100L bins could be adopted.
- Also, bins that receive waste under the chutes shall be reinforced to withstand loads from waste falling at high speed.

Table 4: Melbourne Colour Coding

Bin	Garbage	Recycling	Glass	Food
Lid	Red	Yellow	Purple	Lime
Body	Black	Black	Black	Black

Note: For private bins, AS4123.7 bin colours can be adopted. Private bins shall be labelled to identify the waste generator and site address.

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2 ACCESS FOR USERS, COLLECTORS, AND COLLECTION VEHICLES

2.1 User Access to Waste Facilities

Residents shall dispose sorted garbage and recyclables via dedicated chutes, in accordance with instructions from the chute supplier. For wastes unsuitable for chute disposal, residents shall transfer sorted waste directly to the Residential Bin Store and Hard Waste Room (access via lift/stairs).

Commercial tenants shall dispose sorted waste into designated bins (access via the lift, and if required, using a suitable trolley). Similarly, the Operator shall maintain waste receptacles from amenity areas.

The Bin Stores shall be accessible to residents and commercial tenants (access to chute discharge and compaction areas shall be restricted to trained personnel, unless escorted by the Operator).

Note: The Operator shall have access to the waste areas to rotate the bins, ensuring that empty bins are available along the circulation area so that users are able to reach them. Also, the Operator shall monitor the filling of the compactors (and the bins), changing bins when full and transferring/tipping bins into the compactors as required.

2.2 Collection Arrangements and Access to Waste Facilities

- Waste shall be collected at the onsite Loading Bay.
- Plastic bins (240-1100L) shall be collected by rear-lift vehicles (nom. 8.8m long, 4m operational height, and 24 tonnes gross vehicle mass). A similar size vehicle shall be employed to collect hard/e-waste and cardboard bales.
- Compactors (and/or associated containers) shall be collected by a matching hook-lift vehicle (nom. 8.9m long with the compactor onboard, approx. 4.5m operational height for articulated hooks and chamfered compactors, approx. 4.0m driving height, and 30 tonnes gross vehicle mass). The truck needs to be aligned with the longitudinal axis of each compactor and prop 1m in front.
- A suitable Dock Hoist or Scissor Lift shall be provided for vertical waste transfers between the loading bay level and the building's service passage.
- The Operator shall coordinate hard waste collections with collectors (as well as commercial bins, charity, and other minor waste streams), placing each of these wastes at the Loading Bay's holding area in coordination with each collection.
- As stated in the enclosed Section, a minimum height clearance of 4.5m shall be provided in the Loading Bays, including under the entry roller door.
- The enclosed drawings illustrate the waste system and internal waste transfer paths. Also, the enclosed truck swept paths illustrate truck access.

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3 AMENITY, LOCAL ENVIRONMENT, AND FACILITY DESIGN

3.1 Noise Minimisation Initiatives

- Collection bins shall feature rubber wheels for quiet rolling during transfers.
- The waste system and collections shall meet relevant acoustic requirements.
- Local laws shall be observed for all operations in public and private areas.
- Waste collection times shall be as per Council's local laws. Also, the collector shall protect the acoustic amenity by minimising noise during the collection.

3.2 Litter Reduction and Prevention of Stormwater Pollution

The Operator shall be responsible for:

- Promoting adequate waste disposal into the bins and compactors (to avoid waste-dumping and spillages).
- Securing the waste areas (whilst affording access to users/staff/contractors).
- Preventing overfilled bins, keeping lids closed and bungs leak-free.
- Abating any site litter and taking action to prevent dumping and/or unauthorised use of waste areas.
- Requiring the collection contractor to clean-up any spillage that might occur when clearing bins.

The above will minimise the dispersion of site litter and prevent stormwater pollution (thus avoiding impact to the local amenity and environment).

3.3 Ventilation, Washing, and Vermin-Prevention Arrangements

Waste areas shall feature:

- Ventilation in accordance with Australian Standard AS1668. For chute ventilation, a fan with riser to a rooftop exhaust shall be utilised.
- Impervious flooring (also, smooth, slip-resistant, and appropriately drained). Also, impervious walls shall be provided near each chute discharge.
- A graded bin wash area, hosecock, hose, and a suitable floor-waste connected in accordance with relevant authority requirements. The bin and wash areas may overlap, as stored bins can be moved so that a bin can be washed.
- A water-flushing nozzle with accessible water cock shall be provided at the head of each chute. Include a floor waste and hosecock near each chute outlet.

The Operator shall regularly clean waste areas/equipment. Also, access doors and bin-lids shall be kept closed.

Compactors shall be washed off-site at regular intervals (increasing the wash frequency during warm months). Odour control equipment and/or refrigerated compactors shall be considered. Also, compactors require suitable floor drainage.

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3.4 Design and Aesthetics of Waste Storage Areas and Equipment

Waste shall be placed within collection bins and stored in designated onsite areas (hidden from external view). Following waste collection activities, bins shall be returned to the storage areas as soon as practicable.

Waste facilities shall be constructed of durable materials and finishes, and maintained to ensure that the aesthetics of the development are not compromised. These facilities and associated passages shall be suitably illuminated (this provides comfort, safety, and security to users, staff, and contractors). Access doors shall feature keyless opening from within.

Chutes, associated shafts, and discharge into the bins shall be sized and designed as recommended by a reputable chute manufacturer (chutes are proprietary items). The chute supplier shall fix safe-operating instructions to each intake-door and place a warning sign on each chute outlet/compactor.

For improved safety, each chute outlet shall be shrouded with a suitable rubber skirt and designed to minimise the effect of falling waste into the associated bin (and to stop dispersion of debris). Also, access to each chute outlet shall be restricted to trained personnel only (Chute Room shall be kept locked).

Each baler, compactor, and bin lifter shall be designed as recommended by a reputable manufacturer (these units are proprietary items). The supplier shall provide training to all users and include appropriate safety features and operating instructions to ensure safe operation and prevent unauthorised use. Access to compaction areas shall be restricted to trained personnel only.

The design and construction of waste facilities and equipment shall conform to the Building Code of Australia, Australian Standards, and local laws.

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4 MANAGEMENT AND SUSTAINABILITY

4.1 Waste Sorting, Transfer, and Collection Responsibilities

Garbage shall be placed within tied plastic bags prior to transferring into the collection bins, chute, and/or compactor. Cardboard shall be flattened and recycling containers un-capped, drained, and rinsed prior to disposal into the appropriate bins, chute, baler, and/or compactor. Bagged recycling is not permitted.

Refer to Section 1.4 for all other waste streams and details of the waste system. Also, Section 2 outlines waste transfer requirements and collection arrangements.

4.2 Facility Management Provisions to Maintain & Improve the Waste System

The Operator shall be responsible for managing the waste system and for developing and implementing safe operating procedures (refer to the glossary in page 2).

It shall be the responsibility of the Operator to maintain all waste areas and components, to the satisfaction of users, staff, and the relevant authority (users shall maintain their internal waste receptacles).

The Operator shall ensure that maintenance and upgrades are carried-out on the facility and components of the waste system. When required, the Operator shall engage an appropriate contractor to conduct services, replacements, or upgrades.

4.3 Arrangements for Protecting Waste Equipment from Theft and Vandalism

It shall be the responsibility of the Operator to protect the equipment from theft and vandalism. This shall include the following initiatives:

- Secure the waste areas.
- Label the bins according to property address.
- Waste shall be collected within the subject land.

4.4 Arrangements for Bins/Equipment Labelling and Ensuring Users and Staff are Aware of How to Use the Waste System Correctly

- The Operator shall provide appropriate signage for the bins. Signage is available at the following internet address: www.sustainability.vic.gov.au.
- For user safety when disposing waste, the Operator shall develop and provide safety instructions.
- The Operator shall publish/distribute “house rules” and educational material to:
 - Inform users/staff about the waste management system and the use/location of the associated equipment (provide the summary in page 2 of this report).
 - Improve facility management results (lessen equipment damage and chute blockages, reduce littering, and achieve cleanliness).
 - Advise users/staff to sort and recycle waste with care to reduce contamination of recyclables.

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4.5 Sustainability and Waste Avoidance/Reuse/Reduction Initiatives

The *Environment Protection Amendment Act 2018* (and the principal EPA Act of 2017) includes fundamentals of environment protection and guidance for waste management decision making. Also, the *Sustainability Victoria Act 2005* established Sustainability Victoria as the statutory authority for delivering programs on integrated waste management and resource efficiency.

From a design perspective, the development shall support the acts by providing an adequate waste system with ability to sort waste.

The Operator shall promote the observance of the Acts (where relevant and practicable) and encourage users and staff to participate in minimising the impact of waste on the environment. For improved sustainability, the Operator shall consider the following:

- Observe the *Environment Protection Amendment Act 2018* principle of waste management hierarchy, which states that waste should be managed in accordance with the following order of preference, so far as reasonably practicable: a) avoidance, b) reuse, c) recycling, d) recovery of energy, e) containment, and f) waste disposal.
- Peruse the Sustainability Victoria website: www.sustainability.vic.gov.au.
- Participate in Council and in-house programs for waste minimisation.
- Establish waste reduction and recycling targets; including periodic waste audits, keeping records, and monitoring of the quantity of recyclables found in landfill-bound bins (sharing results with users/staff).

4.6 Waste Management Plan Revisions

For any future appropriate council request, changes in legal requirements, changes in the development's needs and/or waste patterns (waste composition, volume, or distribution), or to address unforeseen operational issues, the Operator shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required):

- A waste audit and new waste strategy.
- Revision of the waste system (bin size/quantity/streams/collection frequency).
- Re-education of users/staff.
- Revision of the services provided by the waste collector(s).
- Any necessary statutory approval(s).

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5 SUPPLEMENTARY INFORMATION

- The Operator shall observe local laws and ensure that bins aren't overfilled or overloaded.
- Waste incineration devices are not permitted, and offsite waste treatment and disposal shall be carried-out in accordance with regulatory requirements.
- For bin traffic areas, either level surfaces (smooth and without steps) or gentle ramps are recommended, including a roll-over kerb or ramp. Should ramp gradients, bin weight, and/or distance affect the ease/safety of bin transfers, the Operator shall consider the use of a suitable tug.
- The Operator and waste collector shall observe all relevant OH&S legislation, regulations, and guidelines. The relevant entity shall define their tasks and:
 - Comply with Worksafe Victoria's Occupational Health and Safety Guidelines for the Collection, Transport and Unloading of Non-hazardous Waste and Recyclable Materials (June 2003).
 - Assess the Manual Handling Risk and prepare a Manual Handling Control Plan for waste and bin transfers (as per regulatory requirements and Victorian COP for Manual Handling).
 - Obtain and provide to staff/contractors equipment manuals, training, health and safety procedures, risk assessments, and adequate personal protective equipment (PPE) to control/minimise risks/hazards associated with all waste management activities. As a starting point, these documents and procedures shall address the following:

Task (to be confirmed)	Hazard (TBC)	Control Measures (TBC)
Sorting/disposing waste and cleaning the waste system	Bodily puncture. Biological & electrical hazards	Personal protective equipment (PPE). Develop a waste-sorting procedure
Waste/bin manual handling	Sprain, strain, crush	PPE. Maintain bin wheel-hubs. Limit bin weight. Provide mechanical assistance to transfer bins
Chute discharge and baler/compactor operation	Strike & debris from falling waste, and crush/strike/cut by moving bin system and shear points	PPE, staff training, signage and warning system, maintain access restrictions. Include a suitable curtain/skirt around the discharge zone of the chute and interlocked hoppers to the compactors
Bin transfers and emptying into truck	Vehicular strike, run-over	PPE. Develop a Hazard Control Plan for transfers and collections. Maintain visibility. Use a mechanical bin-tipper
Truck access (reversing & manoeuvring)	Vehicular incident, strike, run-over	PPE. Use a trained spotter. Develop a truck-manoevring and traffic-control procedure

Note: The above shall be confirmed by a qualified OH&S professional who shall also prepare site-specific assessments, procedures, and controls (refer to Section 6).

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6 CONTACT INFORMATION

City of Melbourne (local council), ph 03 9658 9658

City Wide Waste (private waste collector), ph 03 9261 5000

Veolia (private waste collector), ph 132955

PuraAir (odour control equipment supplier), ph 1300 972 736

FJP Safety Advisors Pty Ltd (OH&S consultant), ph 03 9255 3660

Electrodrive Pty Ltd (tug & trailer supplier – for bin transfers), ph 1300 934 471

Sabco Commercial (supplier of cleaner's trolleys), ph 1800 066 522

Sulo MGB Australia (bin supplier), ph 1300 364 388

One Stop Garbage Shop (bin supplier), ph 03 9338 1411

Wastedrive Equipment (steel bin supplier), ph 02 9630 9333

Wastech Engineering Pty Ltd (chute and compactor supplier), ph 1800 465 465

ASI JD MacDonald Pty Ltd (chute and compactor supplier), ph 03 8558 7200

Note: The above includes a complimentary listing of contractors and equipment suppliers. The stakeholders shall not be obligated to procure goods/services from these companies. Leigh Design does not warrant (or make representations for) the goods/services provided by these suppliers.

7 LIMITATIONS

The purpose of this report is to document a Waste Management Plan, as part of a Planning Permit Application.

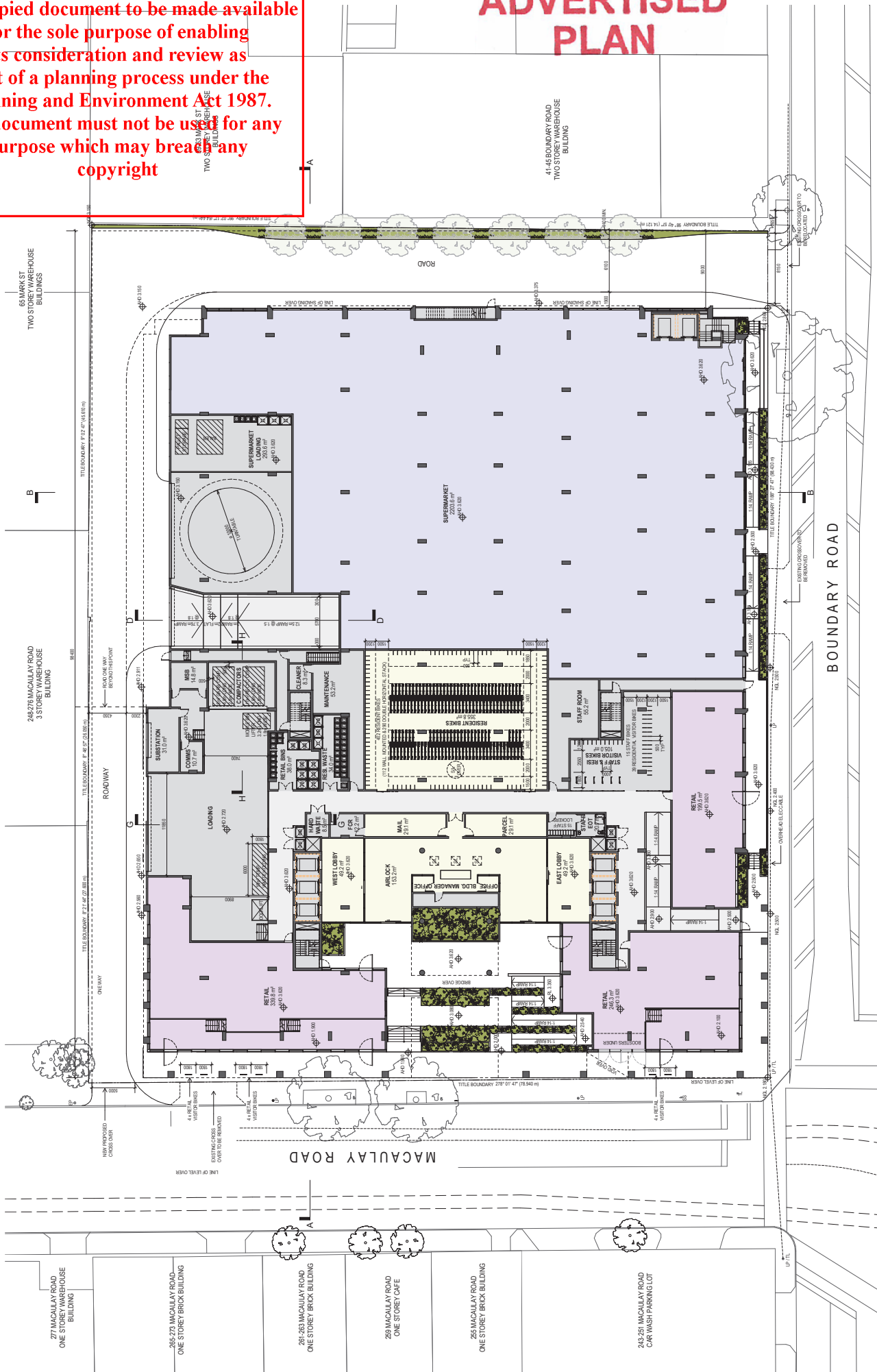
This report is based on the following conditions:

- Ongoing use of the development (excludes demolition/construction phases). In particular, for occupation and fit-out phases, the Operator shall determine specific waste procedures.
- Drawings and information supplied by the project architect.
- The figures presented in this report are estimates only. The actual amount of waste will depend on the development's occupancy rate and waste generation intensity, the user's disposition toward waste and recycling, and the Operator's approach to waste management. The Operator shall make adjustments, as required, based on actual waste volumes (if the actual waste volume is greater than estimated, then the number of bins and/or the number of collections per week shall be increased, STCA).
- This report shall not be used to determine/forecast operational costs, or to prepare feasibility studies, or to document operational/safety procedures.

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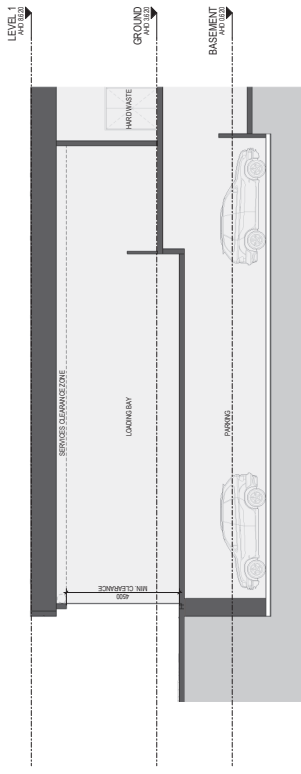
TOWN PLANNING
 Revision / A 10/09/22 Town Planning
 B 09/09/22 Revised Town Planning
 C 01/12/22 Revised Town Planning
 01/12/23 RPI Response
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Legend
 NOTE REFER TO LANDSCAPE DRAWINGS BY TRACT FOR LANDSCAPE SKETCH
 LEGEND
 A. VERTICAL HATCH PATTERNS BY TRACT FOR LANDSCAPE SKETCH
 B. WALL
 C. WINDOW
 D. DOOR
 E. ELECTRICAL
 F. FLOOR
 G. GLASS
 H. HARDWARE
 I. INSULATION
 J. JOINT
 K. KITCHEN
 L. LAUNDRY
 M. MANTLE
 N. NESTING
 O. OFFICE
 P. POWER POLE
 Q. QUARTERS
 R. RAMP
 S. STREET LIGHT
 T. TERRACE
 U. UTILITY
 V. VENTILATION
 W. WALL
 X. WINDOW
 Y. YARD
 Z. ZONE

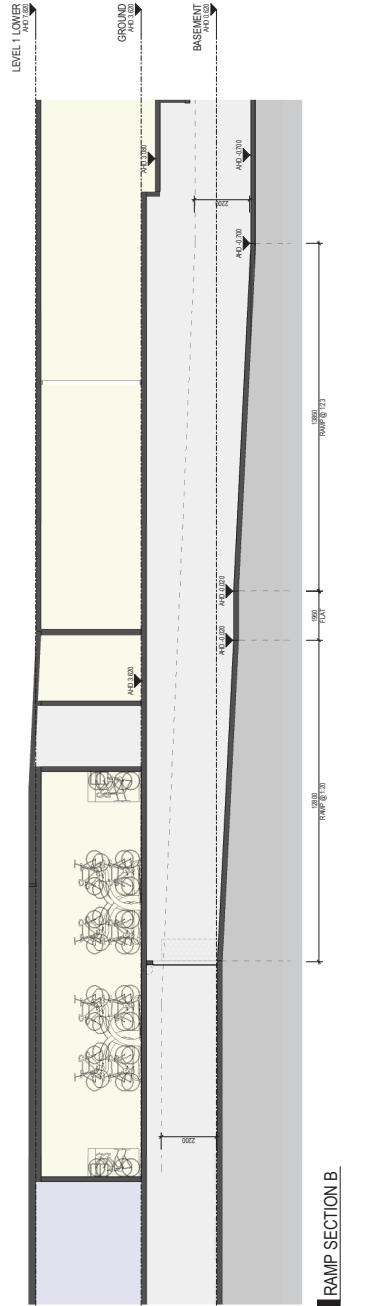
Macaulay Road
 276-340 Macaulay Road, North Melbourne
 Project No. / 220068
 Drawing No. / TP01.02
 Scale @ 1/4" = 1' : 200
 Author / JR/LB
 Drawing No. / TP01.02
 Drawing Date / 1/12/23

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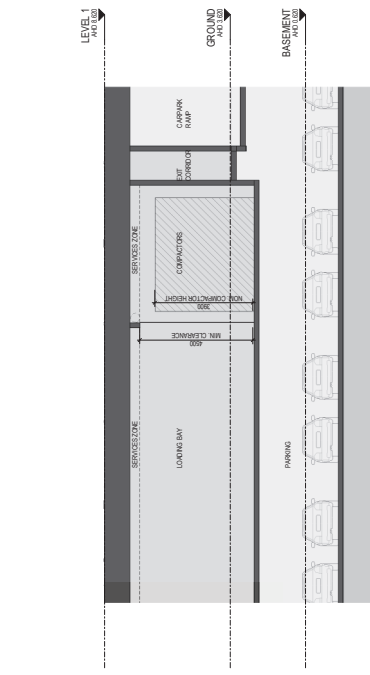
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LOADING BAY CLEARANCE SECTION



RAMP SECTION A

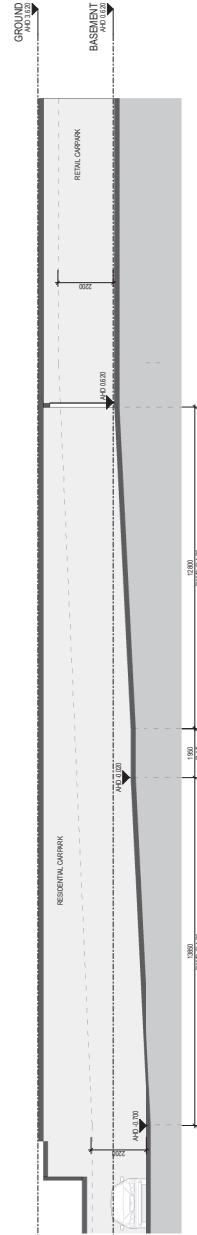


COMPACTOR CLEARANCE SECTION

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RAMP SECTION B



RAMP SECTION C

TOWN PLANNING

24.02.23 RPT Response

JR

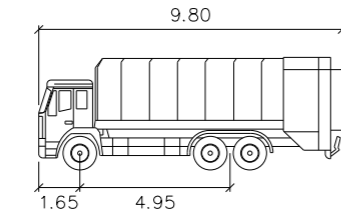
NOTE: REFER TO LANDSCAPE DRAWINGS BY TRACT FOR LANDSCAPE DESIGN

Legend	ABBREVIATION	DESCRIPTION
AL	ASBESTOS	ASBESTOS
AN	ANTENNA	ANTENNA
AR	ARTWORK	ARTWORK
AV	AIR VENT	AIR VENT
BA	BARRIER	BARRIER
BE	BENCH	BENCH
BI	BICYCLE	BICYCLE
BO	BOULEVARD	BOULEVARD
BR	BROW	BROW
BU	BURDEN	BURDEN
CA	CARPARK	CARPARK
CB	CANOPY	CANOPY
CC	CONCRETE	CONCRETE
CD	CONDUIT	CONDUIT
CE	CERAMIC	CERAMIC
CF	CERAMIC TILE	CERAMIC TILE
CG	CONCRETE WALL	CONCRETE WALL
CH	CHIMNEY	CHIMNEY
CI	CORNER	CORNER
CJ	CORNER	CORNER
CK	CORNER	CORNER
CL	CORNER	CORNER
CM	CORNER	CORNER
CO	CORNER	CORNER
CP	CORNER	CORNER
CQ	CORNER	CORNER
CR	CORNER	CORNER
CS	CORNER	CORNER
CT	CORNER	CORNER
CU	CORNER	CORNER
CV	CORNER	CORNER
CW	CORNER	CORNER
CX	CORNER	CORNER
CY	CORNER	CORNER
CZ	CORNER	CORNER
DA	CORNER	CORNER
DB	CORNER	CORNER
DC	CORNER	CORNER
DD	CORNER	CORNER
DE	CORNER	CORNER
DF	CORNER	CORNER
DG	CORNER	CORNER
DH	CORNER	CORNER
DI	CORNER	CORNER
DJ	CORNER	CORNER
DK	CORNER	CORNER
DL	CORNER	CORNER
DM	CORNER	CORNER
DN	CORNER	CORNER
DO	CORNER	CORNER
DP	CORNER	CORNER
DQ	CORNER	CORNER
DR	CORNER	CORNER
DS	CORNER	CORNER
DT	CORNER	CORNER
DU	CORNER	CORNER
DV	CORNER	CORNER
DW	CORNER	CORNER
DX	CORNER	CORNER
DY	CORNER	CORNER
DZ	CORNER	CORNER
EA	CORNER	CORNER
EB	CORNER	CORNER
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ED	CORNER	CORNER
EE	CORNER	CORNER
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EL	CORNER	CORNER
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FD	CORNER	CORNER
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FF	CORNER	CORNER
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FI	CORNER	CORNER
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FK	CORNER	CORNER
FL	CORNER	CORNER
FM	CORNER	CORNER
FN	CORNER	CORNER
FO	CORNER	CORNER
FP	CORNER	CORNER
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FR	CORNER	CORNER
FS	CORNER	CORNER
FT	CORNER	CORNER
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FV	CORNER	CORNER
FW	CORNER	CORNER
FX	CORNER	CORNER
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GF	CORNER	CORNER
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HC	CORNER	CORNER
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HG	CORNER	CORNER
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IC	CORNER	CORNER
ID	CORNER	CORNER
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IH	CORNER	CORNER
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JI	CORNER	CORNER
JJ	CORNER	CORNER
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JM	CORNER	CORNER
JN	CORNER	CORNER
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JR	CORNER	CORNER
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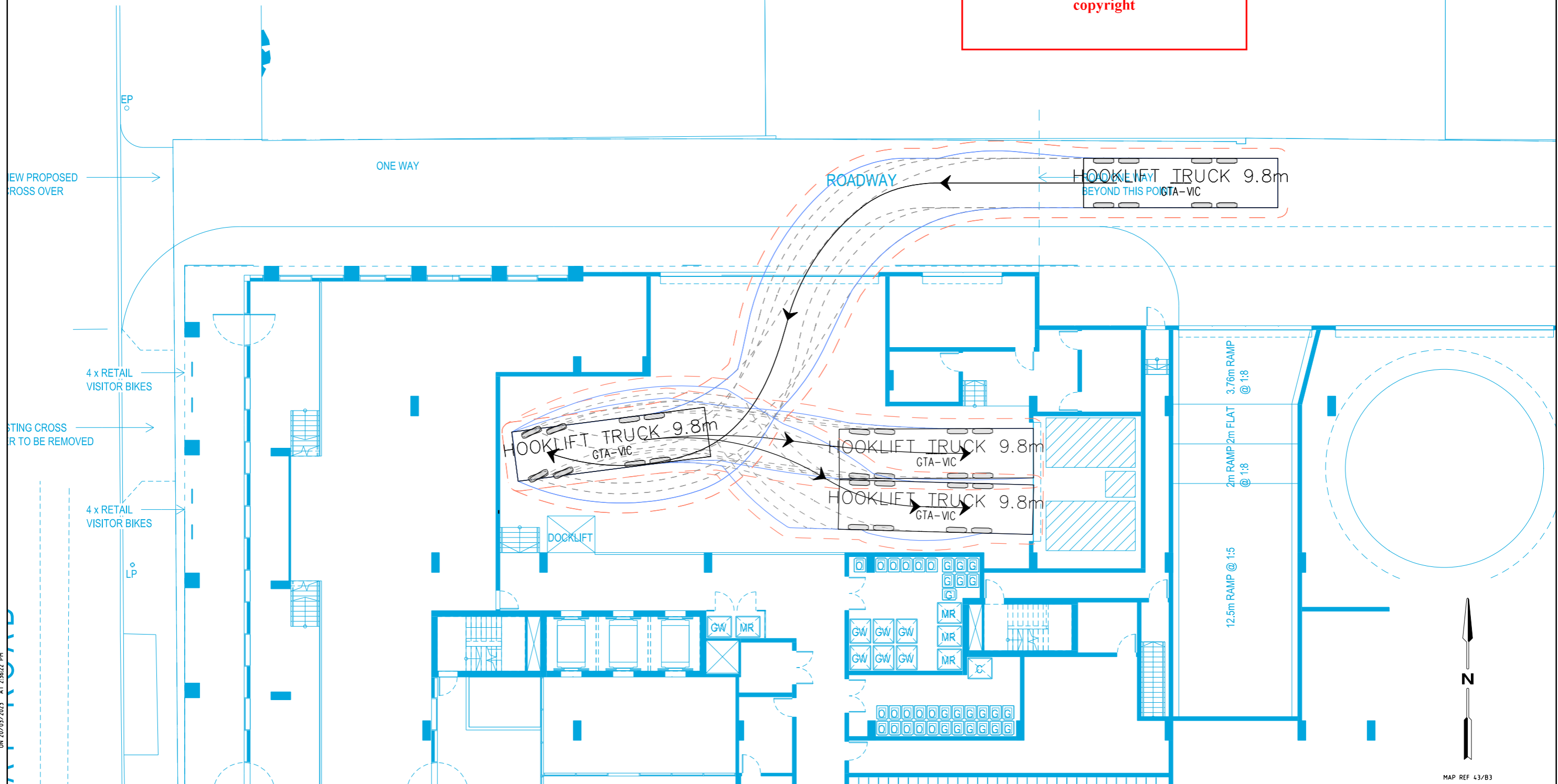
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SWEPT PATH KEY	
	VEHICLE CENTRE LINE
	VEHICLE TYRE PATH
	VEHICLE BODY PATH
	500mm CLEARANCE FROM VEHICLE BODY
ASSUMED SPEED 5km/h	



HOOKLIFT TRUCK 9.8m

Width	: 2.50	meters
Track	: 2.50	
Lock to Lock Time	: 6.0	
Steering Angle	: 27.1	



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PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE
APPROXIMATE ONLY AND THEIR EXACT POSITION
SHOULD BE PROVEN ON SITE. NO GUARANTEE IS
GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DESIGNED
P. NGUYEN

APPROVED BY
J. SELLARS

DESIGN CHECK
J. SELLARS

DATE ISSUED
20 MARCH 2023

SCALE
A3 1:200

CAD FILE NO.
300304476-AT01-P4.dgn

218-246 MACAULAY ROAD
NORTH MELBOURNE

SWEPT PATH ASSESSMENT
DRAWING NO. 300304476-AT01-09

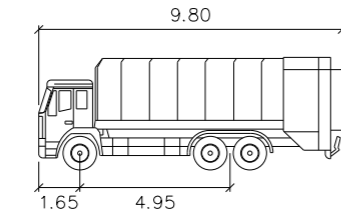
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SWEPT PATH KEY

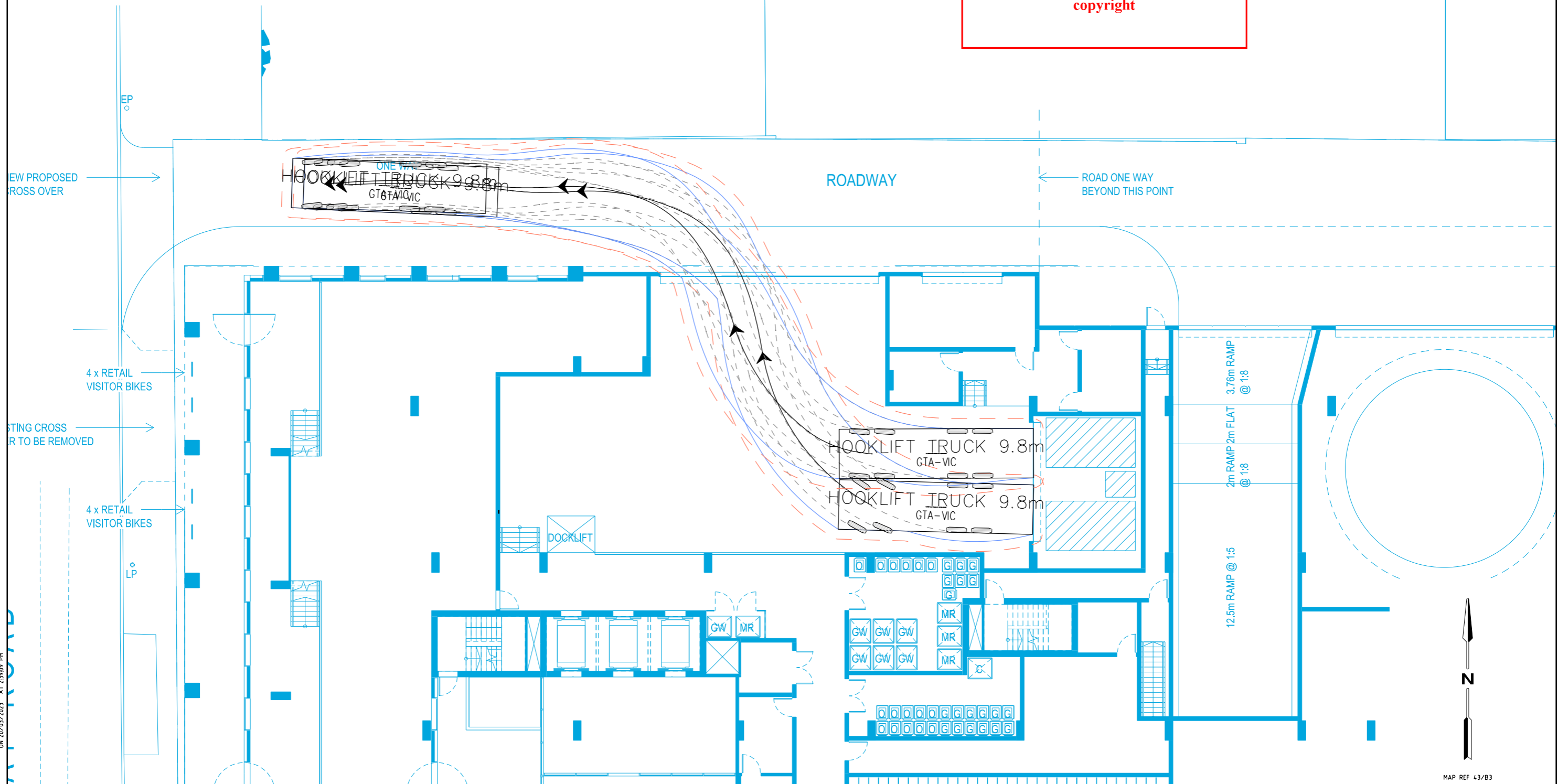
- VEHICLE CENTRE LINE
- - VEHICLE TYRE PATH
- VEHICLE BODY PATH
- - 500mm CLEARANCE FROM VEHICLE BODY

ASSUMED SPEED 5km/h

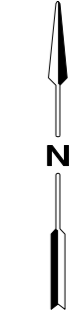


HOOKLIFT TRUCK 9.8m

Width : 2.50 meters
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 27.1



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MAP REF 43/B3



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 SHOULD BE PROVEN ON SITE. NO GUARANTEE IS
 GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DESIGNED
P. NGUYEN

APPROVED BY
J. SELLARS

DESIGN CHECK
J. SELLARS

DATE ISSUED
20 MARCH 2023

SCALE
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CAD FILE NO.
300304476-AT01-P4.dgn

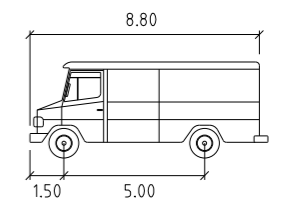
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NORTH MELBOURNE

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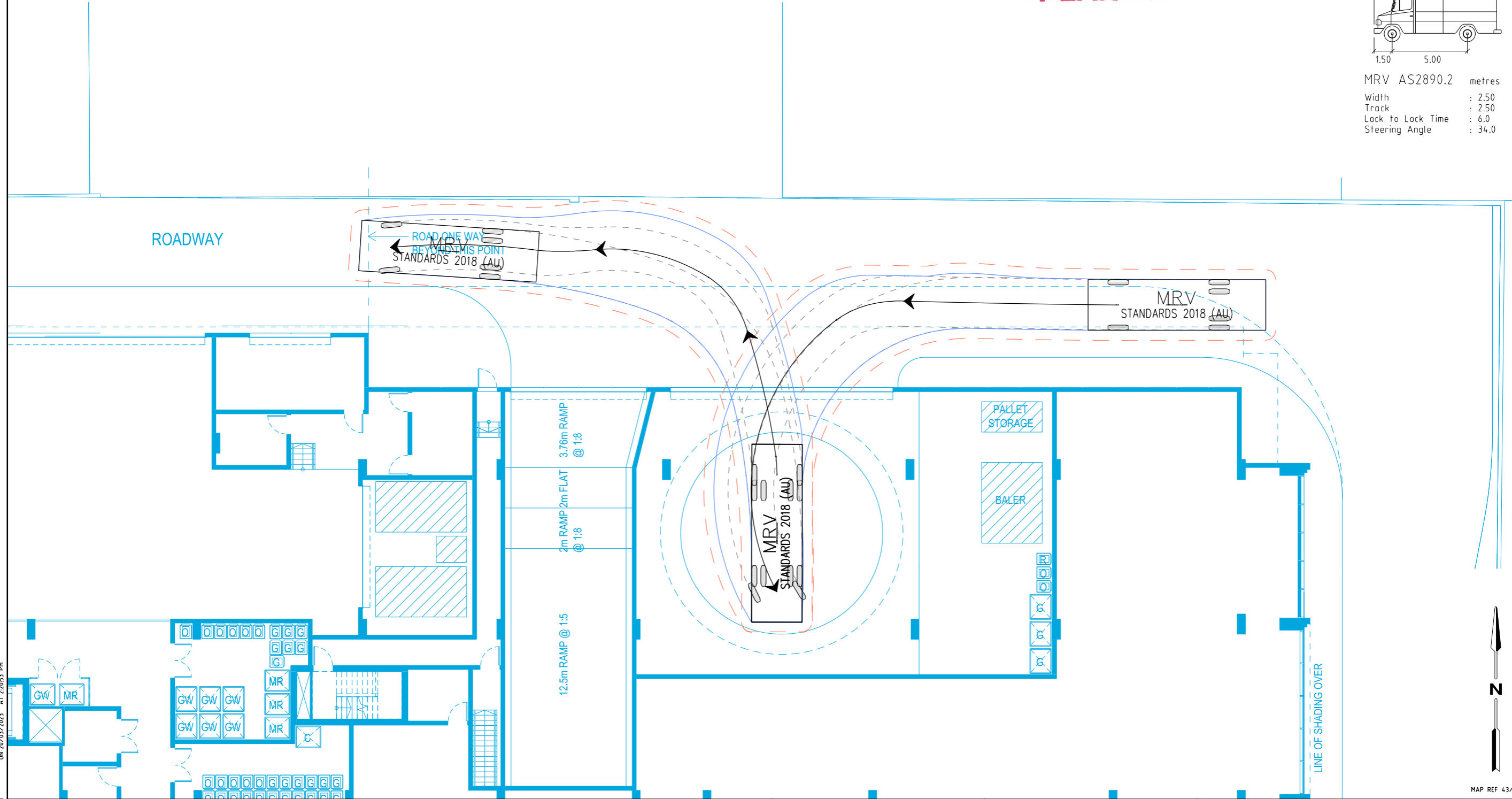
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ADVERTISED PLAN

SWEEP PATH KEY	
	VEHICLE CENTRE LINE
	VEHICLE TYRE PATH
	VEHICLE BODY PATH
	500mm CLEARANCE FROM VEHICLE BODY
ASSUMED SPEED 5km/h	



MRV AS2890.2	metres
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0



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PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY SUBJECT TO CHANGE WITHOUT NOTIFICATION

WARNING
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DESIGNED P. NGUYEN
APPROVED BY J. SELLARS

DESIGN CHECK J. SELLARS
DATE ISSUED 20 MARCH 2023

SCALE A3 0 2 4 1:200
CAD FILE NO. 300304476-AT01-P4.dgn

218-246 MACAULAY ROAD
NORTH MELBOURNE
SWEEP PATH ASSESSMENT
DRAWING NO. 300304476-AT01-04