Archer Consultants Pty Ltd

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324 Hume Highway, Bankstown NSW 2200

OPERATIONAL WASTE MANAGEMENT PLAN

Proposed Commercial Development

Business Office Premises

Client - Omar Rahman

Revision - 1A

Prepared for - City of Canterbury Bankstown - December 2022

CONTENTS

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INTRODUCTION

Archer Consultants Pty Ltd was engaged by Omar Rahman to prepare a Waste Management Plan (WMP) for approval of a proposed commercial development at 324 Hume Highway, Bankstown NSW.

The proposed development consists of;

DEVELOPMENT DETAILS
Ground Floor: Office Space (119.03m²), (135.99m²).
First Floor: Office Space (241.58m²), (423.92m²).
Second Floor: Office Space (498.29m²), (417.75m²).

In the course of preparing this WMP, the subject site and its environs have been inspected, plans of the development examined, and all relevant council requirements and documentation collected and analysed.

This WMP has been prepared based on the following information:

- Architectural Plans provided by FLDC Architects.
- Canterbury Bankstown Waste Management Guide for New Developments.

BACKGROUND & EXISTING CONDITIONS

The subject site is located at 324 Hume Highway, Bankstown NSW, on the north side of Hume Highway through to Davis Lane with the nearby land uses mostly commercial with residential to the south.

Figure 1 provides an overview of the area and its surrounding land uses whilst **Figure 2** provides an aerial view of the immediate area surround the subject site.

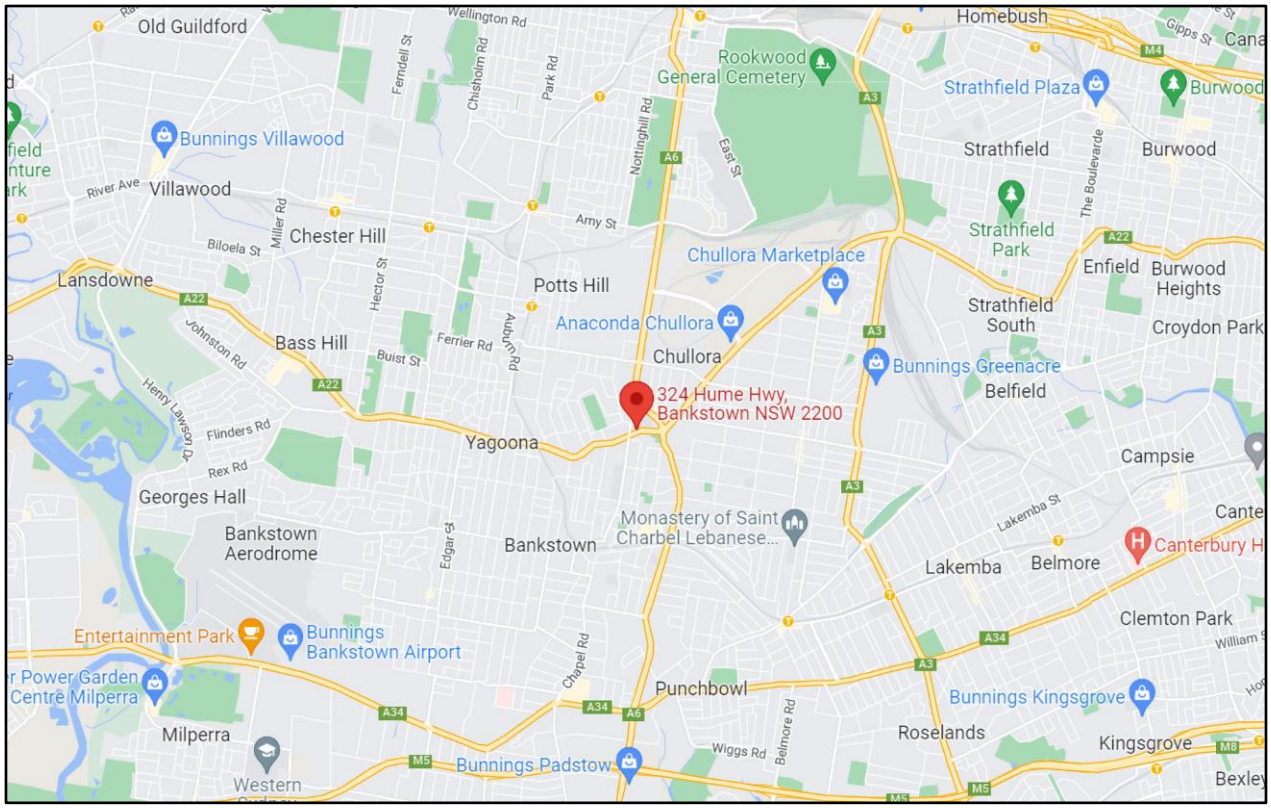


Figure 1: Location of the Subject Site

Figure 2: Aerial View of the Subject Site

PROPOSED DEVELOPMENT

The proposed development consists of a commercial development. Access to the proposed front entrance of the building will be provided via a paved walkway off Hume Highway and walkway and driveway via Davis Lane. The Mobile Garbage bins (MGB's) will be stored on basement level 1. **(Refer Appendix A).**

ANTICIPATED WASTE GENERATION, STORAGE & COLLECTION

Waste collection should be provided by private waste contracted services.

Waste Generation

As per the Canterbury Bankstown Waste Management Guide for New Developments,

The waste entitlement for the development consists of: Offices is 16L/100m^2 of floor area per day general waste and, 12L/100m^2 of floor area per day recycling waste (Inclusive of paper & cardboard waste).

The following table illustrates the typical garbage and recycling generation rates.

Table 1: Typical General and Recycling Waste Generation Rates for Commercial.

Type of Premises	General Land Waste	Commingled Recycling Waste
Offices	16L/100m^2 floor area/day	12L/100m^2 floor area/day

NOTE: Generation rates based on weekly rates within the Canterbury Bankstown Waste Management Guide for New Developments. Actual usage can vary and may be generated at a reduced rate. Management will monitor all waste requirements and handling. Accessing any needs for waste management plan revisions.

Waste within Overall Development

Using the garbage and recycling generation rates above, the following can be calculated;

Office Space: (1,836.56m^2) (7 Day Week)

- 16L/100m^2 of floor area per day general waste = 2,056.94L per week (uncompacted)
- 12L/100m^2 of floor area per day recycling waste = 1,542.71L per week (uncompacted)

Waste Storage and Handling of Waste Streams

Based on the total waste generated by the development, the following Mobile Garbage Bins (MGBs) should be provided:

- 2 x 1100L General Waste MGB's – collected and emptied once a week.
- 2 x 1100L Recycling Waste MGB's – collected and emptied once a week.

NOTE: The building manager will collect the waste bins from within the commercial offices and ferry the bins to the basement where the building manager will use the 60L–240L Bin Lift to empty the bins into the 1100L MGB's

The following table illustrates the typical dimensions of the MGB's mentioned above.

Table 2: Typical Measurements for Canterbury Bankstown (Mobile Garbage Bins) MGB's.

Size (L)	Height (mm)	Width (mm)	Depth (mm)
240L	1,100	580	735
660L	1,250	1,370	850
1,100L	1,470	1,370	1,245

Recycling

- ✓ All recycling.
- ✓ Steel, tin, aluminium cans, empty aerosols.
- ✓ Clear, brown, green glass bottles / jars (rinsed, no lids).
- ✓ Plastic bottles, soft drink bottles, containers (rinsed, no lids).
- ✓ Carboard boxes, milk, juice cartons.
- ✓ Newspapers, magazines, office paper, junk mail, window envelopes.
- ✓ Council provided compostable caddy liner.

- ✘ Plastic bags, light bulbs, mirrors, drinking glasses, general and food, waste, ceramics, crockery, foam, ovenware, polystyrene, waxed cardboard boxes.

Garbage

- ✓ General waste.
- ✓ Plastic bags.
- ✓ Packets, wrappers, cling wrap, bubble wrap.
- ✓ Nappies, sanitary waste, (wrapped tightly and stored in a well-sealed bag).
- ✓ Animal faeces, bedding, and kitty litter.
- ✓ Foam, polystyrene, and polystyrene.
- ✓ Light bulbs, mirrors, ceramics, cookware, and drinking glasses.
- ✓ Contents of your vacuum cleaner, cotton wool, buds and cigarette ends.

- ✘ Building materials, syringes, oil or paint, gas bottles, hazardous or chemical waste.
- ✘ Medical waste: (speak to your doctor / pharmacy).

Figure 3: Guidelines for Waste Placement within the MGB's

The following figure illustrates the scaled diagram of the MGB's within the basement level waste storage room and placement on the ground level for collection.

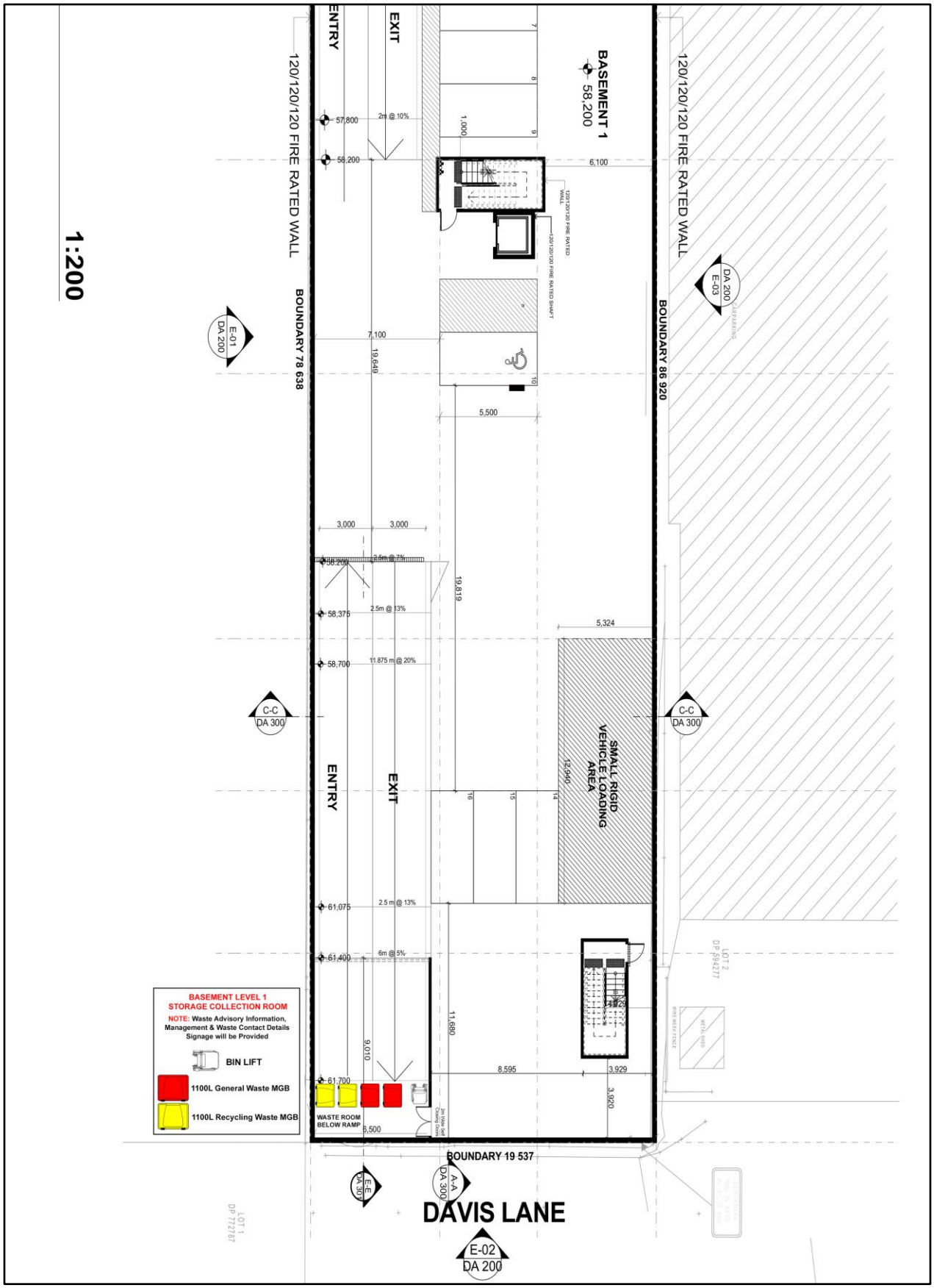


Figure 4: Scaled Diagram of the Basement Waste Storage Room

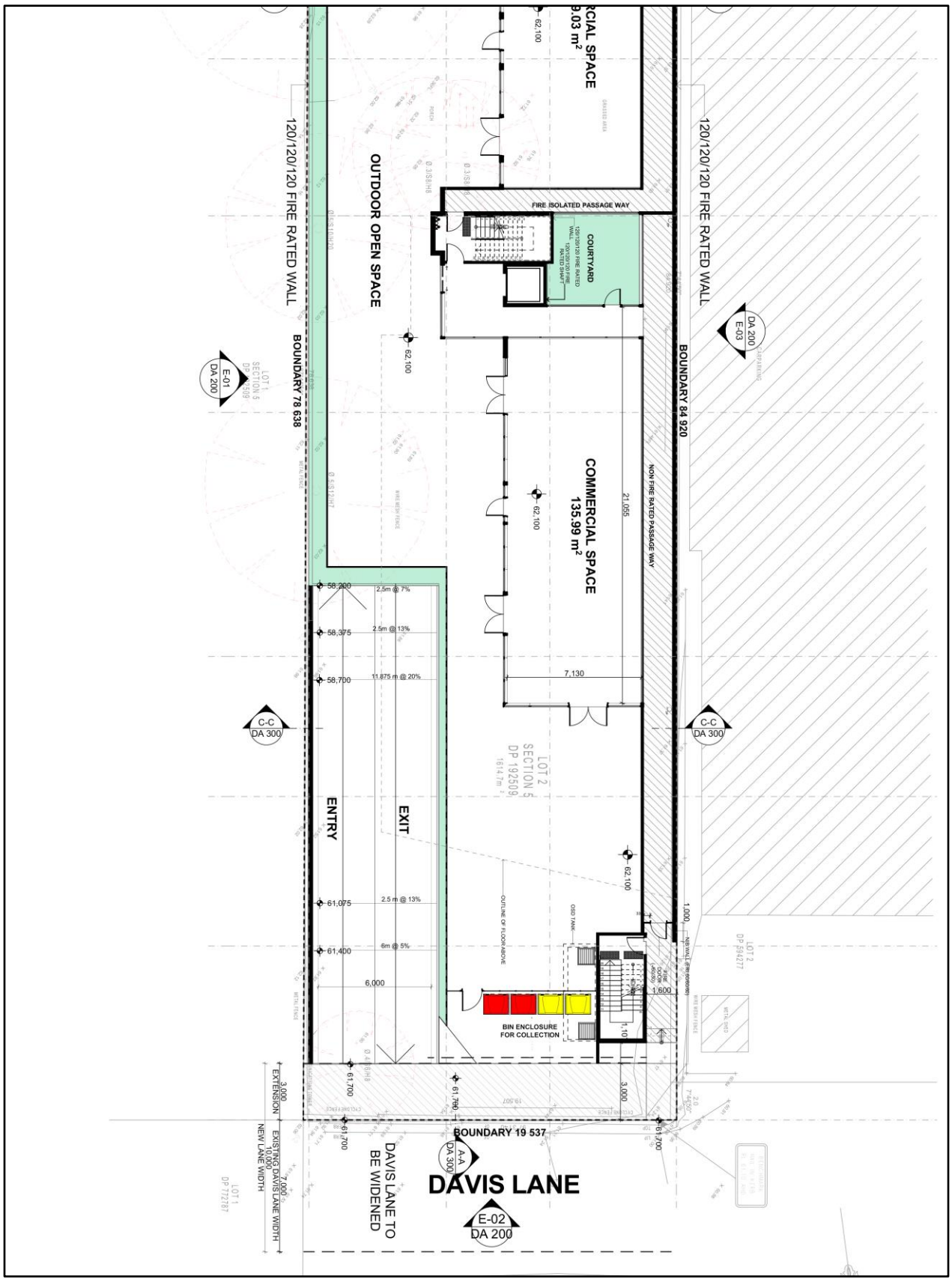


Figure 5: Scaled Diagram of the Ground Level Waste Collection Point

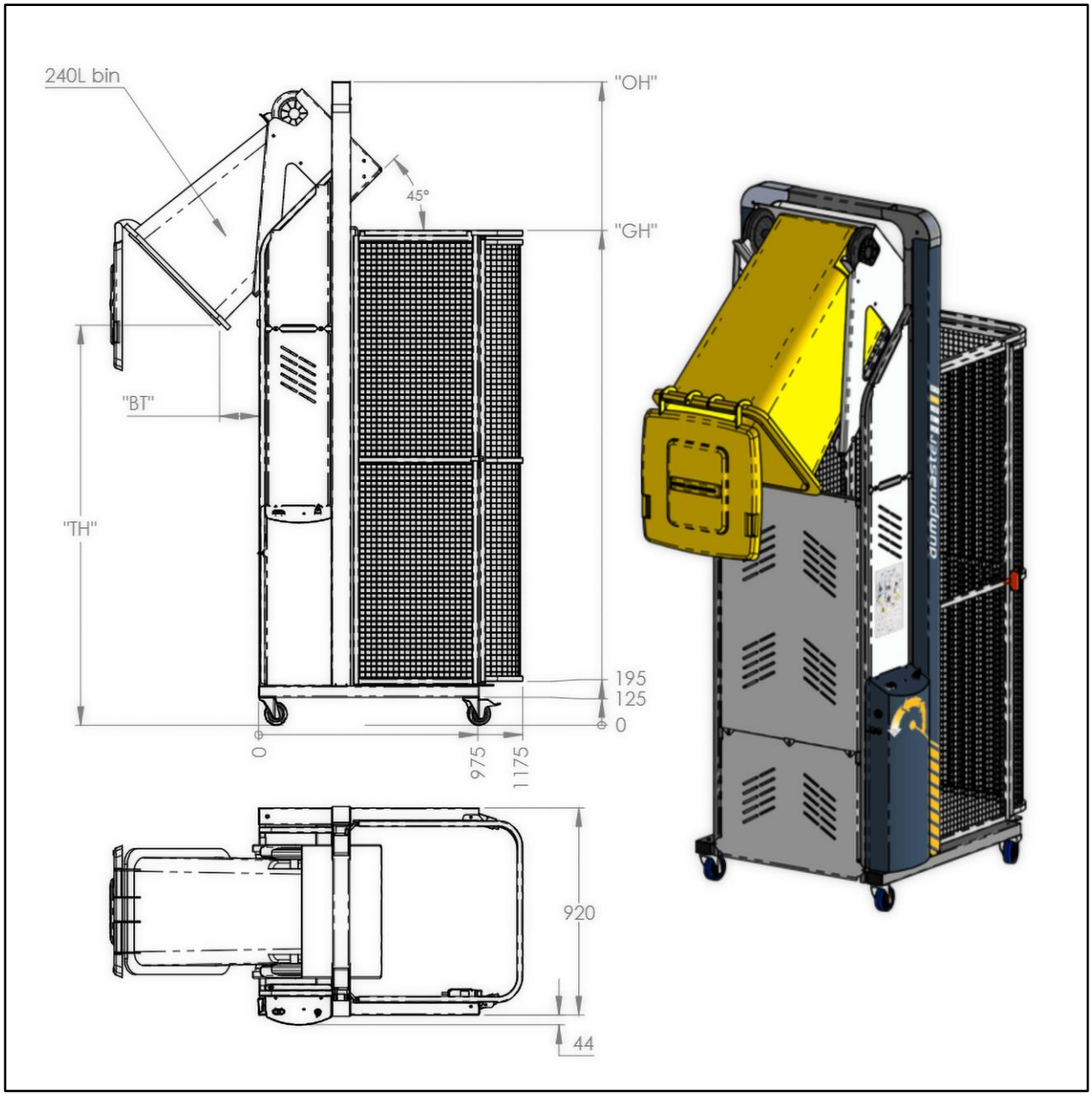
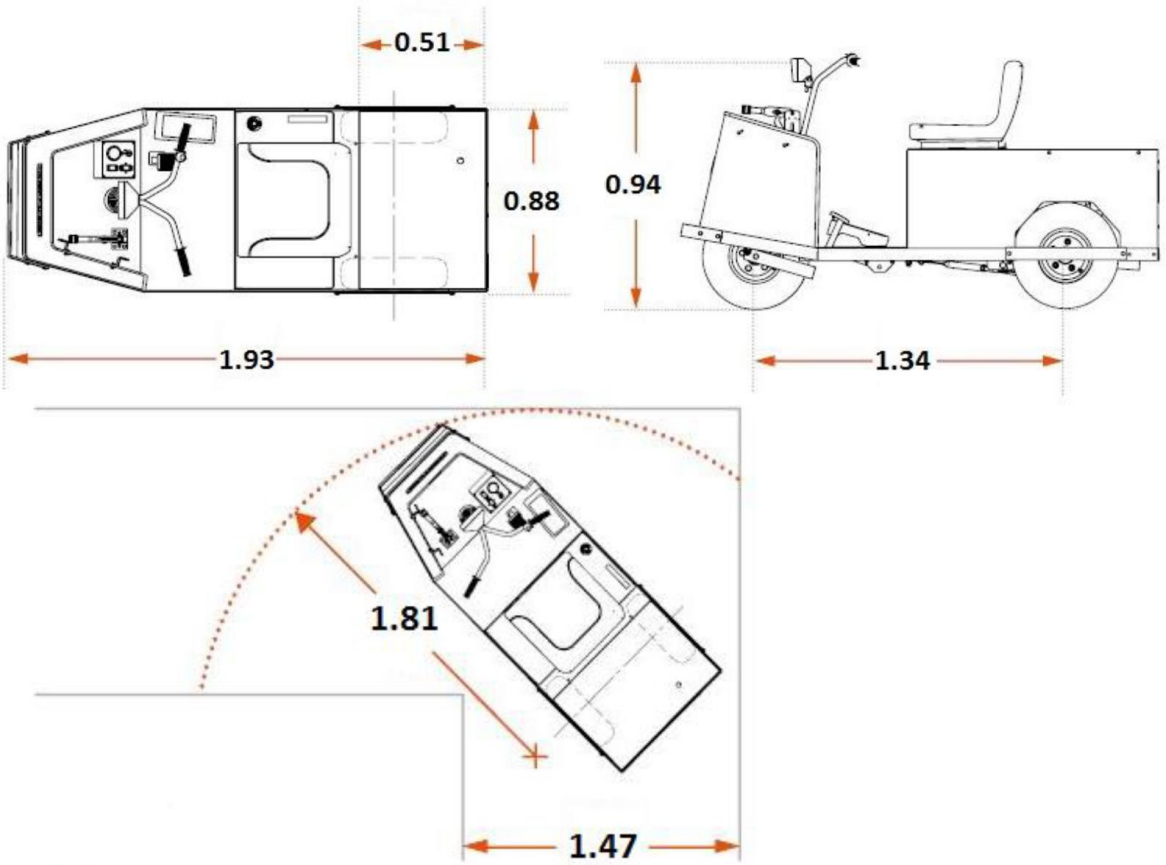


Figure 6: Typical 60L - 240L Bin Lift



NOTE: All Electric Portable Bin Tug Devices must utilise a Gel Battery operating system. Council's do not support the use of Lead Acid Batterys due fire and maintenance hazards.

Vehicle Classification	Specifications
Length (m)	1.93
Width (m)	0.88
Height (m)	0.94
Wheelbase (m)	1.34
Powertrain	36-Volt
Seating Capacity (kg)	1 Person
Unit Weight (kg)	426
Aisle Clearance (m)	1.80
Towing Capacity (kg)	3,629
Speed (km/h)	9.6

Figure 7: Typical Large Bin Tug

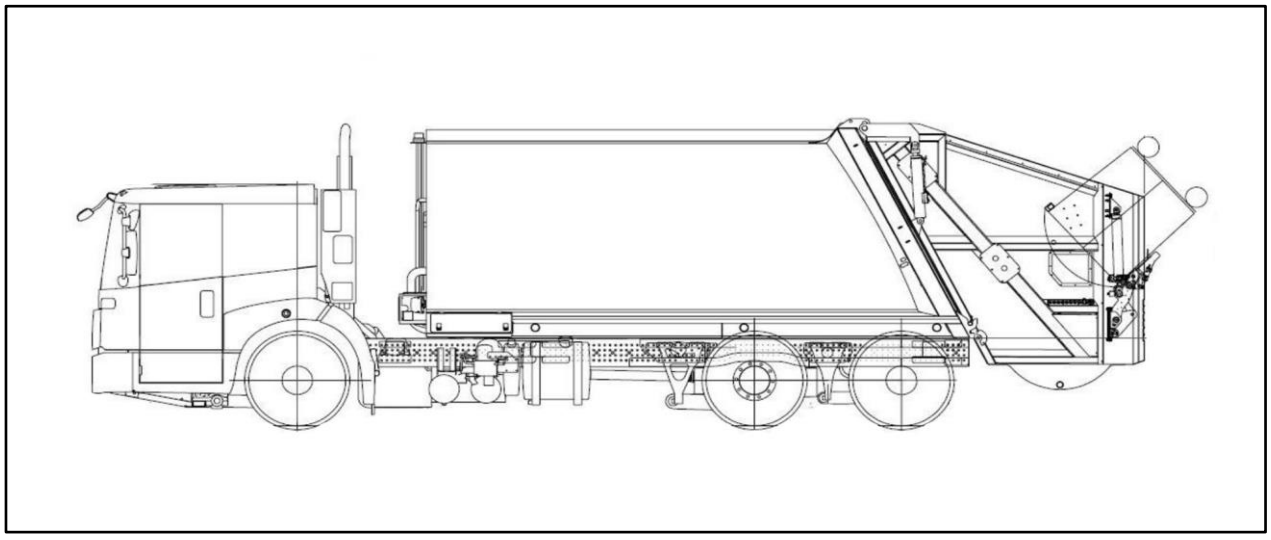
WASTE COLLECTION

Waste collection should be provided by private waste contracted services.

To help ensure bin collection runs smoothly and enables drivers to pick up, empty and replace the bins safely, it's important to:

- Ensure the MGB's are not overfilled with the lids are shut to avoid spills and to protect it from bugs and animals.
- The building manager will use the bin tug to ferry the MGB's to the ground level collection point for collection on the day of collection.
- Once all the MGB's have been emptied the building manager will immediately return the MGB's to the basement waste room.

The waste collection vehicle will pull up within the ground level on-site waste collection area off Davis Lane and ferry the waste bins to/from the waste collection area and waste vehicle emptying the MGB's. Once all the MGB's have been emptied and returned to the waste collection area, the vehicle will leave in a forward motion.



Vehicle Type	Length	Design Width	Design Turning Radius	Clearance Travel Height	Swept Turning Circle
HRV (Rear Lift)	12.5m	2.5m	3.6m	4.5m	27.8m

Figure 8: Diagram of a Typical HRV Waste Collection Vehicle (Required by Council)

AMENITY

Noise

The only noise generated from the waste management at the property will be that of the MGB's being wheeled to / from the waste vehicle emptying the MGB's. Any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste bin area will need ventilation.

Security & Communication Strategy

All MGB's will be secured within the waste storage area.

Management and Staff will receive detailed documentation detailing all necessary requirements for safe waste management and handling including all relevant contact information.

The building manager will collect the waste bins from within the commercial offices and ferry the bins to the basement where the building manager will use the 60L – 240L Bin Lift to empty the bins into the 1100L MGB's

Waste Storage Enclosures & Cleaning Facilities

Building management will be responsible for keeping the MGB's clean.

NOTE: The waste area should be enclosed and consist of; **(1)** Impervious solid impervious material walls and 75mm thick smooth even ground surface, ensuring the ground is graded to a Sydney approved drainage fitting. **(2)** Ceilings must be finished with a smooth faced, non-absorbent material capable of being cleaned. **(3)** Walls, ceilings and floors must be finished in a light colour. **(4)** Hot and cold water tap mixed through a centralised mixing valve with hose cock for use of cleaning the MGB's and waste area. **(5)** Doors must be at least 2m wide and be close fitting and self-closing and able to be opened from within the room. **(6)** Constructed to prevent the entry of vermin and birds with adequate light and ventilation. **(7)** Lighting must be controlled using switches located both inside and outside the room **(8)** Waste educational signage with building management contact details.

Prevention of Vermin

The occupants will be advised to not overfill the bins so that the lids are closed at all times. It is suggested to place rat traps in the corners of the waste storage areas.

MISCELLANEOUS

Communal Composting Facility

Organic waste is a problem in landfill as it produces methane, a harmful greenhouse gas that is 25 times more potent than carbon dioxide. Turning it into compost reduces the impact on the environment and allows waste to become a usable product. Existing landfill sites are also nearing capacity and the creation of new sites can cause significant detrimental effects through land clearing, loss of habitat for local wildlife, and potential groundwater and soil contamination from the leaching of heavy metals and chemicals.

Management can decide to commit to improving waste management methods by choosing to add 2 x 240L Organic Waste bins collected at least once a week by a private organic waste contractor.

Internal Waste Storage

It is suggested that sufficient space, should be provided for interim storage of smaller bins in strategic areas for garbage and recyclables. Space should allow for separate storage of recyclables from the garbage streams. Ideally segregation of organics waste placed in a kitchen caddy for placement within the organic waste bin.

Organic (Food/Green) Waste

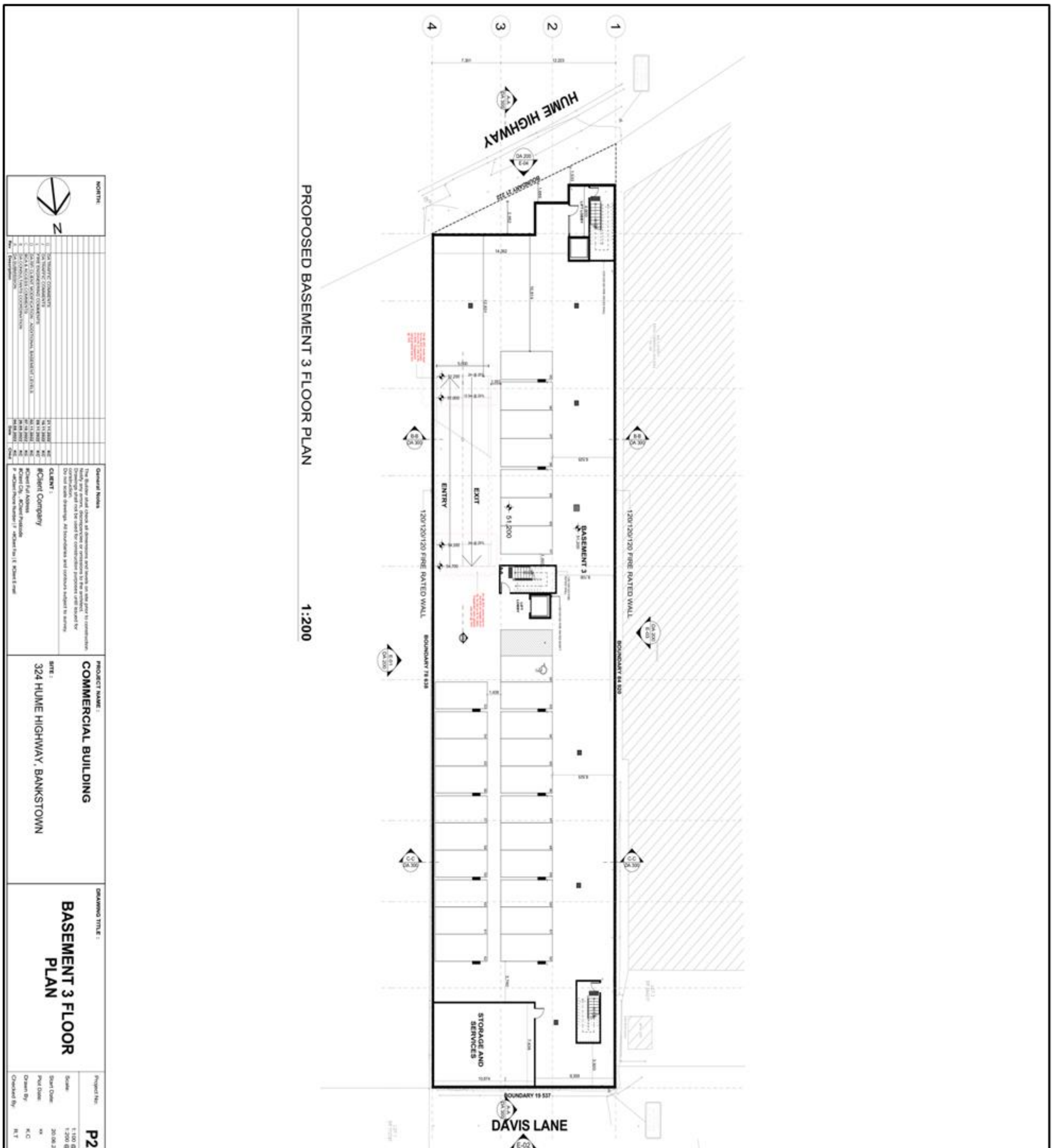
Food waste can be placed in the general waste bins. ***Please refer to Communal Composting Facility above*.** Green waste won't be required.

Bulky Waste

If bulky hard waste collection is required management, should contact a private waste contracted service to organise collection.

E-Waste

Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors. E-Waste is expected to be minimal therefore, all waste will be placed in a small impermeable surface container and management will organise for the E-Waste to be taken to a registered E-Waste Re-Processor as required.


PROPOSED BASEMENT 3 FLOOR PLAN
1:200
HUME HIGHWAY
DAVIS LANE
ENTRY
EXIT
120/120/120 FIRE RATED WALL
STORAGE AND SERVICES
COMMERCIAL BUILDING
324 HUME HIGHWAY, BANKSTOWN
BASEMENT 3 FLOOR PLAN
P2203BAN
DA 101
Area Analysis:

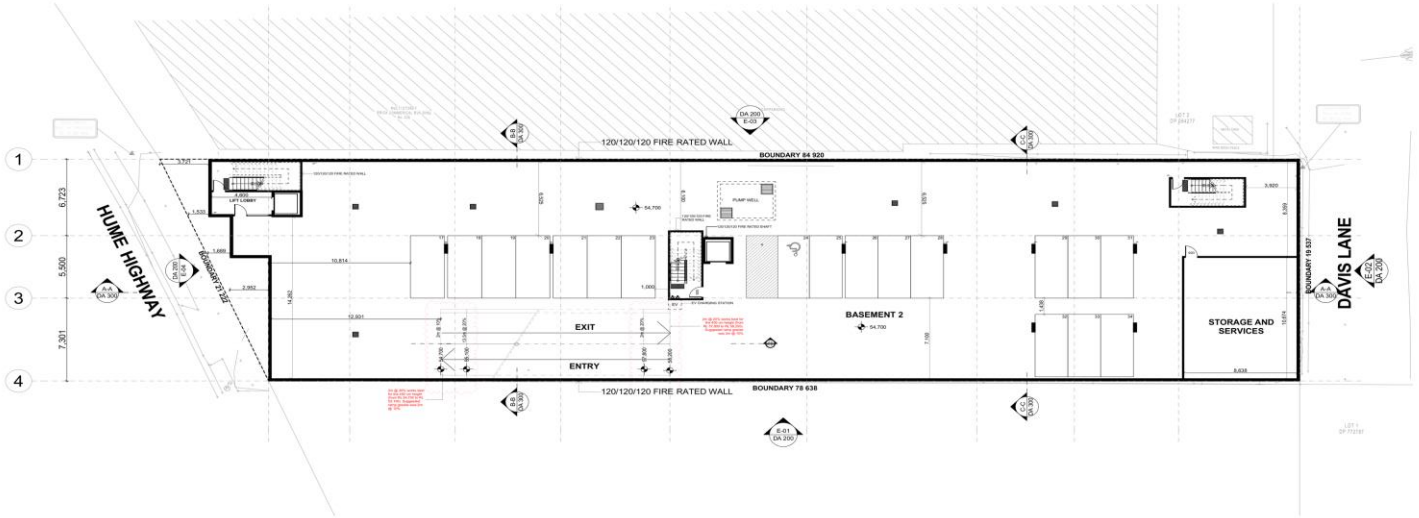
Area Analysis:

Proposed New Childcare
324 HUME HIGHWAY, BANKSTOWN
Site Area = 1614.7 m²
Lot 2 in D.P. 192505
Calculations - External Walls excluded in calc.

PROPOSED CALCULATIONS

GROUND FLOOR AREA =	615.51 m²
LEVEL 1 FLOOR AREA =	887.90 m²
LEVEL 2 FLOOR AREA =	1,125.89 m²
TOTAL AREA =	2629.3 m²
PROPOSED FSR =	1.6:1
ALLOWABLE FSR =	2:1

PROPOSED DEEP SOIL = 171.86 m² - 10%



PROPOSED BASEMENT 2 FLOOR PLAN **1:200**

NORTH:

Rev	Description	Date	Chkd
C	DA TRAFFIC COMMENTS	21.11.2022	KC
B	DA TRAFFIC COMMENTS	16.11.2022	KC
A	FIRE ENGINEERING COMMENTS	09.11.2022	KC
-	DA RFI / CLIENT MODIFICATION - ADDITIONAL BASEMENT LEVELS	03.11.2022	KC
-	BCA & ACCESS COMMENTS	07.10.2022	KC
3	DA CONSULTANTS COORDINATION	26.09.2022	KC
2	DA SUBMISSION	06.09.2022	KC

General Notes

The Builder shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the architect. Drawings shall not be used for construction purposes until issued for construction. Do not scale drawings. All boundaries and contours subject to survey.

CLIENT :
#Client Company
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P: +#Client Phone Number | F: +#Client Fax | E: #Client E-mail

PROJECT NAME :
COMMERCIAL BUILDING

SITE :
324 HUME HIGHWAY, BANKSTOWN

DRAWING TITLE :
BASEMENT 2 FLOOR PLAN

Project No:	P2203BAN
Scale:	1:100 @ A1 1:200 @ A3
Start Date:	20.06.2022
Plot Date:	xx
Drawn By:	K.C
Checked By:	R.T
Status:	DA
Drawing No:	DA 102
Rev	G

REGISTRATION 8140

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Area Analysis:

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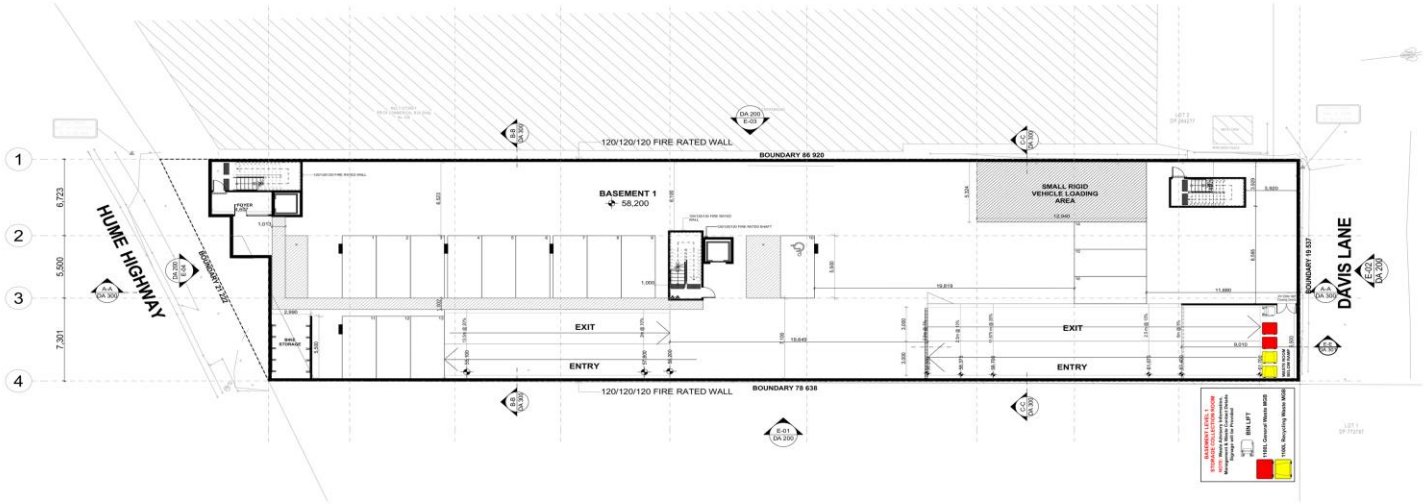

PROPOSED BASEMENT 1 FLOOR PLAN **1:200**

NORTH:

Rev	Description	Date	Chkd
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2	DA TRAFFIC COMMENTS	16.11.2022	KC
3	FIRE ENGINEERING COMMENTS	09.11.2022	KC
4	DA RFI / CLIENT MODIFICATION - ADDITIONAL BASEMENT LEVELS	03.11.2022	KC
5	BCA & ACCESS COMMENTS	07.10.2022	KC
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PROJECT NAME :
COMMERCIAL BUILDING

SITE :
324 HUME HIGHWAY, BANKSTOWN

DRAWING TITLE :
BASEMENT 1 FLOOR PLAN

Project No:	P2203BAN
Scale:	1:100 @ A1 1:200 @ A3
Start Date:	20.06.2022
Plot Date:	xx
Drawn By:	K.C
Checked By:	R.T
Status:	DA
Drawing No:	DA 103
Rev	G

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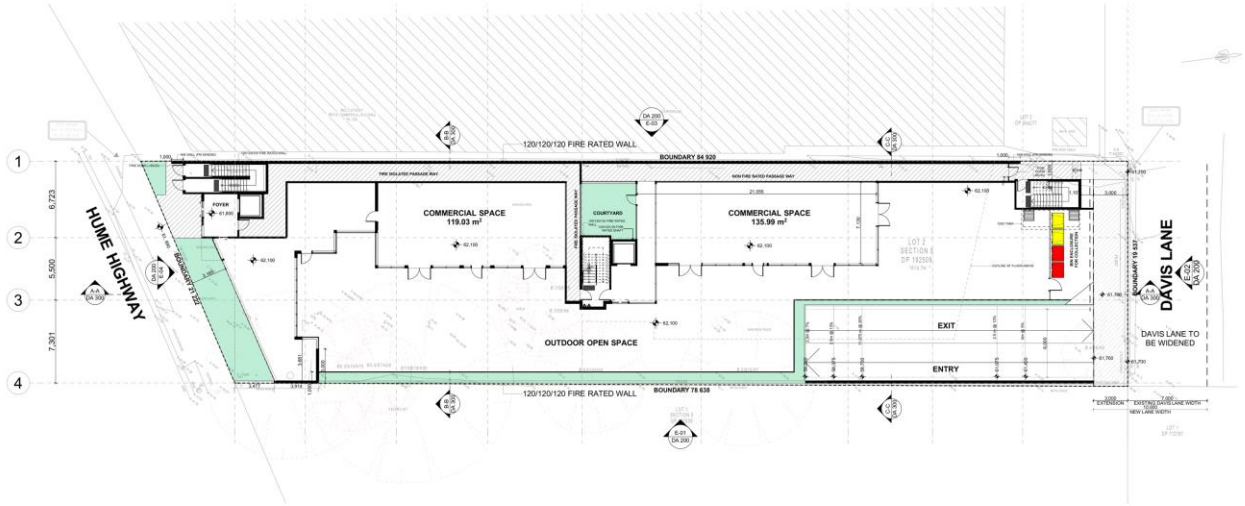
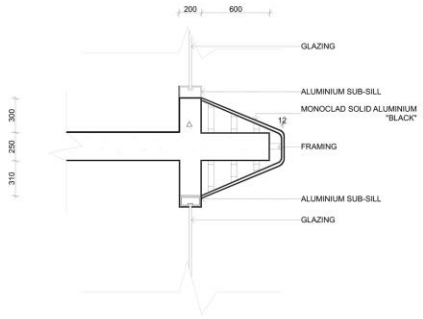
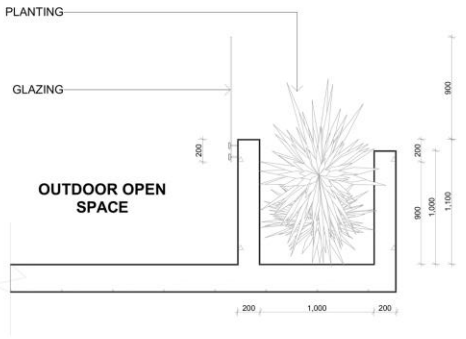


PROPOSED GROUND FLOOR PLAN 1:200



D-01 FACADE SLAB AND JUNCTION DETAIL 1:20



D-02 PLANTER BOX DETAIL 1:20

NORTH:

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A	FIRE ENGINEERING COMMENTS	09.11.2022	KC
5	DA RFI CLIENT MODIFICATION - ADDITIONAL BASEMENT LEVELS	02.11.2022	KC
4	BCA & ACCESS COMMENTS	07.10.2022	KC
3	DA CONSULTANTS COORDINATION	28.09.2022	KC
2	DA SUBMISSION	04.09.2022	KC

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P :#Client Phone Number | F :#Client Fax | E :#Client E-mail

PROJECT NAME :
COMMERCIAL BUILDING

SITE :
324 HUME HIGHWAY, BANKSTOWN

DRAWING TITLE :
GROUND FLOOR PLAN

Project No: P2203BAN
Scale: 1:100 @ A1, 1:200 @ A3
Start Date: 20.06.2022
Plot Date: xx
Drawn By: K.C
Checked By: R.T
Status: DA
Drawing No: DA 104
Rev: G

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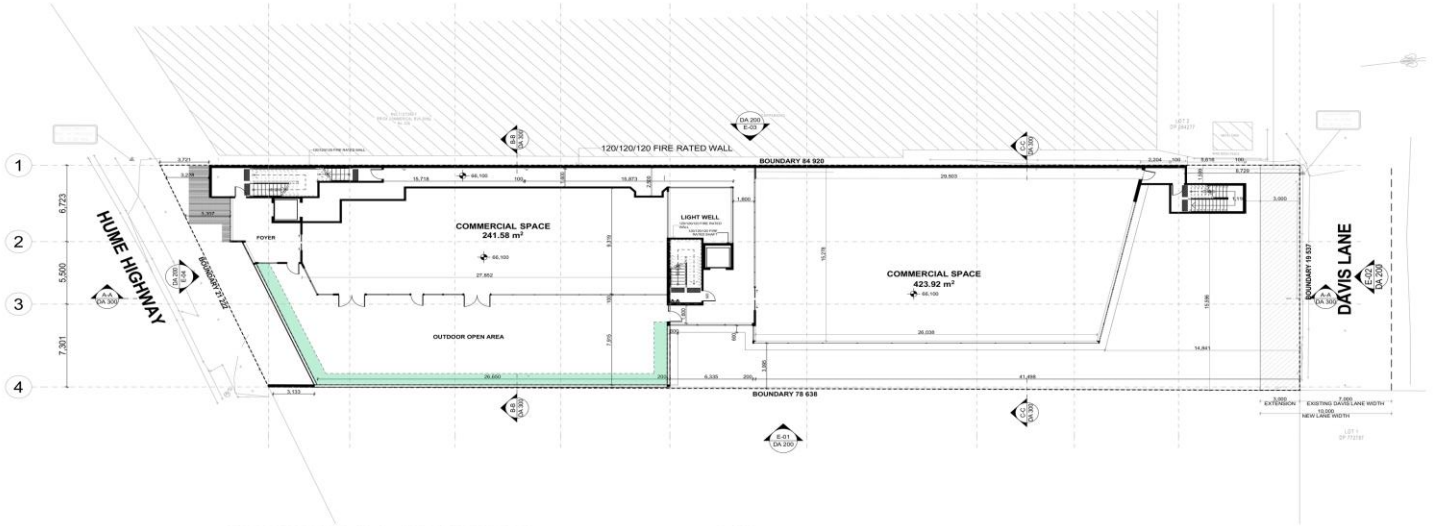

PROPOSED LEVEL 1 FLOOR PLAN **1:200**

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LEVEL 1 FLOOR PLAN

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Plot Date:	xx
Drawn By:	K.C
Checked By:	R.T
Status:	DA
Drawing No:	DA 105
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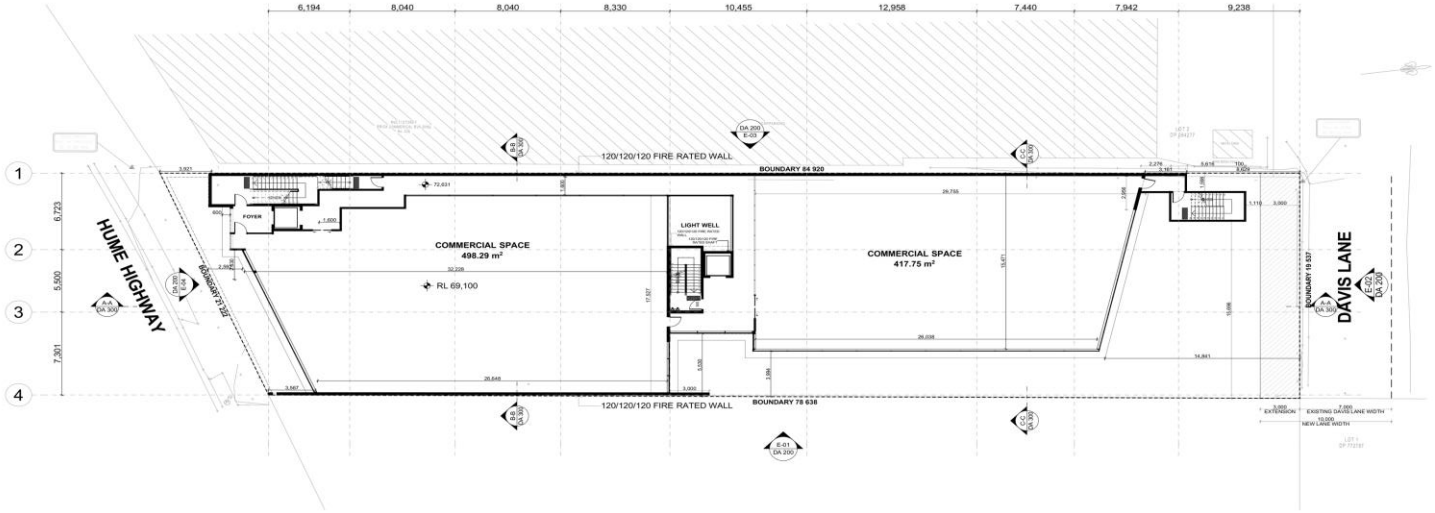

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LEVEL 2 FLOOR PLAN

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Start Date:	20.06.2022
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Drawn By:	K.C
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Status:	DA
Drawing No:	DA 106
Rev	G

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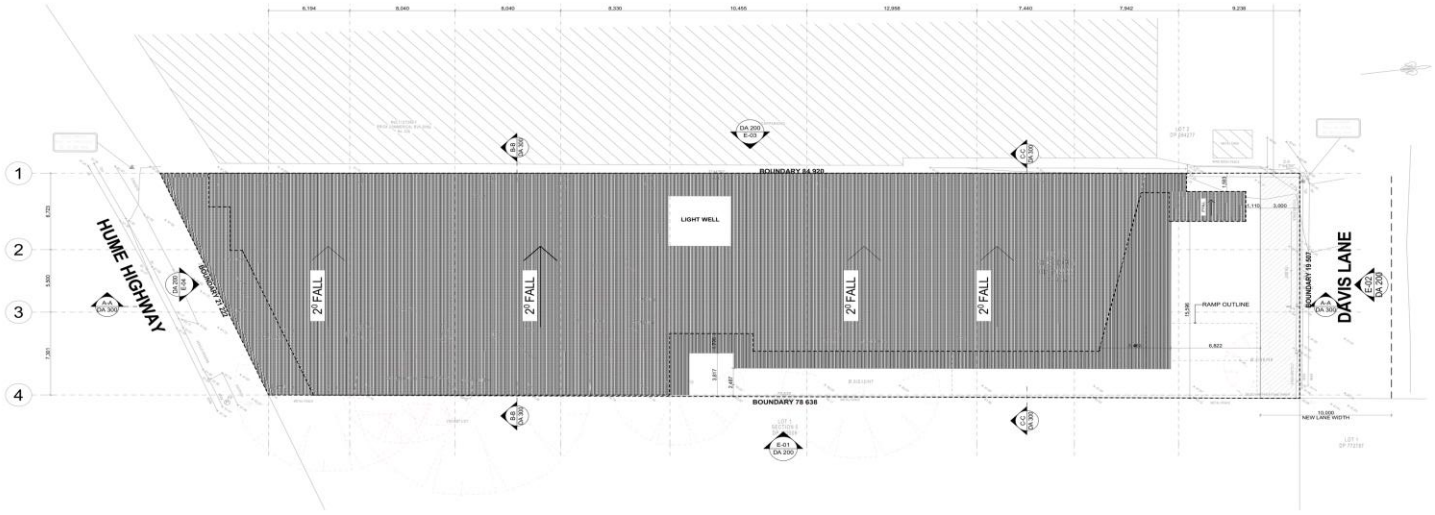
PROPOSED CALCULATIONS

GROUND FLOOR AREA =	615.51 m²
LEVEL 1 FLOOR AREA =	887.90 m²
LEVEL 2 FLOOR AREA =	1 125.89 m²
TOTAL AREA =	2629.3 m²
PROPOSED FSR =	1.6:1
ALLOWABLE FSR =	2:1

PROPOSED DEEP SOIL = 171.86 m² - 10%

LEGEND

TREES TO BE REMOVED



PROPOSED SITE/ROOF PLAN **1:200**

NORTH:

Rev	Description	Date	Chkd
C	DA TRAFFIC COMMENTS	21.11.2022	KC
B	DA TRAFFIC COMMENTS	16.11.2022	KC
A	FIRE ENGINEERING COMMENTS	09.11.2022	KC
-	DA RFI / CLIENT MODIFICATION - ADDITIONAL BASEMENT LEVELS	03.11.2022	KC
-	BCA & ACCESS COMMENTS	07.10.2022	KC
B	DA CONSULTANTS COORDINATION	26.09.2022	KC
A	DA SUBMISSION	06.09.2022	KC

General Notes

The Builder shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the architect. Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings. All boundaries and contours subject to survey.

CLIENT :
#Client Company
#Client Full Address
#Client City , #Client Postcode
P: #Client Phone Number | F: #Client Fax | E: #Client E-mail

PROJECT NAME :
COMMERCIAL BUILDING

SITE :
324 HUME HIGHWAY, BANKSTOWN

DRAWING TITLE :
SITE/ROOF PLAN

Project No:	P2203BAN
Scale:	1:100 @ A1 1:200 @ A3
Start Date:	20.06.2022
Plot Date:	xx
Drawn By:	K.C
Checked By:	R.T
Status:	DA
Drawing No:	DA 100
Rev	G

REGISTRATION 8140

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