



Meeting attachments

Ordinary Meeting of Council

Wednesday 9 April 2025 6pm

C2504-1 LOT 201 (NO. 1) GOLDSBROUGH ST & PART LOT 40 (NOS. 48-68) CANTONMENT ST, FREMANTLE (WOOL STORES) - SEVEN (7) STOREY MIXED USE DEVELOPMENT COMPRISING 39 MULTIPLE DWELLINGS, 174 CO-LIVING (RESIDENTIAL BUILDING) UNITS, OFFICE, RESTAURANT/CAFÉ, SHOP AND TAVERN.....	3
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WOOL STORES FREMANTLE

NUMBER	DRAWING NAME	REV
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DA101	BASEMENT	A
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DA201	ELEVATIONS	A
DA202	ELEVATIONS	A
DA301	SECTIONS	A
DA302	SECTIONS	A
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DA402	SUN STUDY - SUMMER	A
DA403	SUN STUDY - EQUINOX	A
DA404	SUN STUDY - WINTER	A



CITY OF FREMANTLE
These Plans Form Part of

DAP005/24

3 January 2025

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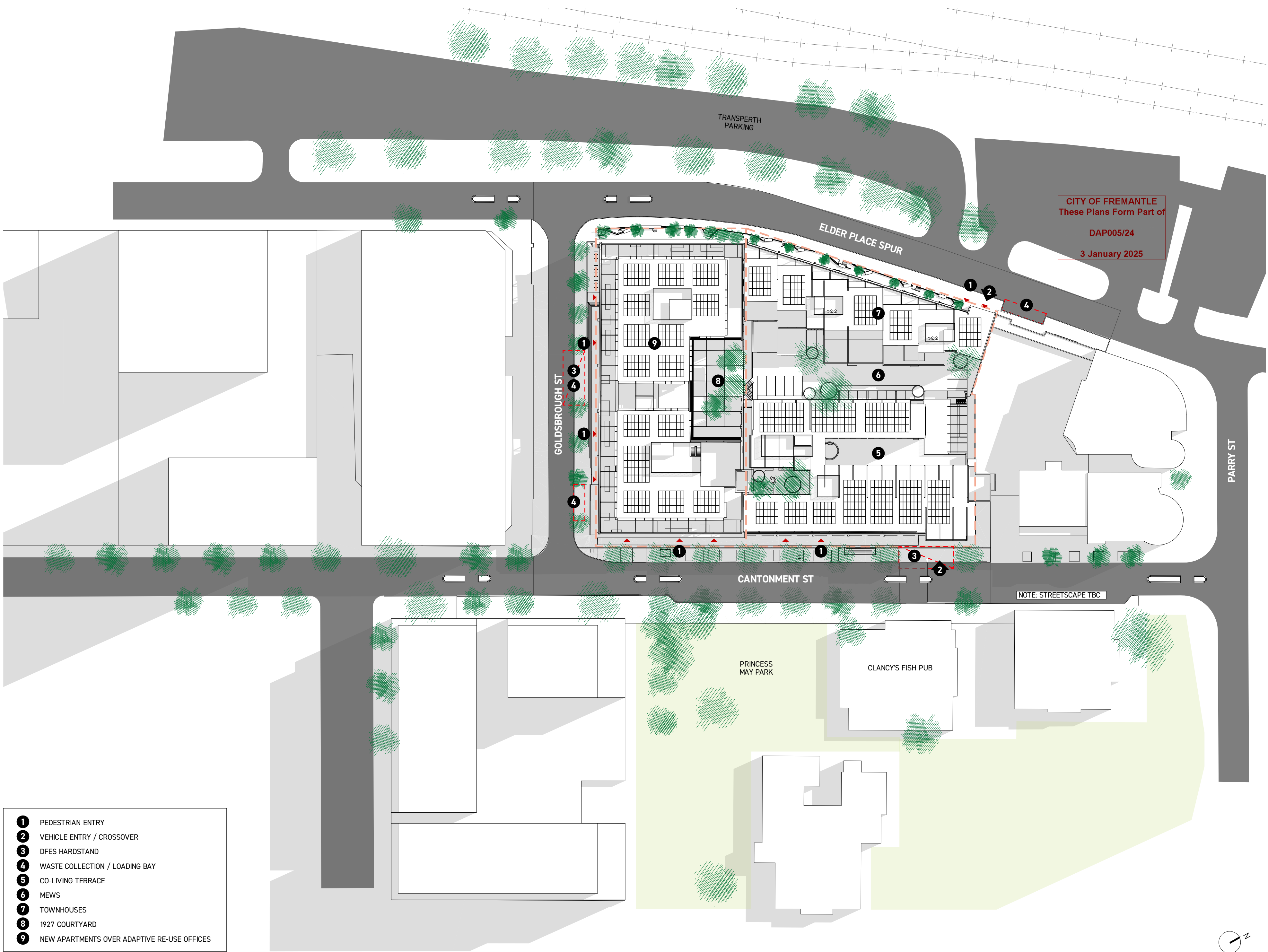
PROJECT
WOOL STORES
48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
COVER

PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE
@A1

PROJECT NO.	DRAWING NO.	REVISION
2204	DA001	B



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PROJECT
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48 - 68 CANTONMENT STREET FREMANTLE

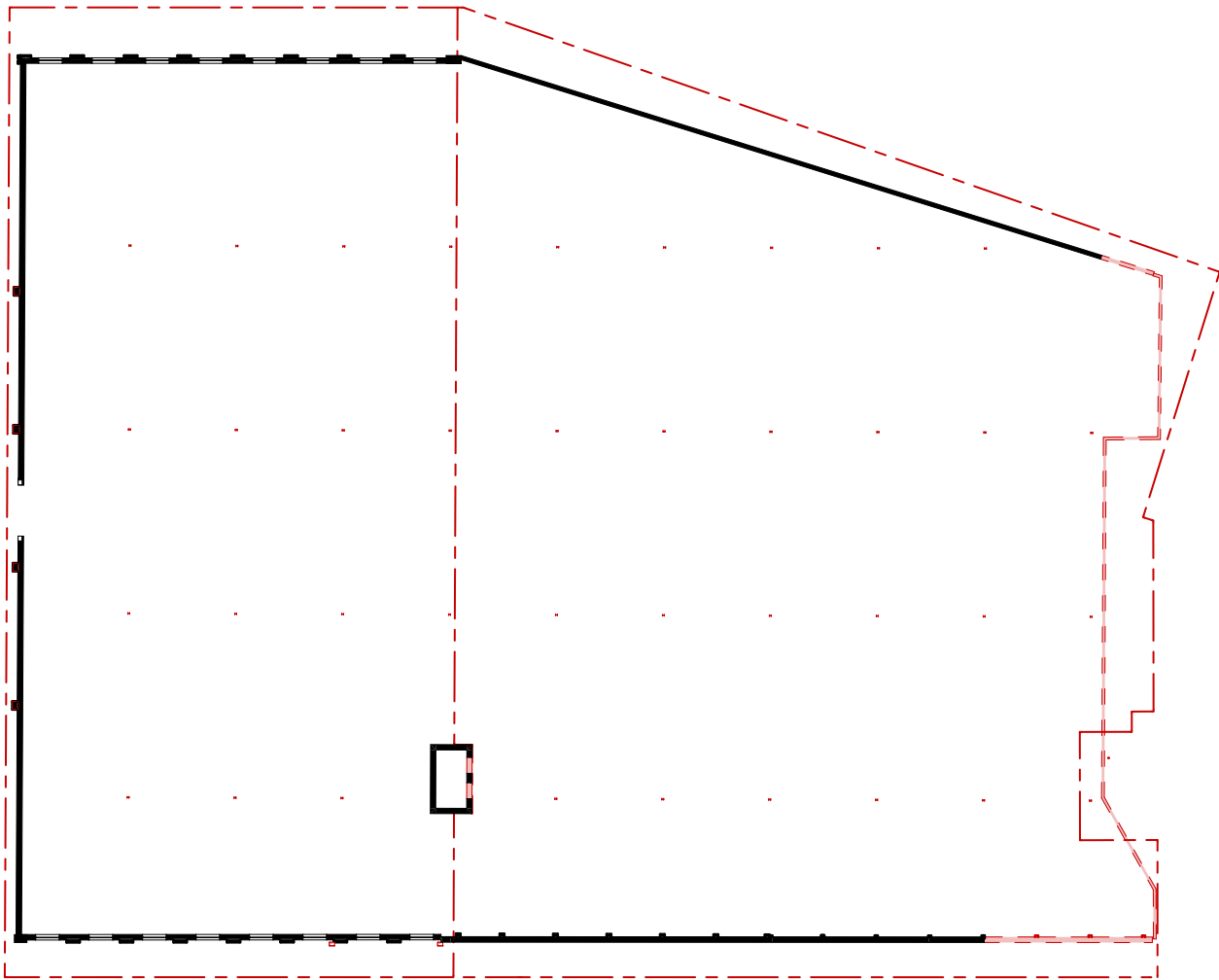
DRAWING
SITE PLAN

PROJECT STATUS
DEVELOPMENT APPROVAL

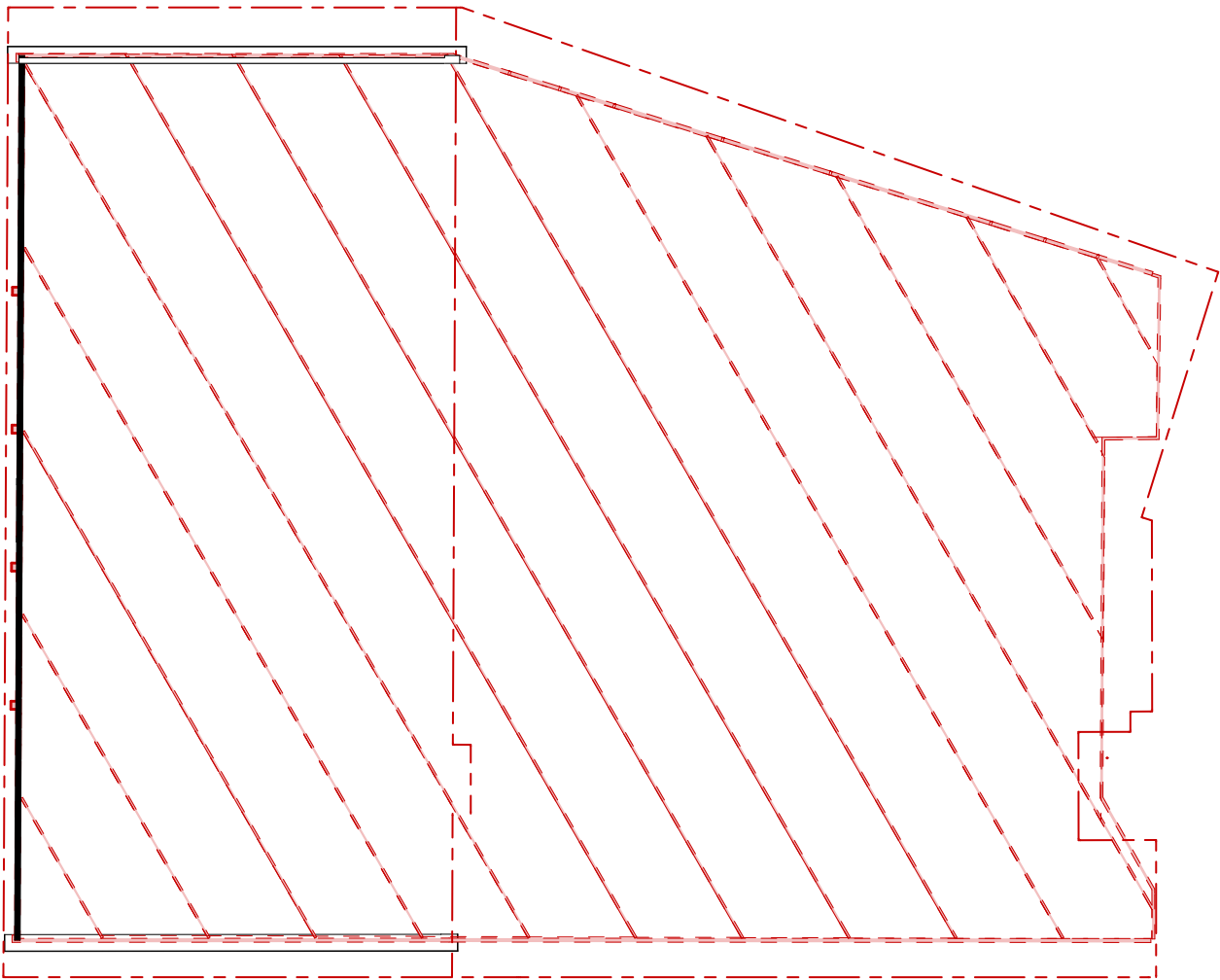
SCALE 1:500 @A1

0 5 10 20m

PROJECT NO. 2204
DRAWING NO. DA002
REVISION A



THIRD FLOOR



ROOF

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DAP005/24

3 January 2025

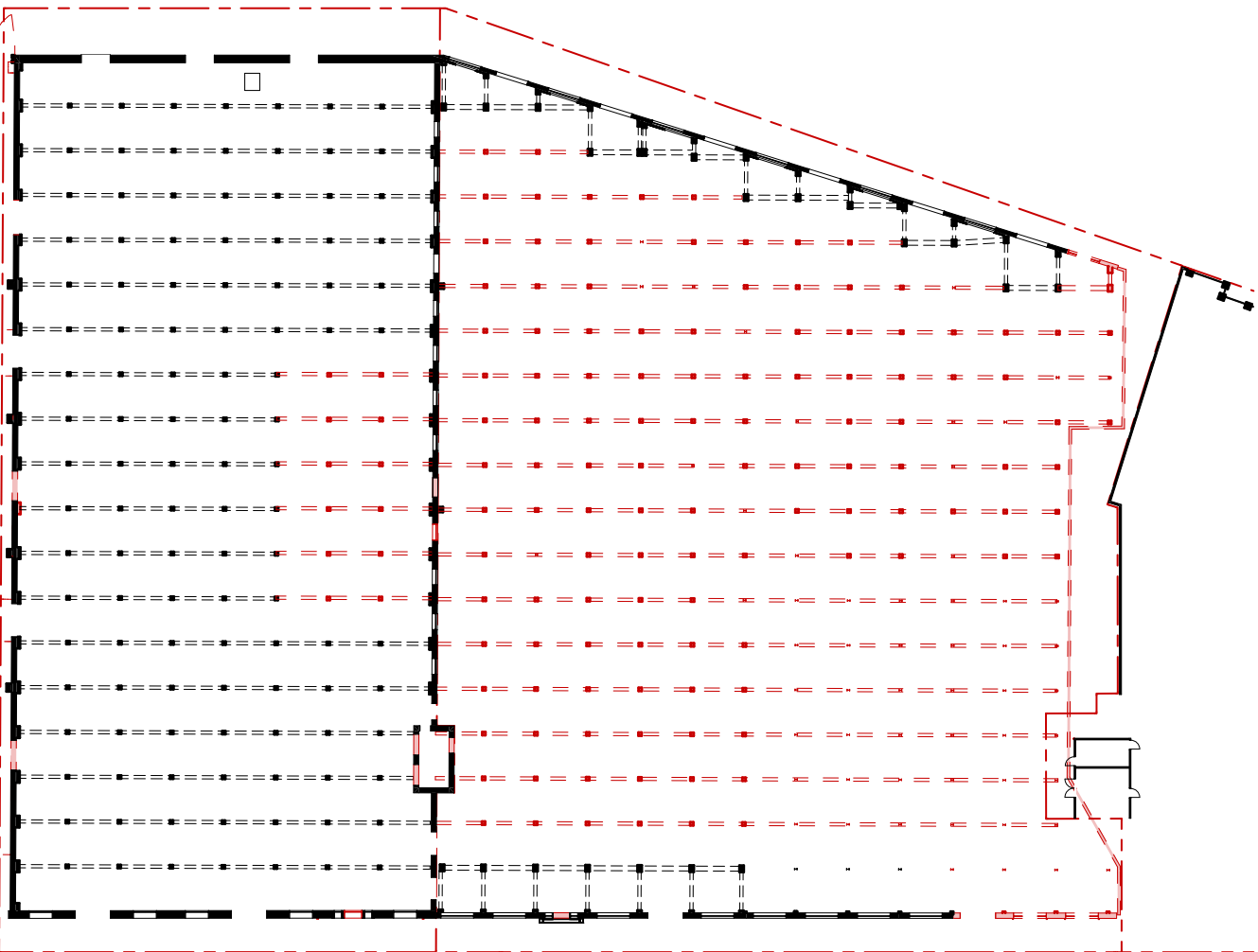
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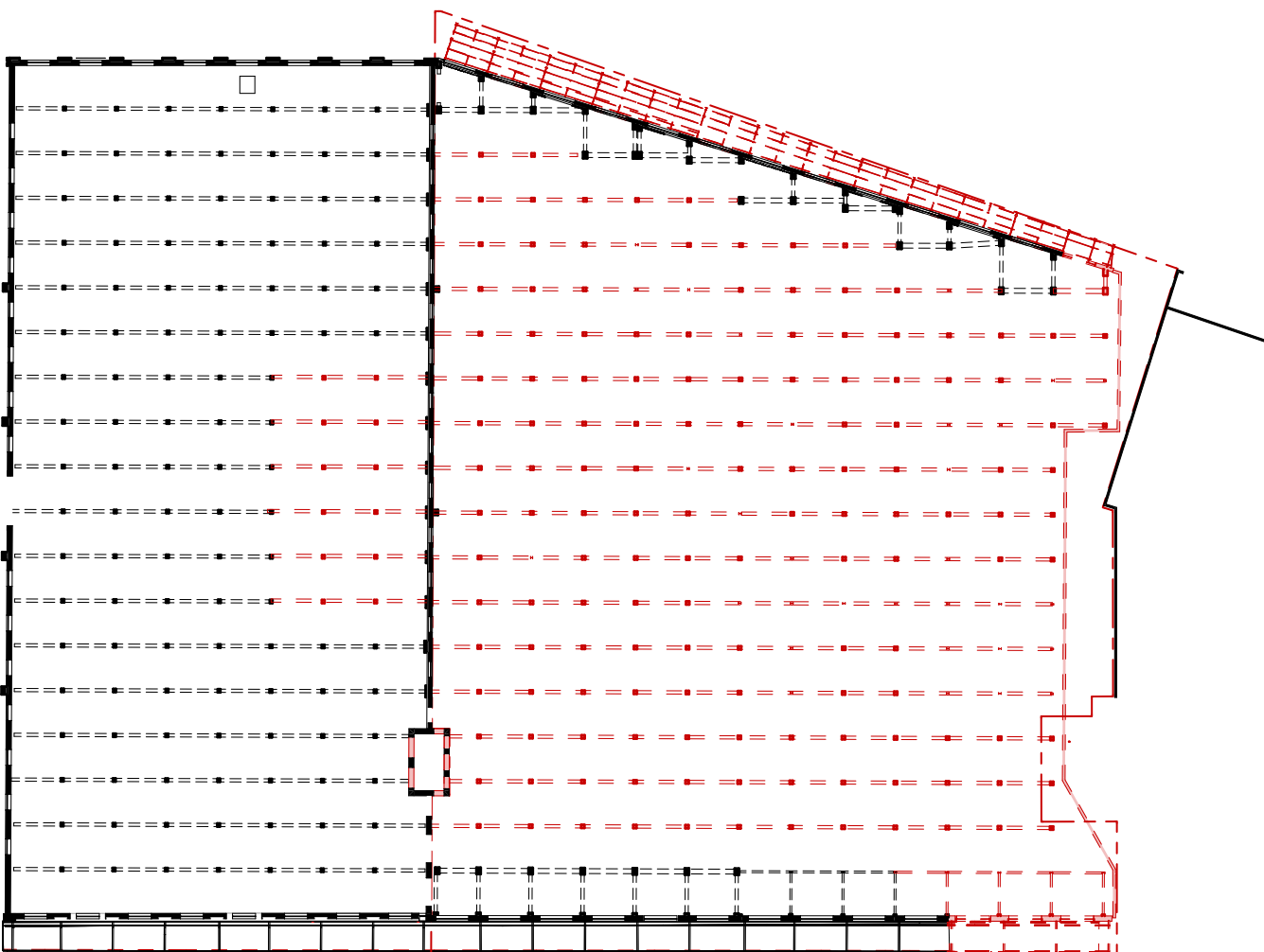
RESOURCE & HERITAGE MANAGEMENT
NOTES

1920s BUILDING
- Asbestos roof and steel trusses to be removed.
- Existing brick wall above ornamental frieze to be removed on east, west and south elevations. Remaining brick facade to be retained and restored.
- Existing timber floor to be removed and set aside for reuse subject to condition.
- Existing timber joists, beams and columns in proposed courtyard area to be removed and set aside for reuse. Columns, joists and beams to be removed as required to facilitate the insertion of 2 new service and lift/stair cores as shown on proposed plans.

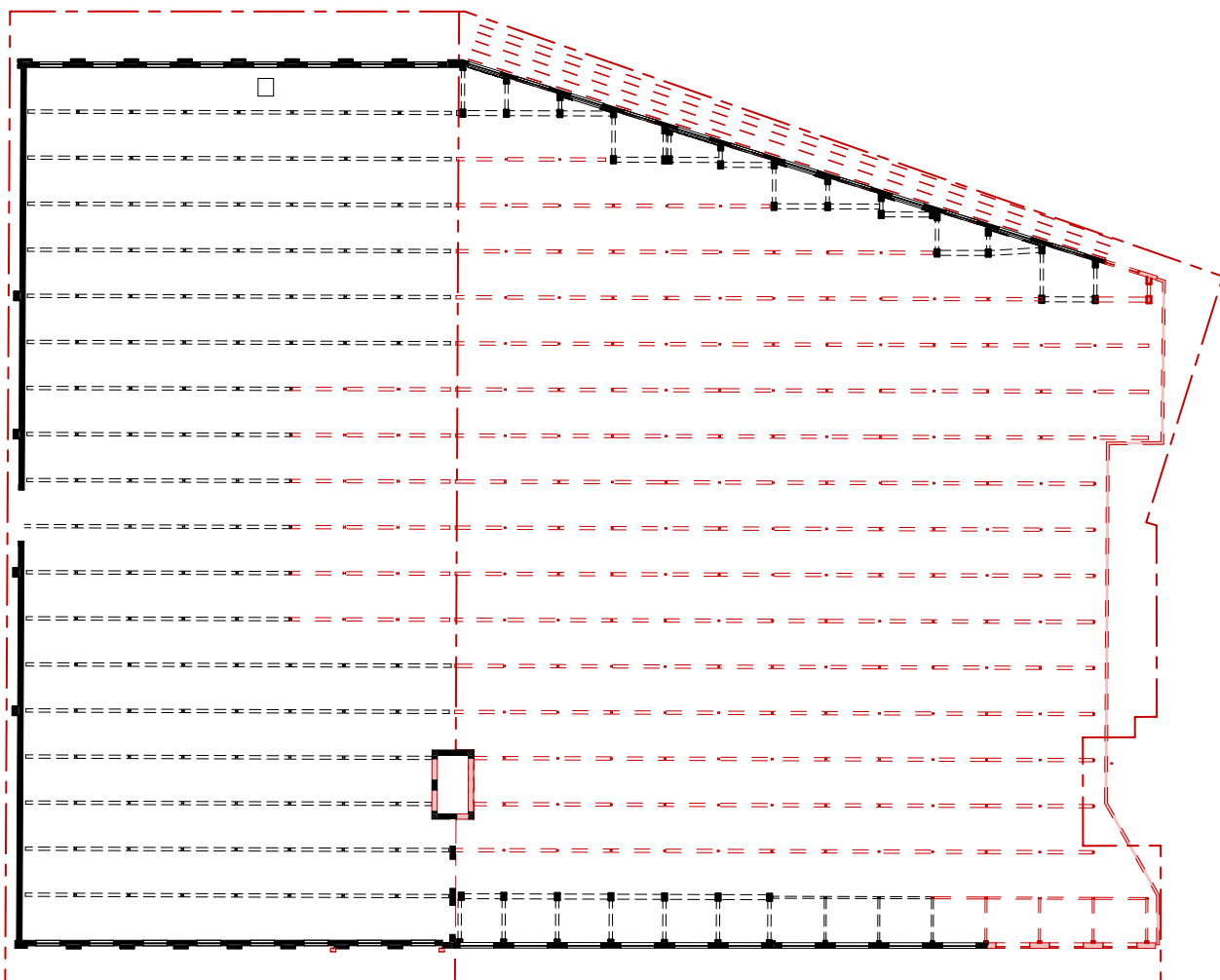
1950s BUILDING
- Asbestos roof and steel trusses to be removed.
- Metal clad southern wall to be removed.
- Brick wall above level of ornamental frieze on 1920s building to be removed on east and west elevations.
- Existing external masonry wall and windows at northern end of east and west facade to be demolished to extend storeys.
- All internal floors, columns and beams to be removed, with the exception of steel and concrete framing required to retain existing walls. Timber floor boards, joists, beams and columns to be set aside for reuse subject to condition.



GROUND FLOOR



FIRST FLOOR



SECOND FLOOR

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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

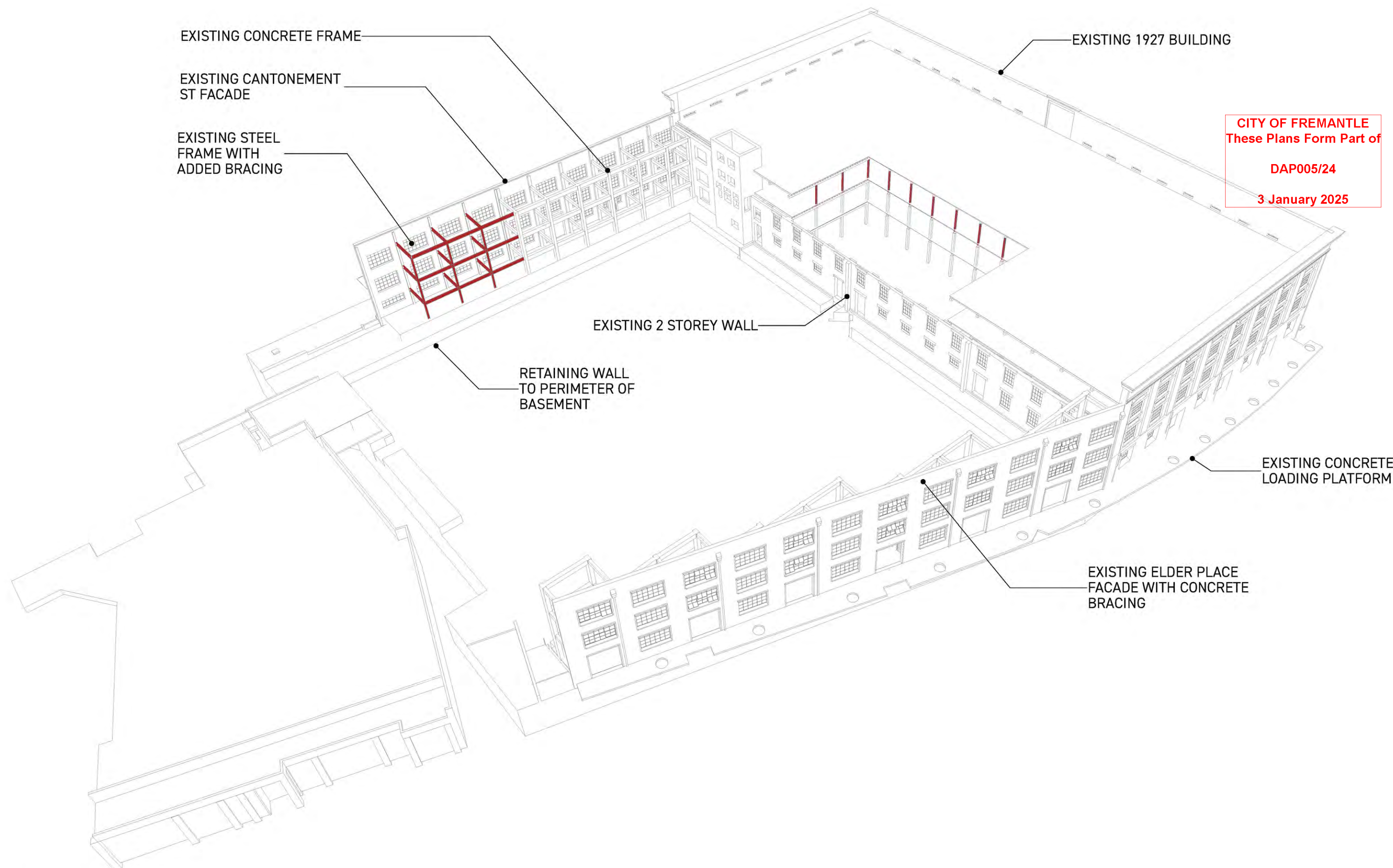
DRAWING
RESOURCE & HERITAGE
CONSERVATION DIAGRAM

PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE 1:500 @A1

0 5 10 20m

PROJECT NO. 2204
DRAWING NO. DA003
REVISION A



RETAINED ELEMENTS



EAST ELEVATION (CANTONEMENT STREET)



SOUTH ELEVATION (GOLDSBOROUGH STREET)



WEST ELEVATION (ELDER PLACE)

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RESOURCE & HERITAGE MANAGEMENT
NOTES

1920s BUILDING
• Asbestos roof and steel trusses to be removed.
• Existing brick wall above ornamental frieze to be removed on east, west and south elevations. Remaining brick heads to be retained and replaced.
• Existing timber floor to be removed and set aside for reuse subject to condition.
• Existing timber joists, beams and columns in proposed courtyard area to be removed and set aside for reuse. Columns, joists and beams to be removed as required to facilitate the insertion of 2 new service and lift/shaft cores as shown on proposed plans.

1950s BUILDING
• Asbestos roof and steel trusses to be removed.
• Metal clad southern wall to be removed.
• Brick wall above level of ornamental frieze on 1920s building to be removed on east and west elevation.
• Existing external masonry wall and windows at northern end of east and west facade to be demolished to extent shown.
• All internal floors, columns and beams to be removed, with the exception of steel and concrete framing required to retain existing walls. Timber floor boards, joists, beams and columns to be set aside for reuse subject to condition.

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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

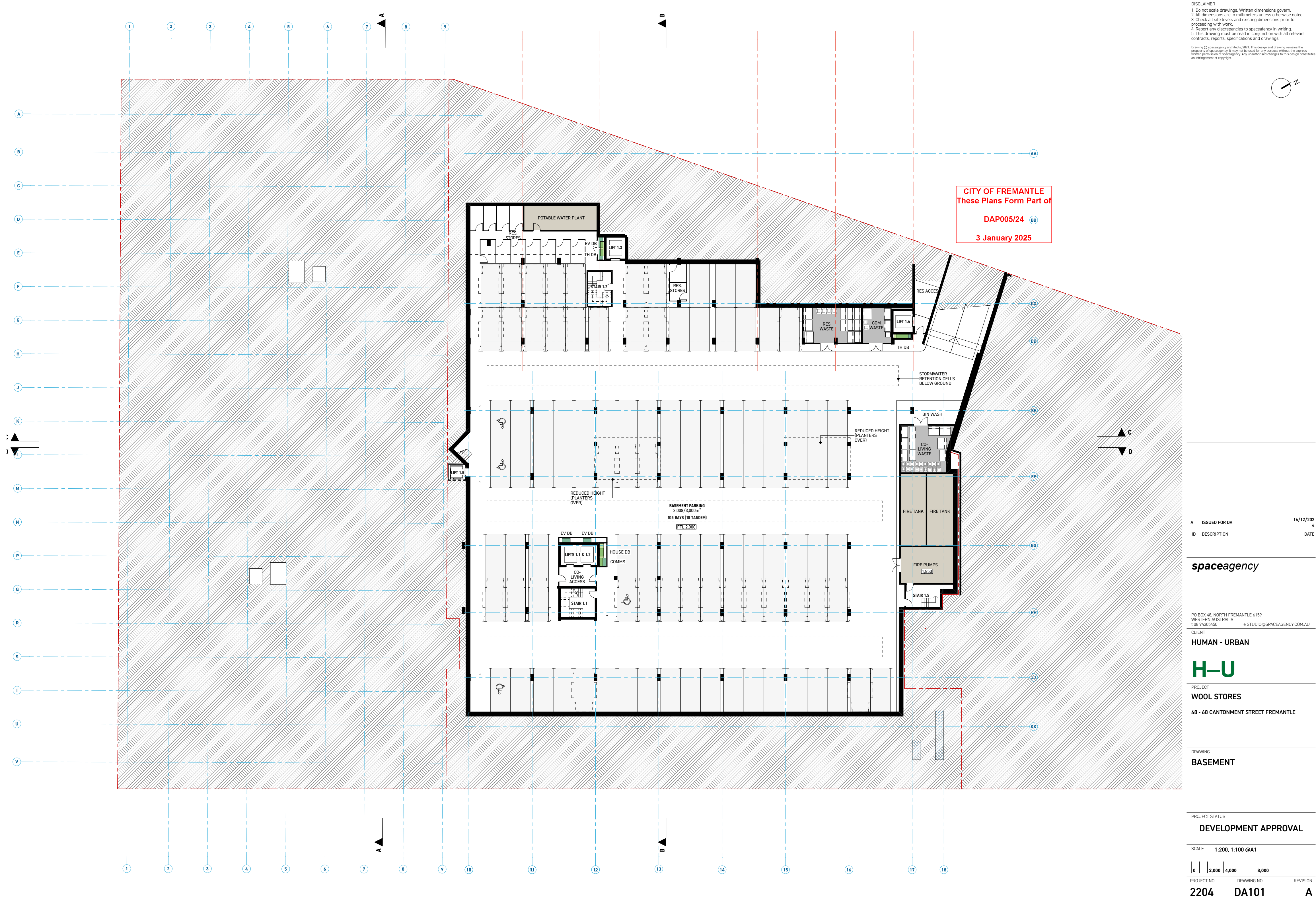
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RESOURCE & HERITAGE
CONSERVATION DIAGRAM

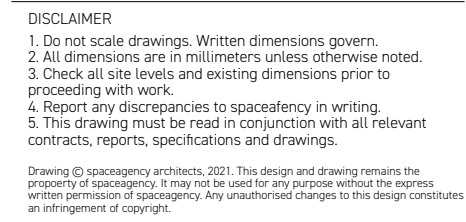
PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE 1:500 @A1

0 5 10 20m

PROJECT NO 2204 DRAWING NO DA004 REVISION A





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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING

GROUND FLOOR

PROJECT STATUS

DEVELOPMENT APPROVAL

SCALE 1:1, 1:100, 1:200 @A1

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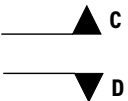
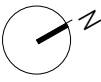
PROJECT NO	DRAWING NO
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2204 DA102





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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
SECOND FLOOR

PROJECT STATUS
DEVELOPMENT APPROVAL

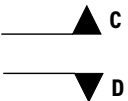
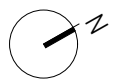
SCALE 1:200 @A1

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PROJECT NO 2204
DRAWING NO DA104
REVISION B



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PROJECT
WOOL STORES
48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
THIRD FLOOR

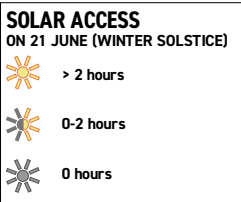
PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE 1:200 @A1

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PROJECT NO 2204
DRAWING NO DA105
REVISION B

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* 0-2 hours
* 0 hours



A diagram showing a circle with a radius vector labeled z pointing from the center to the circumference.

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WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING

FOURTH FLOOR

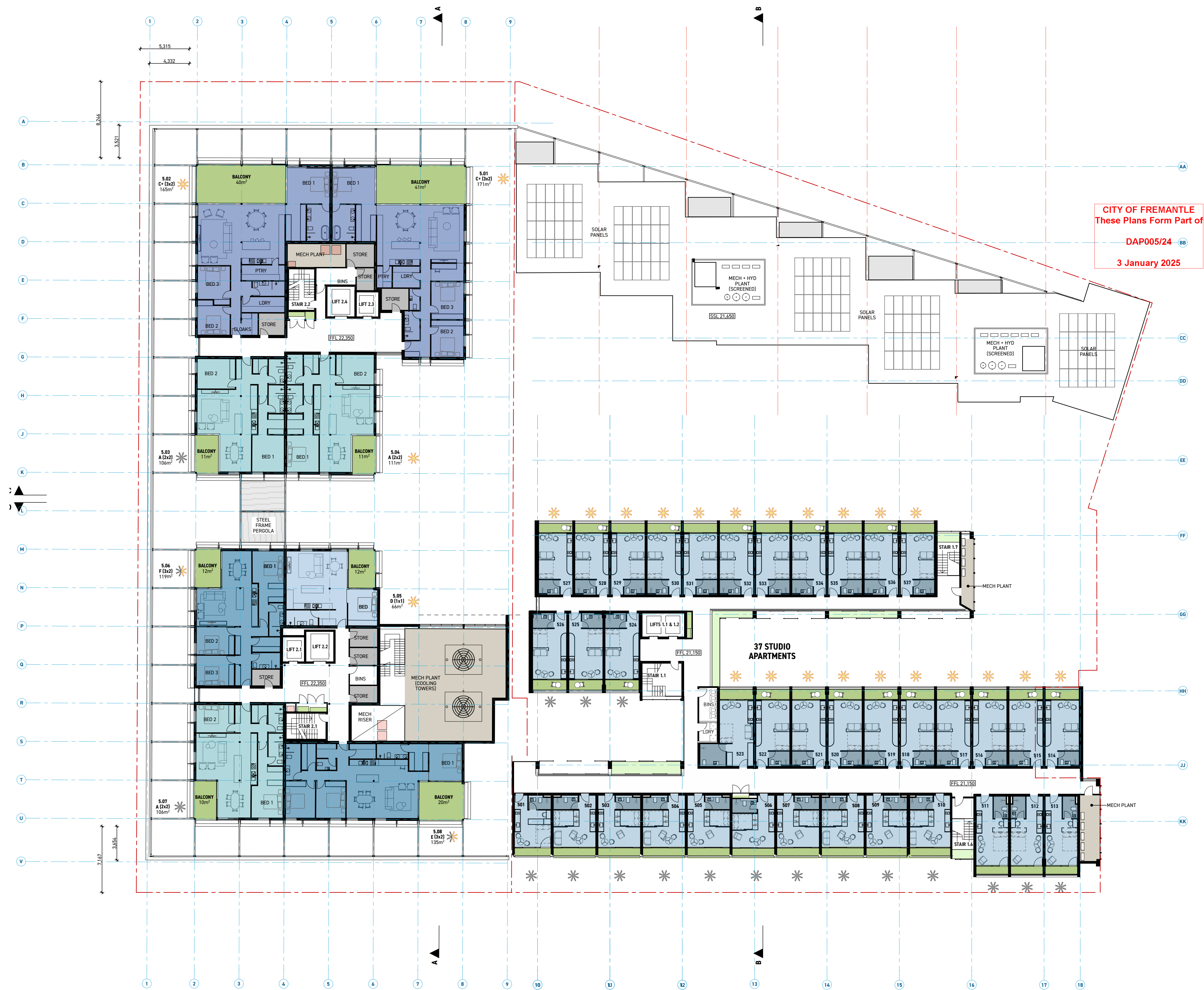
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DEVELOPMENT APPROVAL

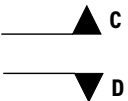
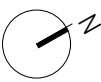
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WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
FIFTH FLOOR

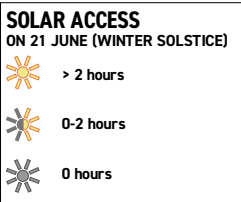
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DEVELOPMENT APPROVAL

SCALE 1:200 @A1

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DRAWING NO DA107
REVISION B

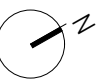
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* 0 hours



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3 January 2025

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WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING

SIXTH FLOOR

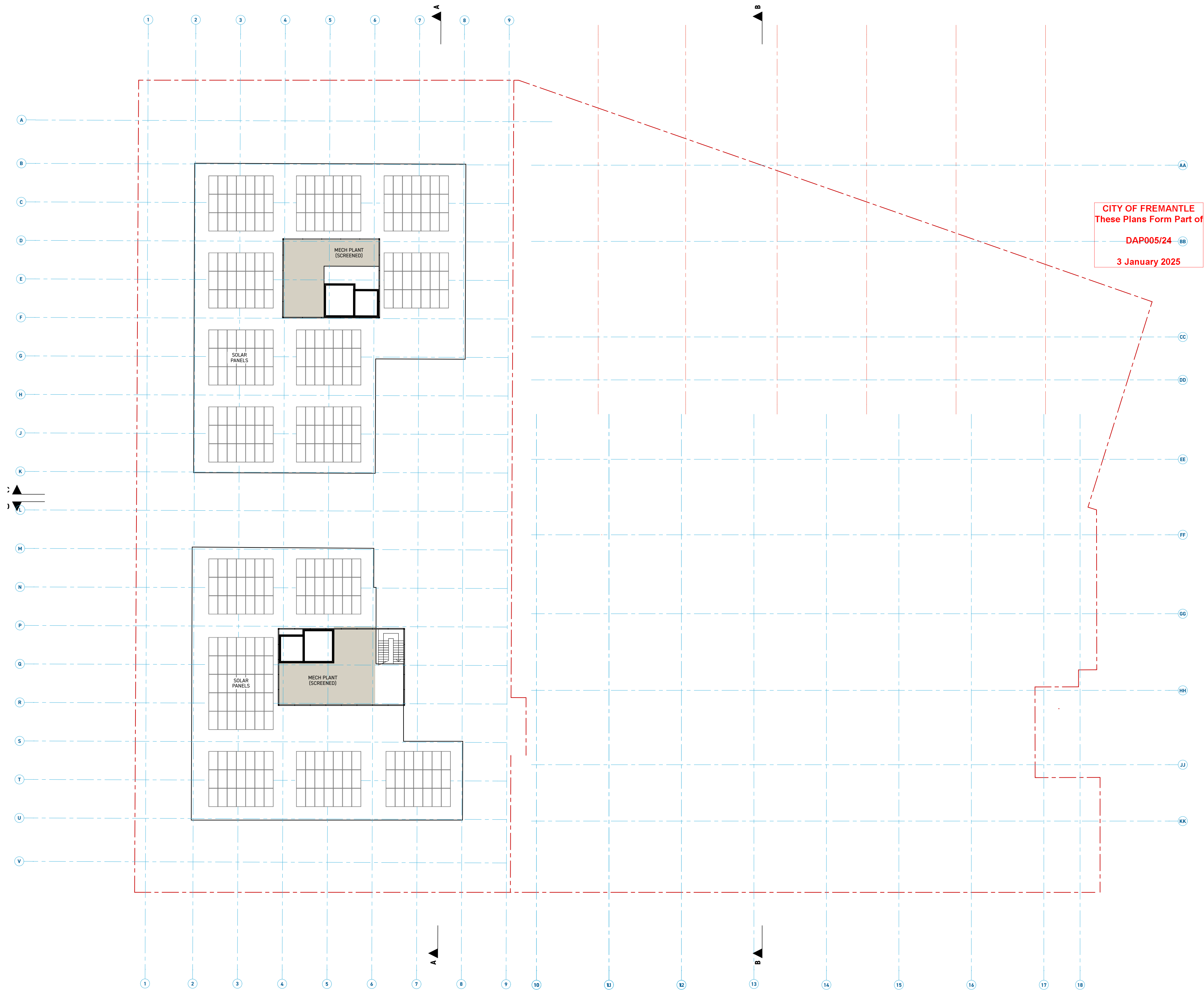
PROJECT STATUS

DEVELOPMENT APPROVAL

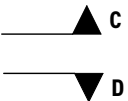
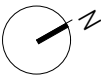
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PROJECT NO	DRAWING NO	REVISION
2204	DA108	B



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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING

ROOF

PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE 1:200 @A1

0 2,000 4,000 8,000

PROJECT NO. 2204 DRAWING NO. DA109 REVISION A



WEST ELEVATION (ELDER PLACE)

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- MATERIALS**
- A EXISTING BRICK MASONRY AND STUCCO (RESTORED)
 - B METAL FRAMED WINDOWS
 - C GALVANISED STEEL FRAME
 - D NEW GLAZED DOORS
 - E NEW PERFORATED ROLLER SHUTTER
 - F NEW PERFORATED SHUTTER / BLINDS
 - G METAL BALUSTRADES
 - H METAL CLADDING
 - I METAL WINDOW SHROUDS
 - J WIRE CABLE MESH BALUSTRADE AND TRELLIS
 - K METAL BALUSTRADE / FENCE
 - L METAL LOUVRES (ACOUSTIC WHERE REQUIRED)
 - M BRICK LATTICE SCREEN
 - N BREECLOCK SCREEN
 - O PATTERNED PRE-CAST CONCRETE
 - P REINFORCED MASONRY
 - S EXISTING METAL CANOPY (RESTORED)

- NOTES**
- 1 REMOVE EXISTING WINDOWS AND REINSTATE WINDOWS IN ORIGINAL LOCATIONS USING EXISTING LINTELS AS A GUIDE



EAST ELEVATION (CANTONMENT STREET)

A	ISSUED FOR DA	16/12/202
ID	DESCRIPTION	DATE

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PROJECT

WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING

ELEVATIONS

PROJECT STATUS

DEVELOPMENT APPROVAL

SCALE 1:200 @A1

0 2,000 4,000 8,000

PROJECT NO

2204

DRAWING NO

DA201

REVISION

A



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MATERIALS
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B METAL FRAMED WINDOWS
C GALVANISED STEEL FRAME
D NEW GLAZED DOORS
E NEW PERFORATED ROLLER SHUTTER
F NEW PERFORATED SHUTTER / BLINDS
G METAL BALUSTRADES
H METAL CLADDING
J METAL WINDOW SHROUDS
K WIRE CABLE MESH BALUSTRADE AND TRELLIS
L METAL BALUSTRADE / FENCE
M METAL LOUVRES (ACOUSTIC WHERE REQUIRED)
N BRICK LATTICE SCREEN
O BREECLOCK SCREEN
P PATTERNED PRE-CAST CONCRETE
Q RENDERED MASONRY
S EXISTING METAL CANOPY (RESTORED)

NOTES
1 REMOVE EXISTING WINDOWS AND REINSTATE WINDOWS IN ORIGINAL LOCATIONS USING EXISTING LINTELS AS A GUIDE

A	ISSUED FOR DA	16/12/2024
ID	DESCRIPTION	DATE

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CLIENT

HUMAN - URBAN

H-U

PROJECT

WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING

ELEVATIONS

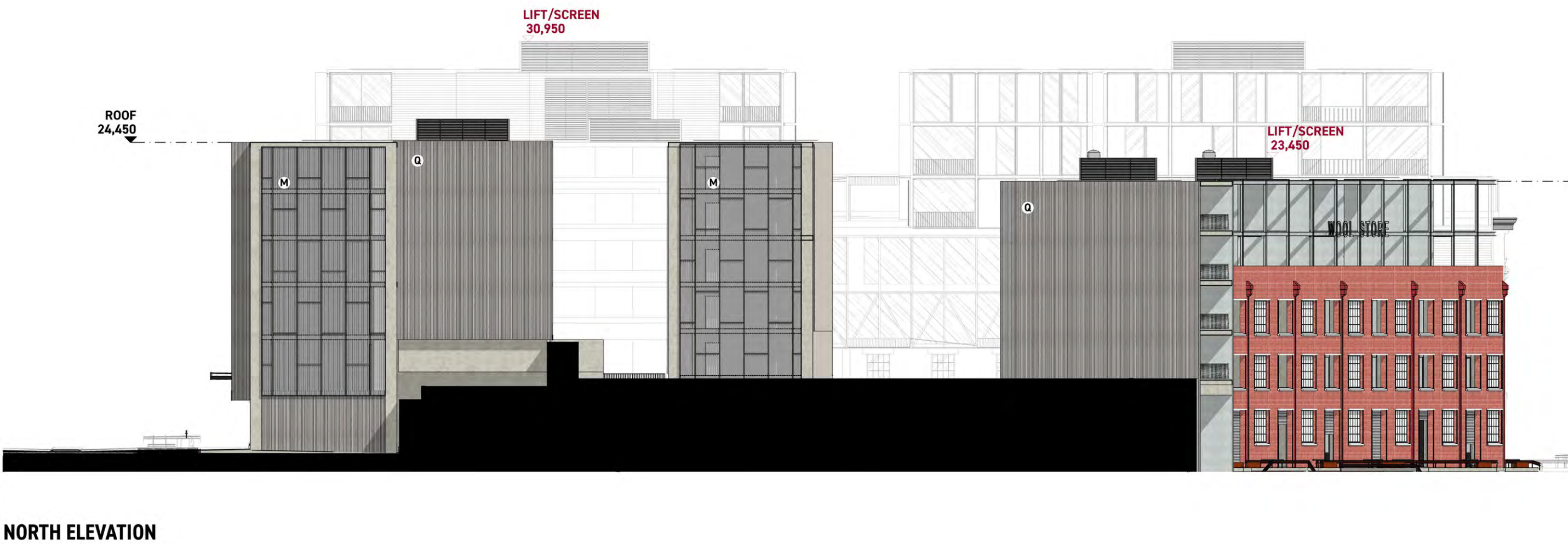
PROJECT STATUS

DEVELOPMENT APPROVAL

SCALE 1:200 @A1

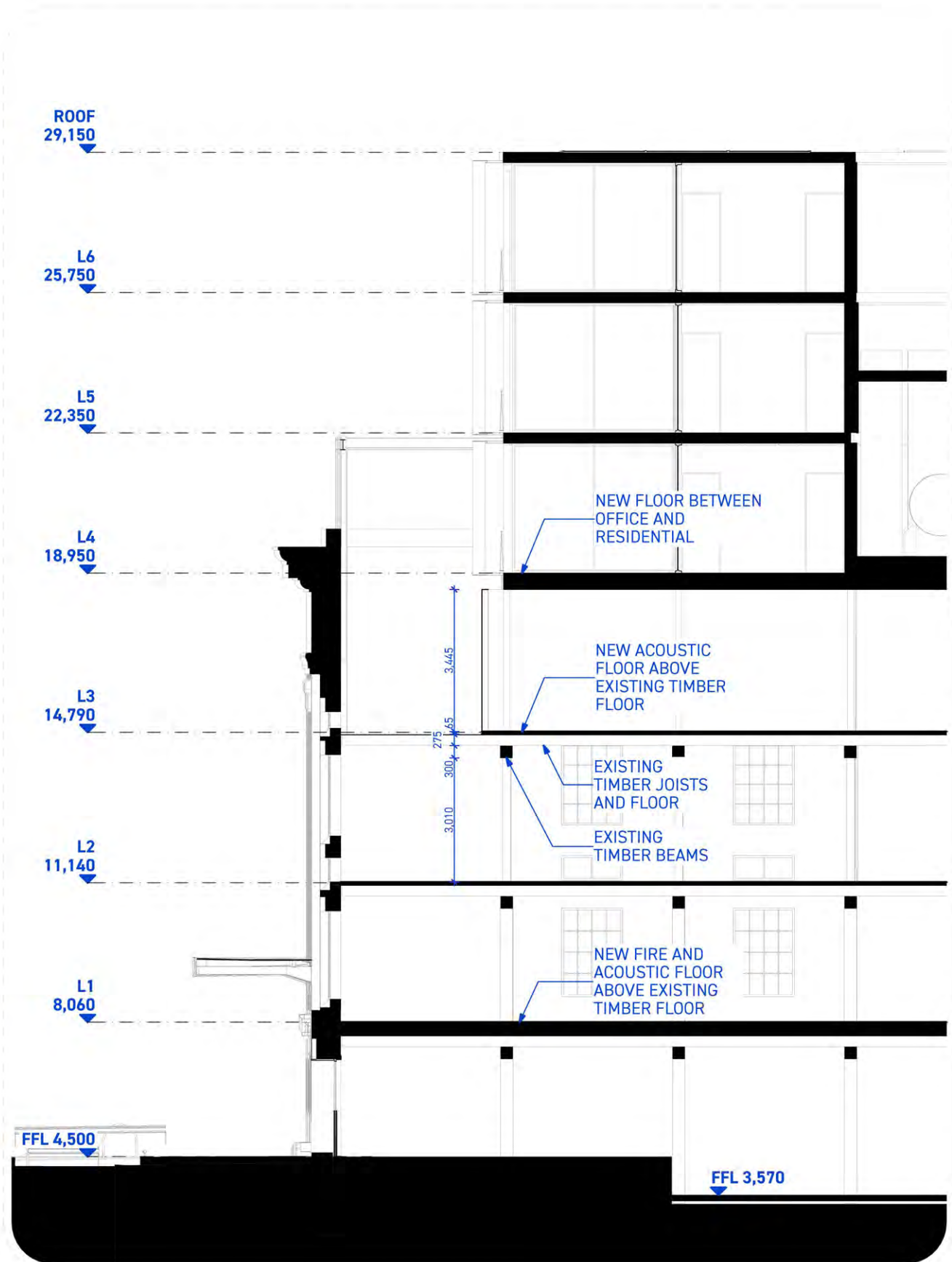
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PROJECT NO	DRAWING NO	REVISION
2204	DA202	A

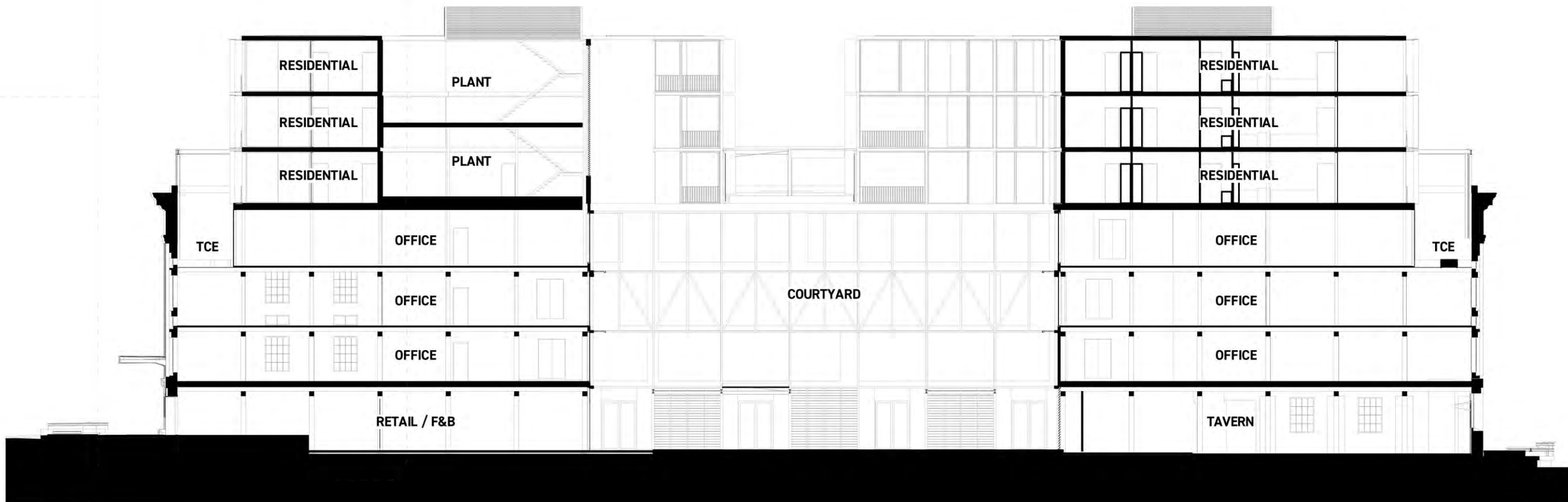




SECTION D



SECTION A



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MATERIALS

- A EXISTING BRICK MASONRY AND STUCCO (RESTORED)
- B METAL WINDOW FRAMES UPGRADED TO ACHIEVE SECTION J COMPLIANCE
- C GALVANISED STEEL FRAME
- D NEW GLAZED DOORS
- E NEW PERFORATED ROLLER SHUTTER
- F NEW PERFORATED SHUTTER / BLINDS
- G METAL BALUSTRADES
- H METAL CLADDING
- I METAL WINDOW SHROUDS
- J WIRE CABLE MESH BALUSTRADE AND TRELLIS
- K METAL RAILINGS AND HANDRAIL
- L METAL LOUVRES (ACOUSTIC WHERE REQUIRED)
- M BRICK LATTICE SCREEN
- N GREENLOCK SCREEN
- O PATTERNED PRE-CAST CONCRETE
- P REINFORCED MASONRY
- S EXISTING METAL CANOPY (RESTORED)

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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

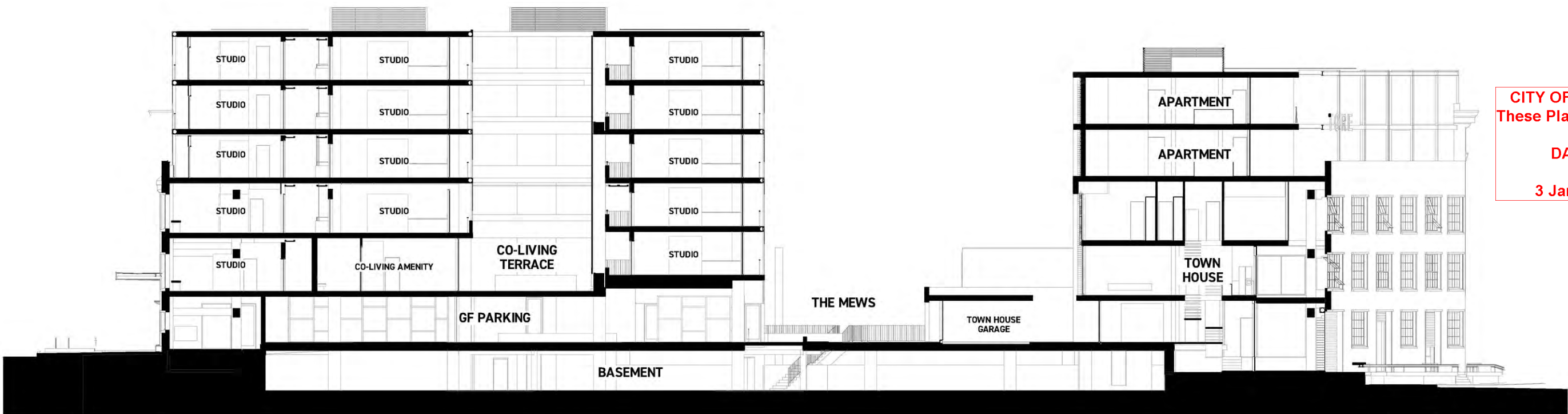
DRAWING
SECTIONS

PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE 1:200, 1:100 @A1

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PROJECT NO	DRAWING NO	REVISION
2204	DA301	A



SECTION B

CITY OF FREMANTLE
These Plans Form Part of
DAP005/24
3 January 2025

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MATERIALS

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- C GALVANISED STEEL FRAME
- D NEW GLAZED DOORS
- E NEW PERFORATED ROLLER SHUTTER
- F NEW PERFORATED SHUTTER / BLINDS
- G METAL BALUSTRADES
- H METAL CLADDING
- J METAL WINDOW SHROUDS
- K WIRE/CABLE MESH BALUSTRADE AND TRELLIS
- L METAL RAILINGS AND HANDRAIL
- M METAL LOUVRES (ACOUSTIC WHERE REQUIRED)
- N BRICK LATTICE SCREEN
- P BREZZBLOCK SCREEN
- Q PATTERNED PRE-CAST CONCRETE
- R RENDERED MASONRY
- S EXISTING METAL CANOPY (RESTORED)

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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
SECTIONS

PROJECT STATUS
DEVELOPMENT APPROVAL

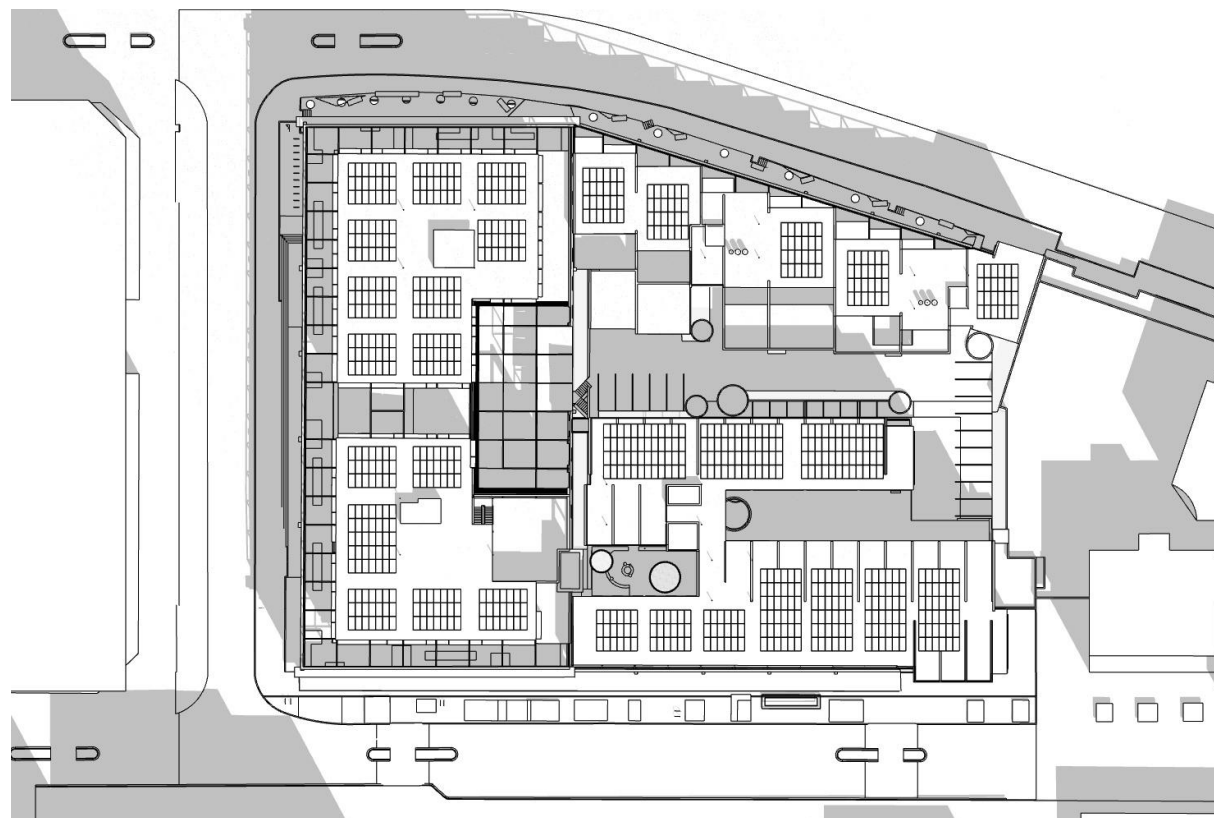
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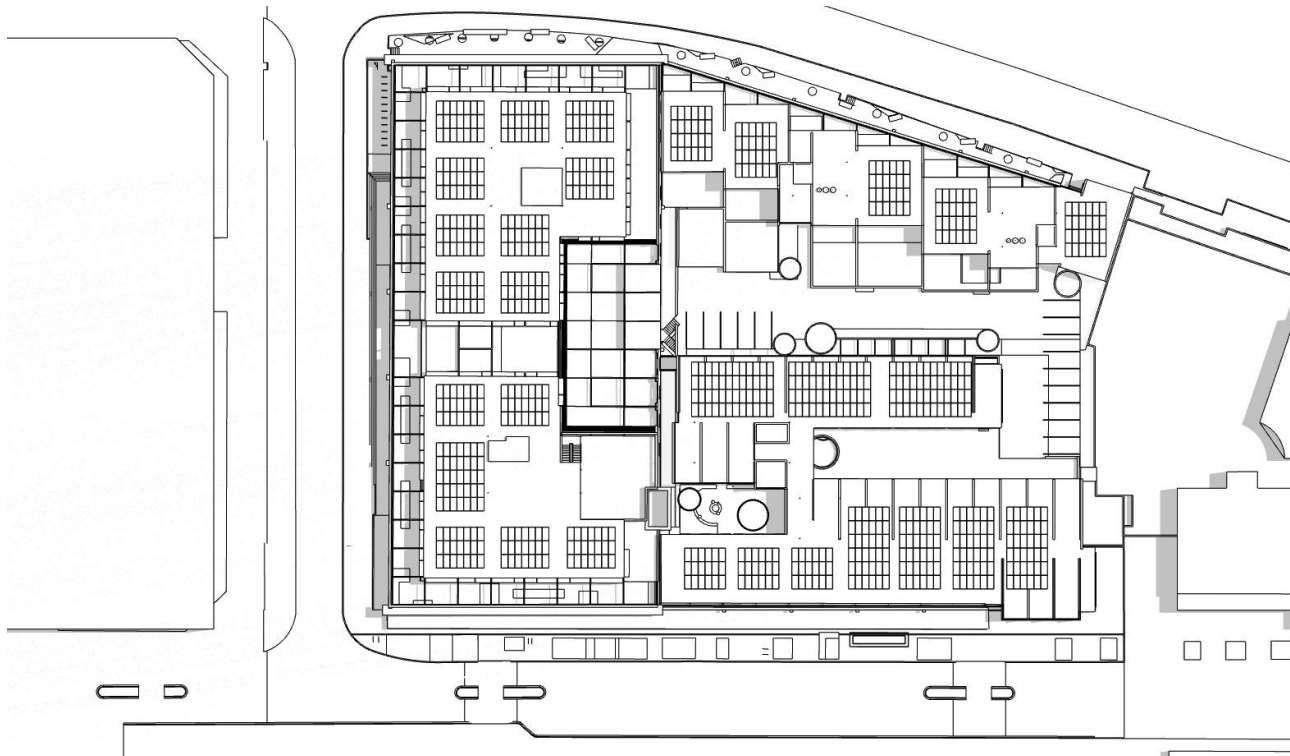
PROJECT NO	DRAWING NO	REVISION
2204	DA302	A



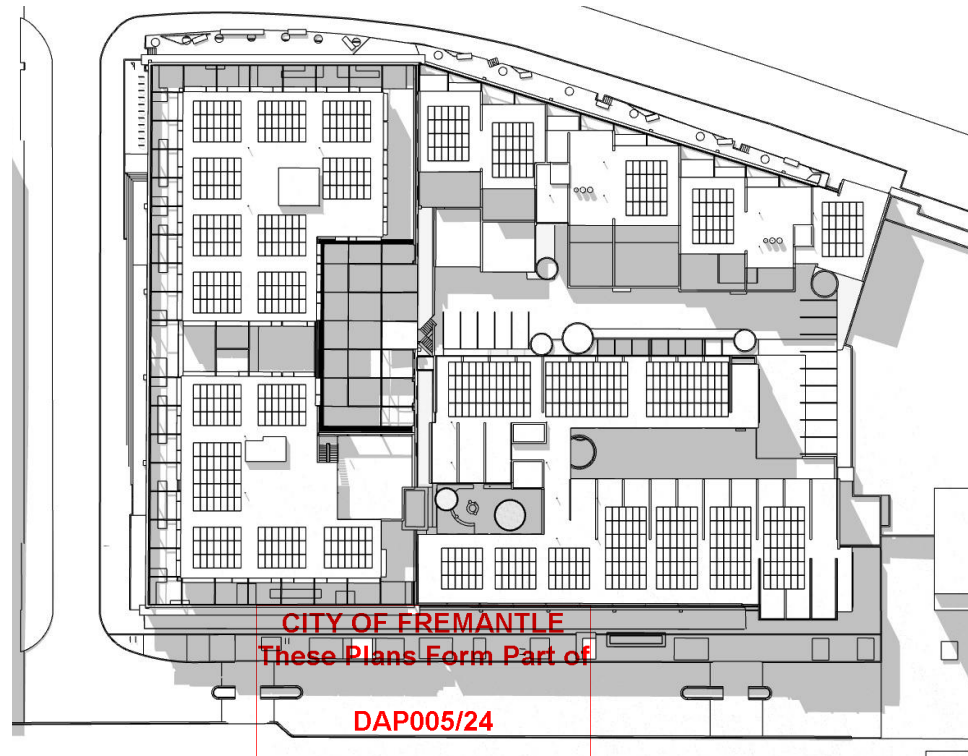
SECTION C



21 DECEMBER : 9AM

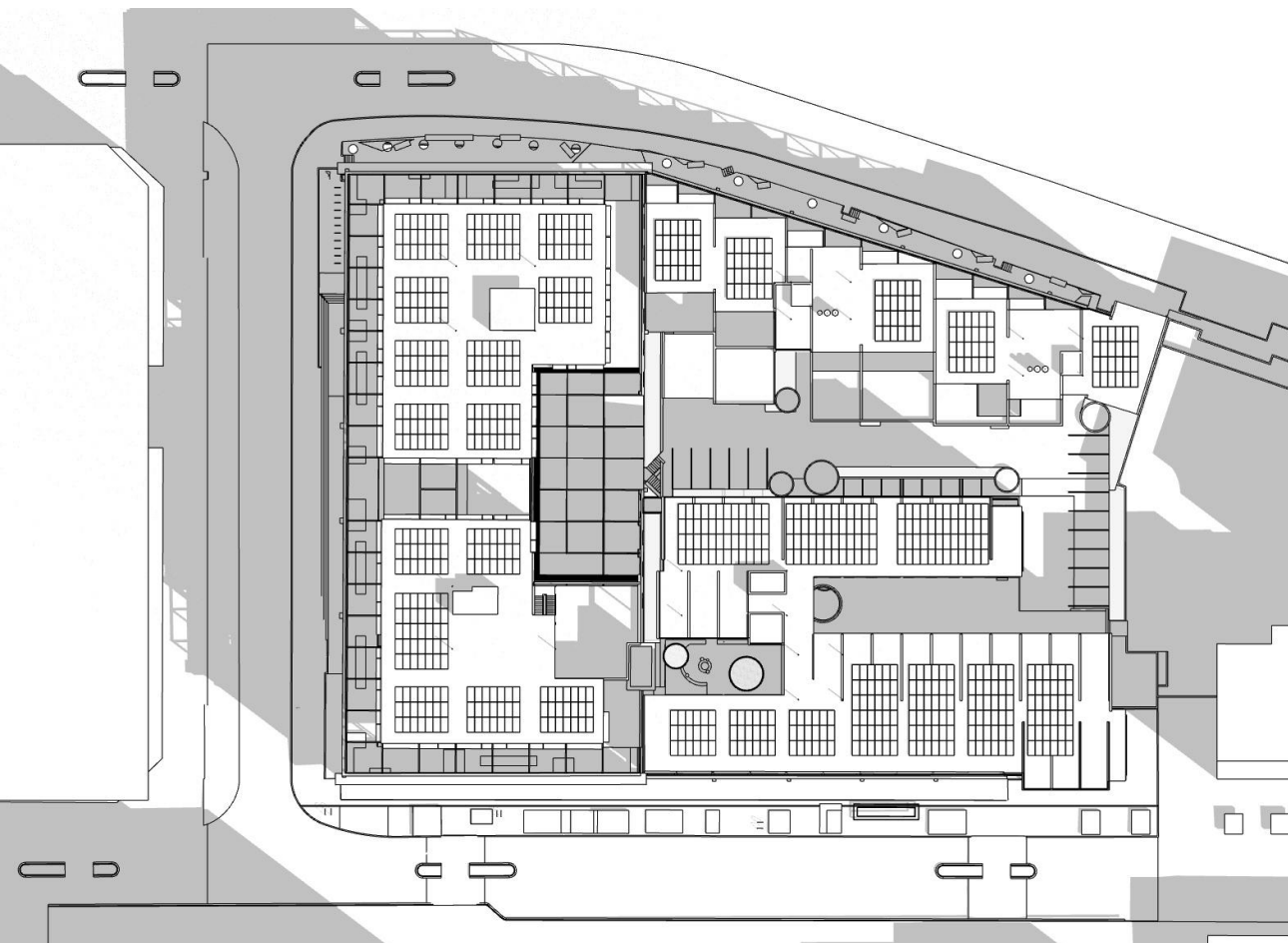
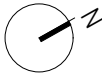


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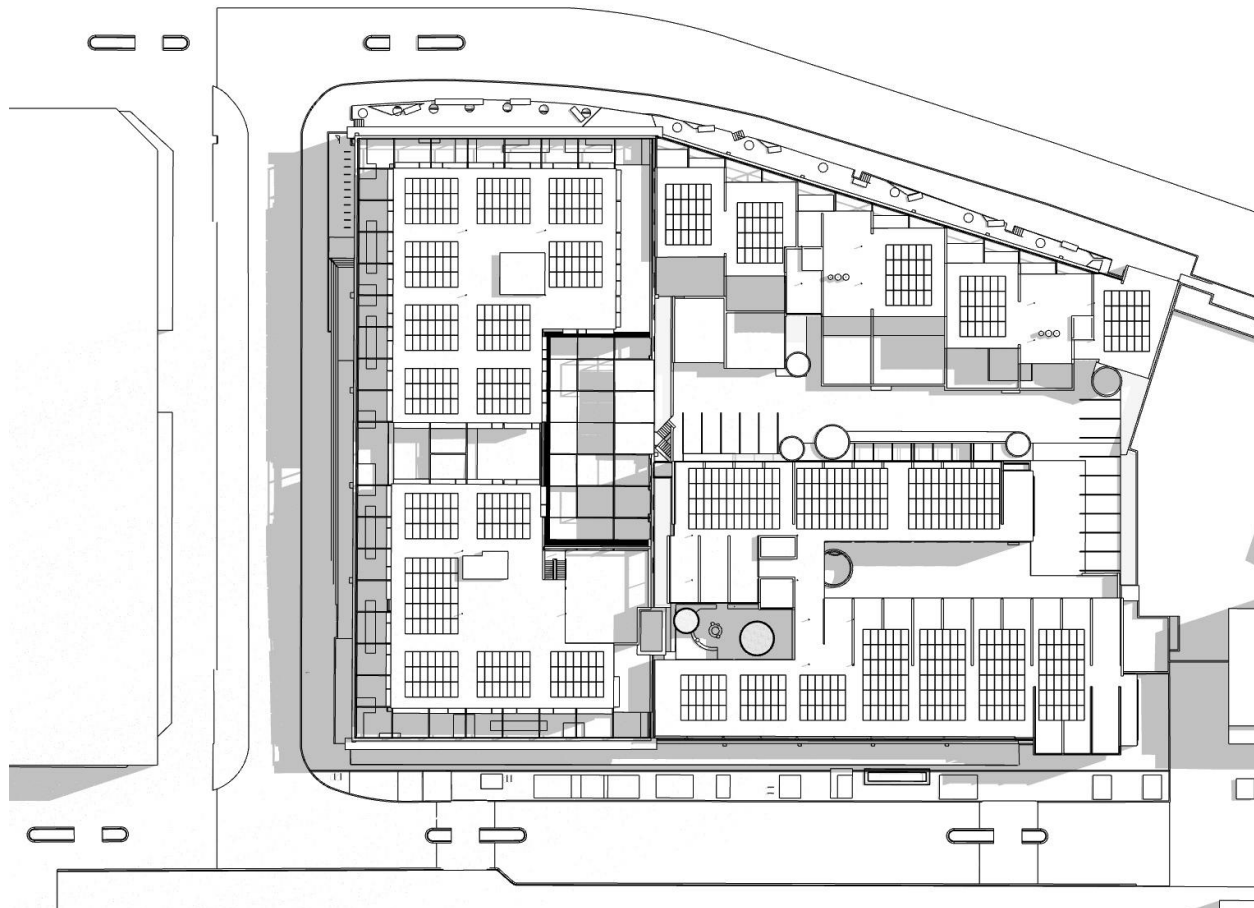


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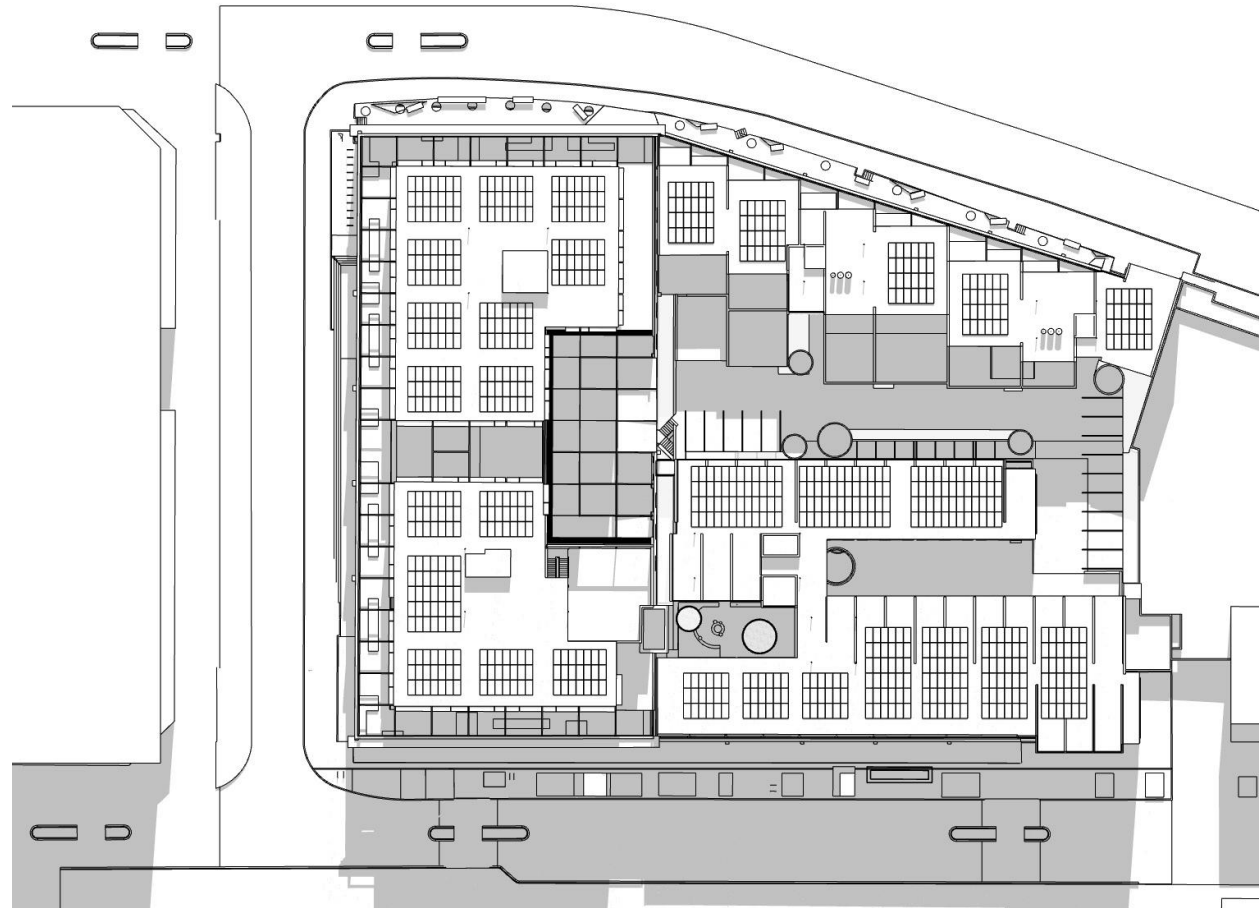
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21 MARCH : 9AM



21 MARCH : 12PM



21 MARCH : 3PM

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PROJECT

WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING

SHADOW STUDY

PROJECT STATUS

DEVELOPMENT APPROVAL

SCALE 1:750 @A1

PROJECT NO

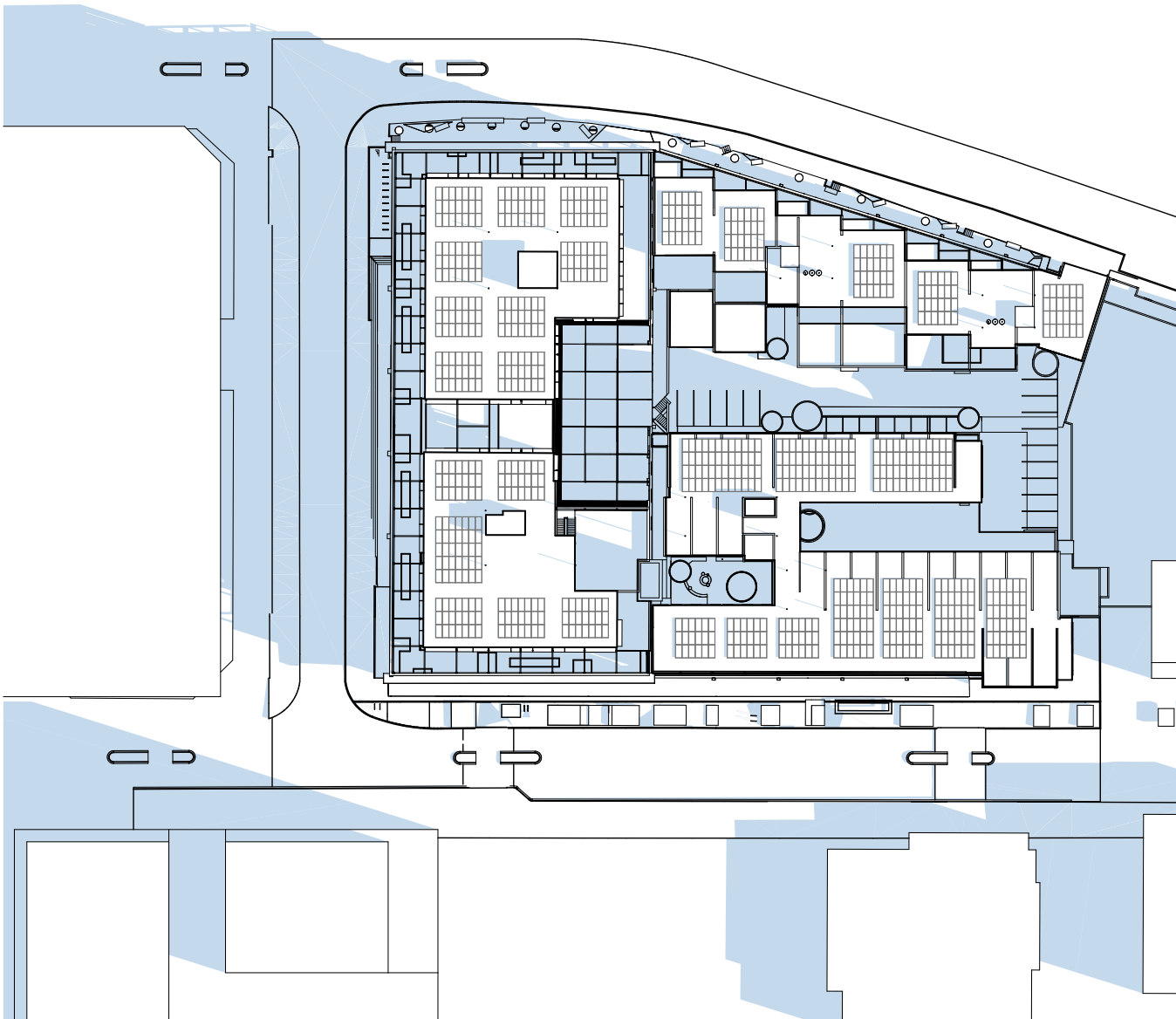
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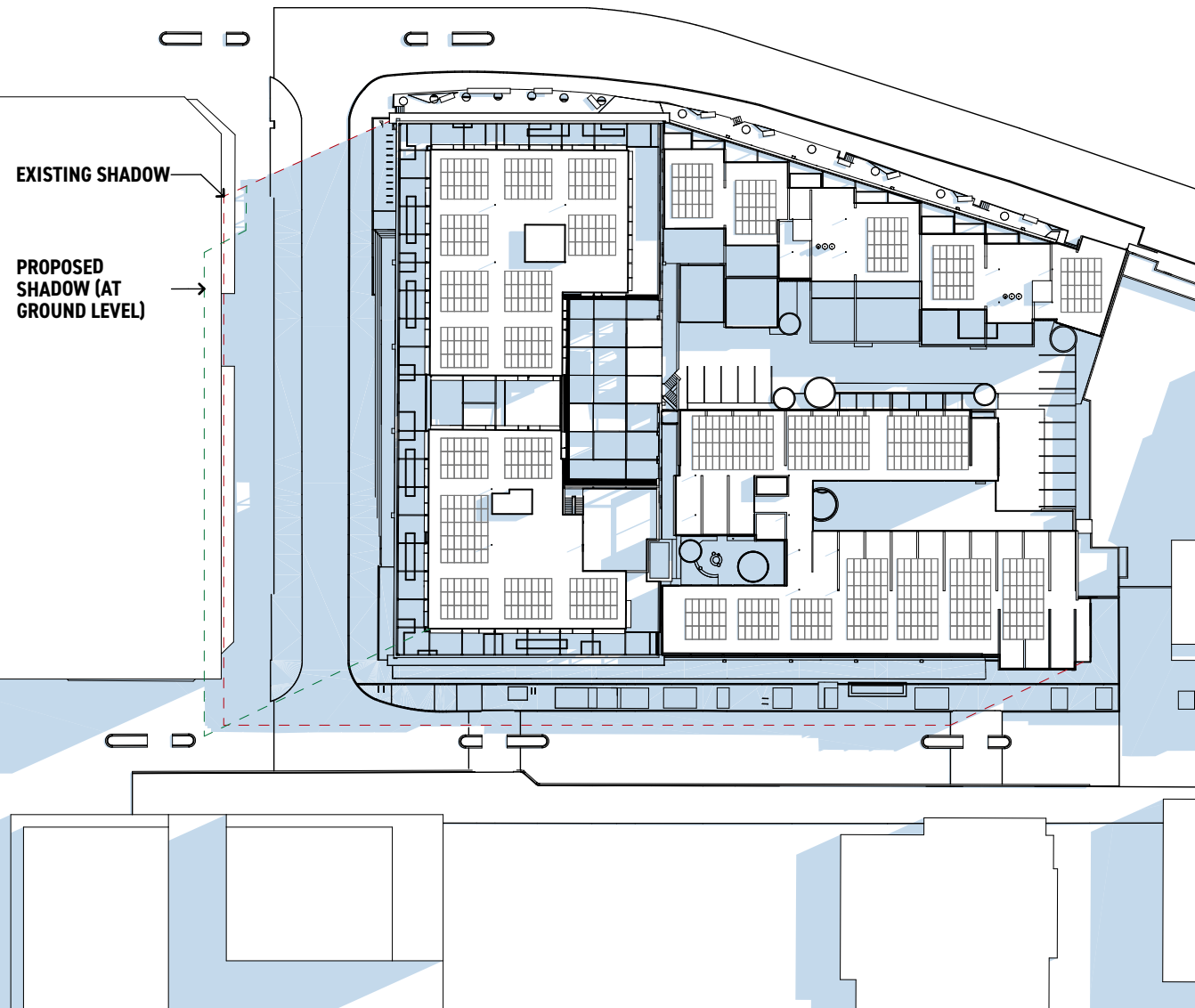
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REVISION

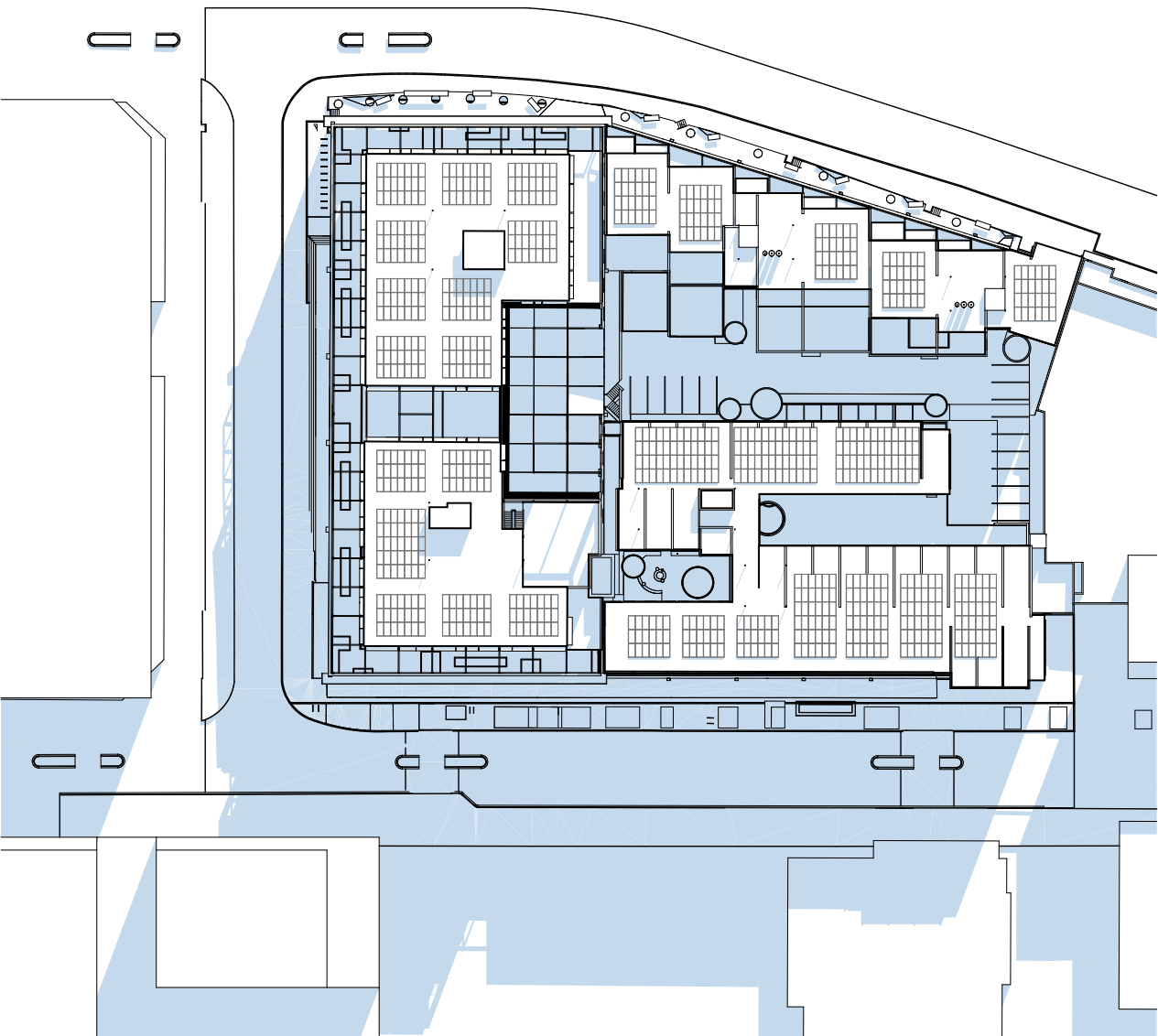
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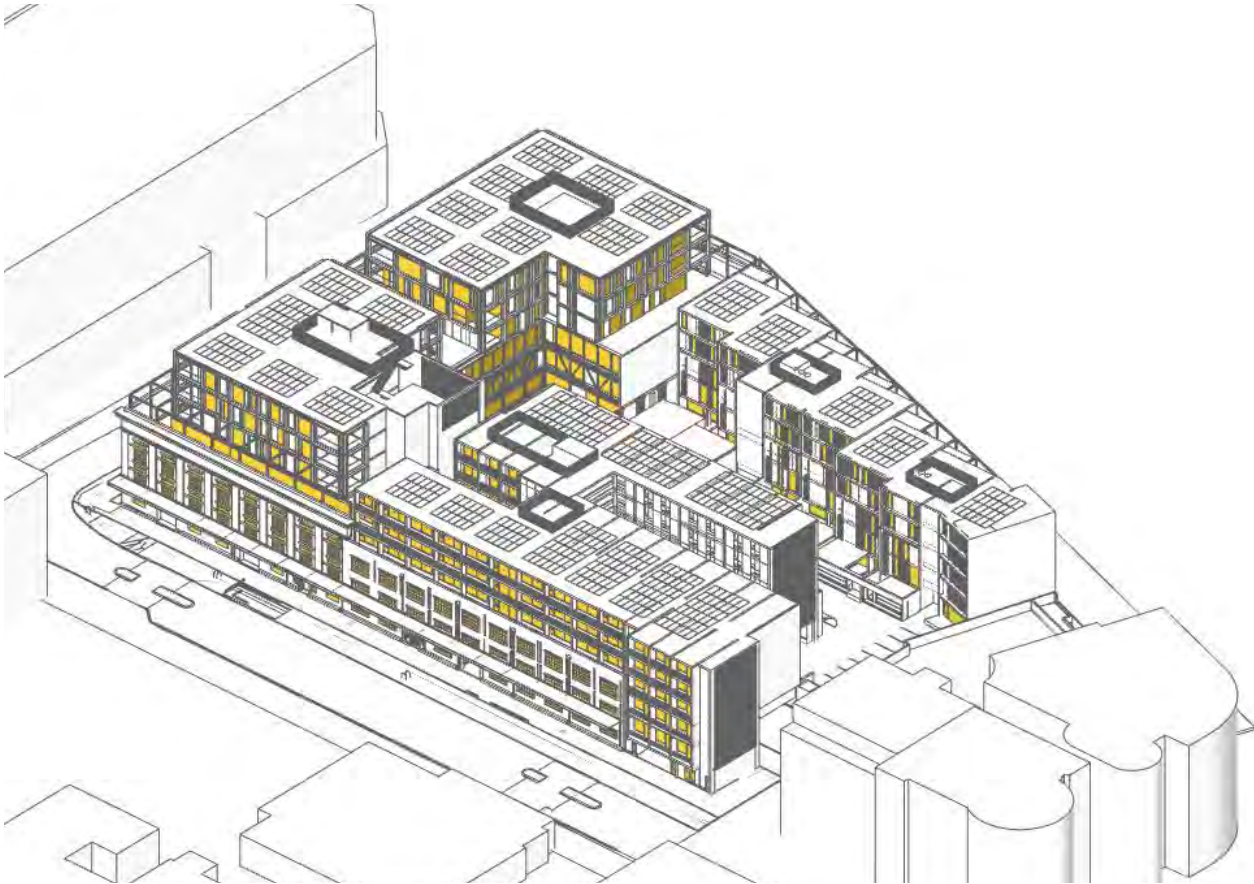
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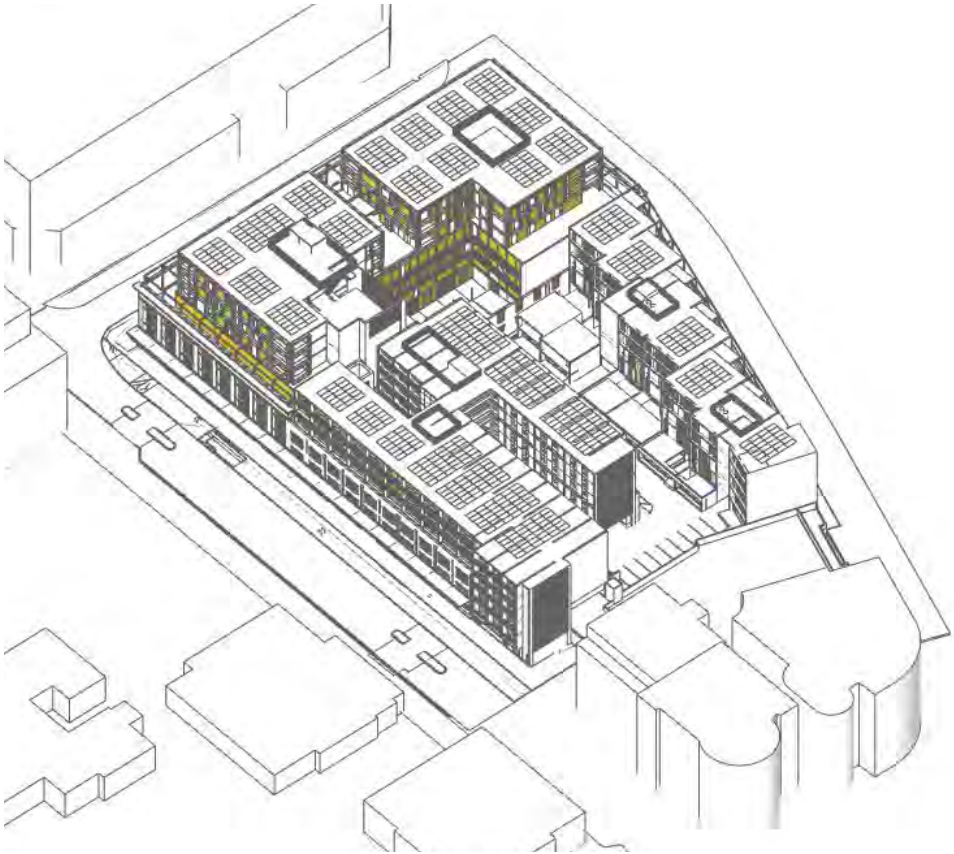
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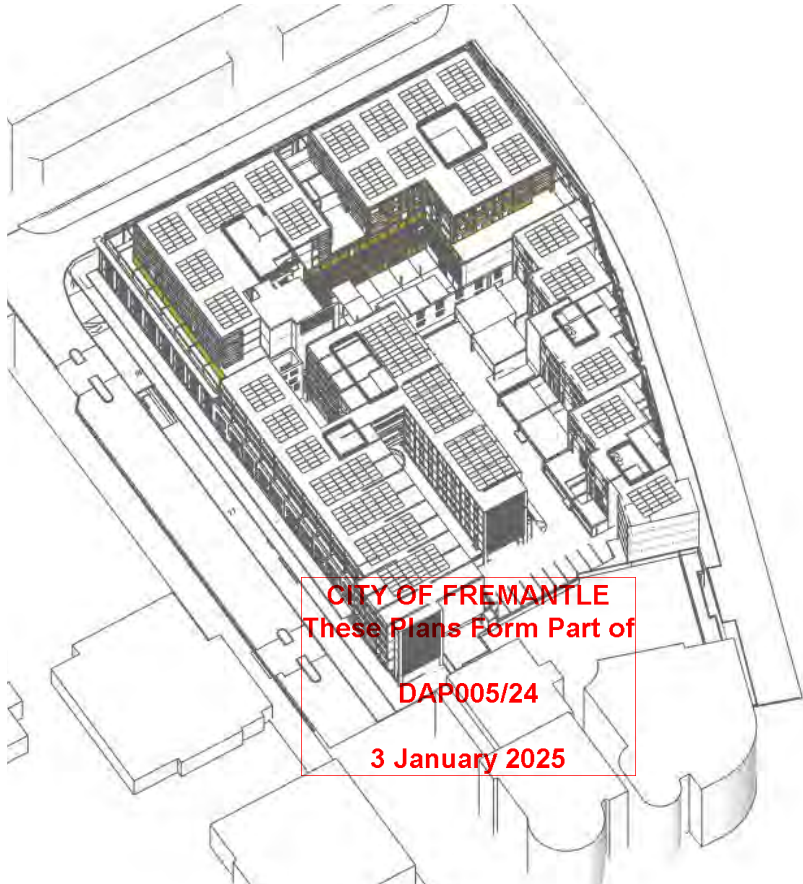
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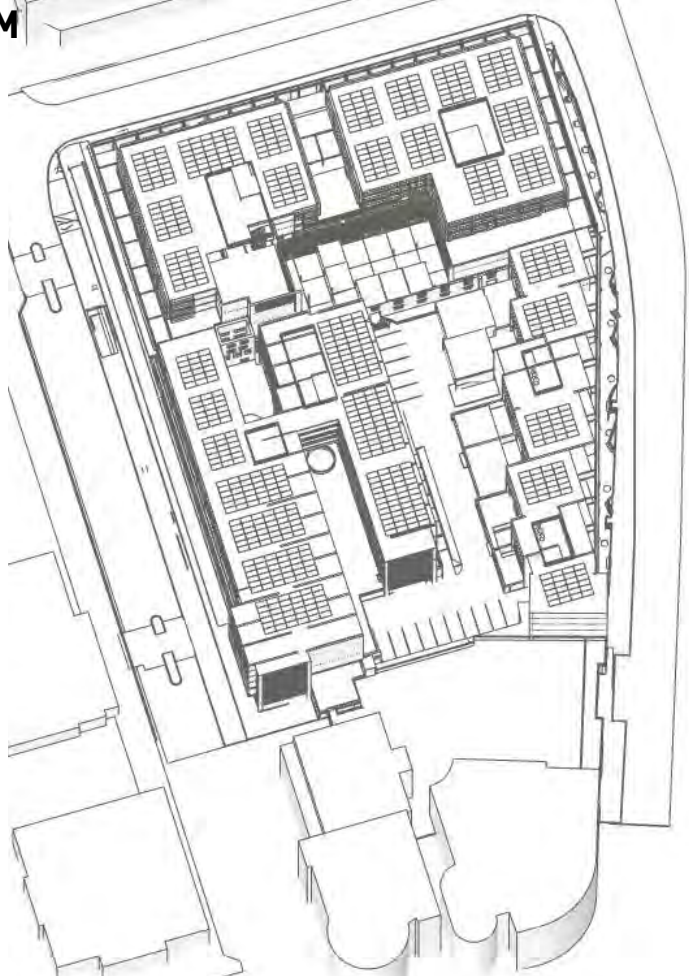
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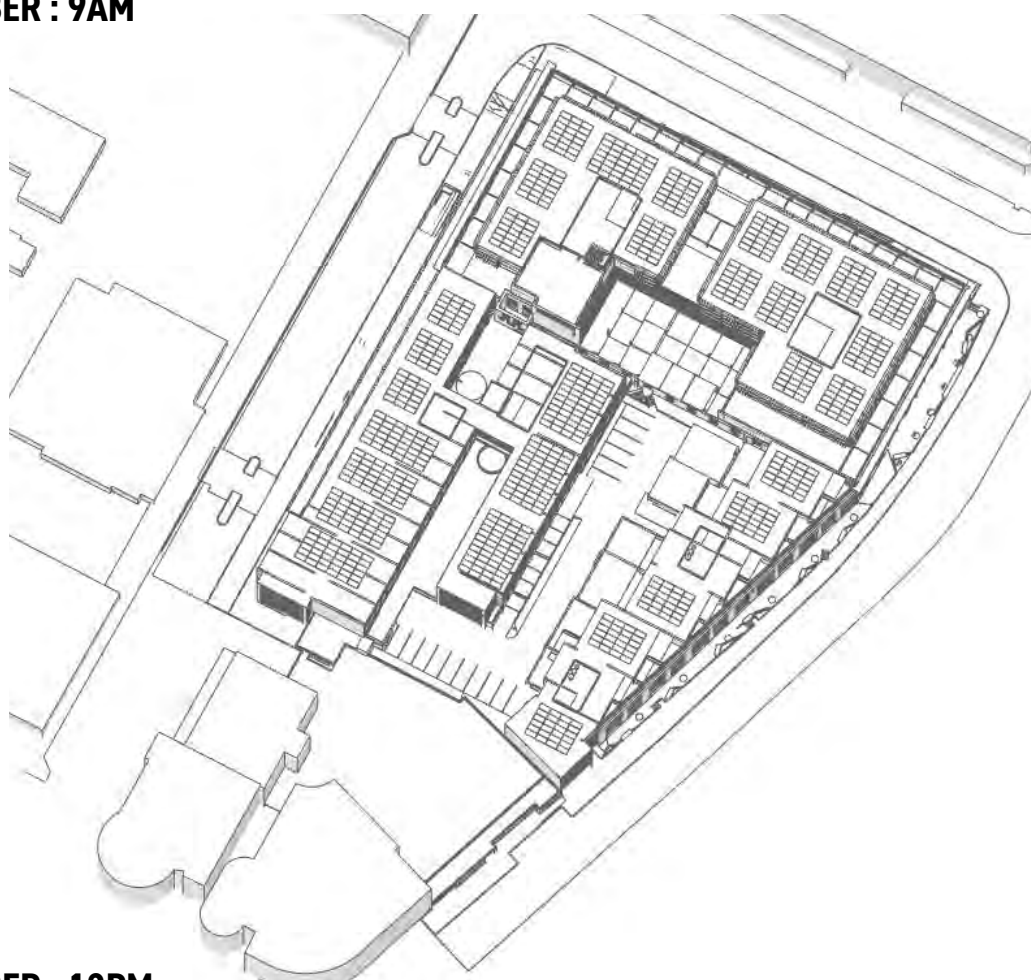
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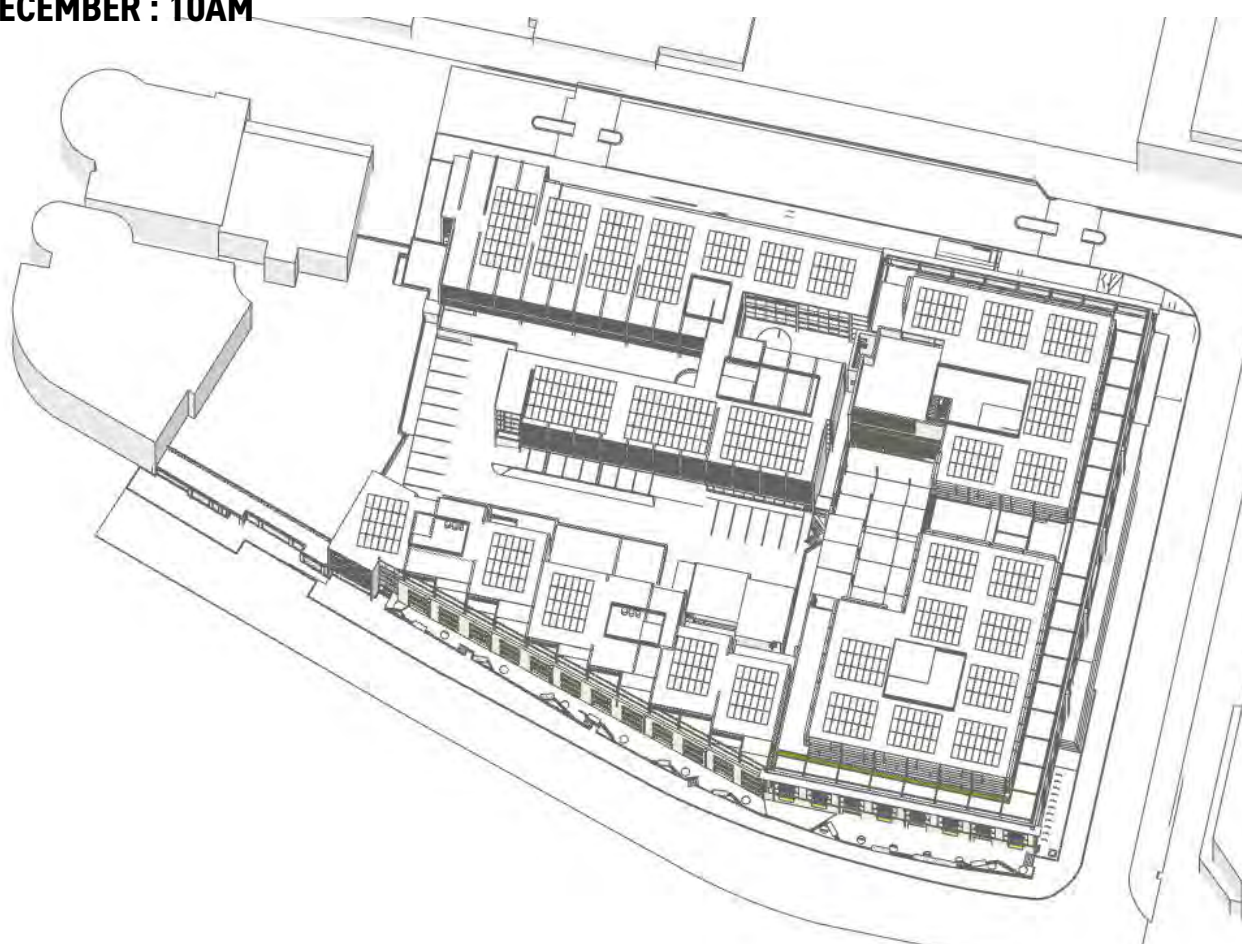
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21 DECEMBER : 11AM



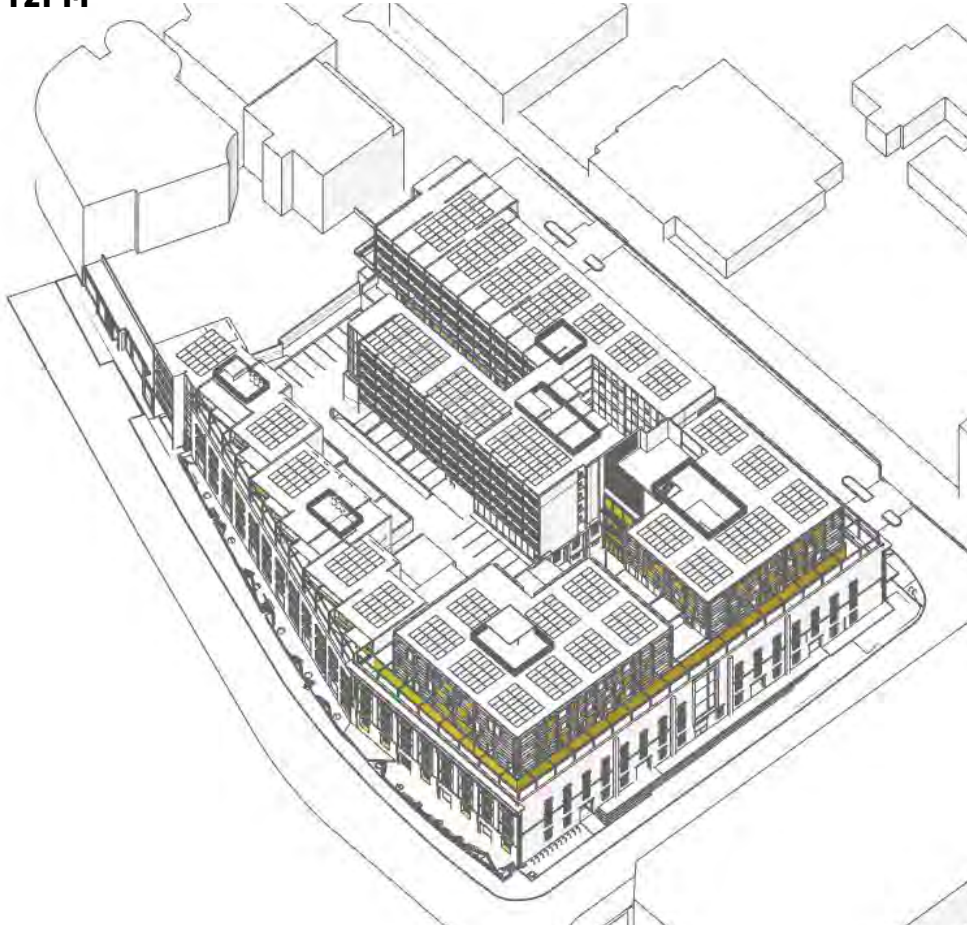
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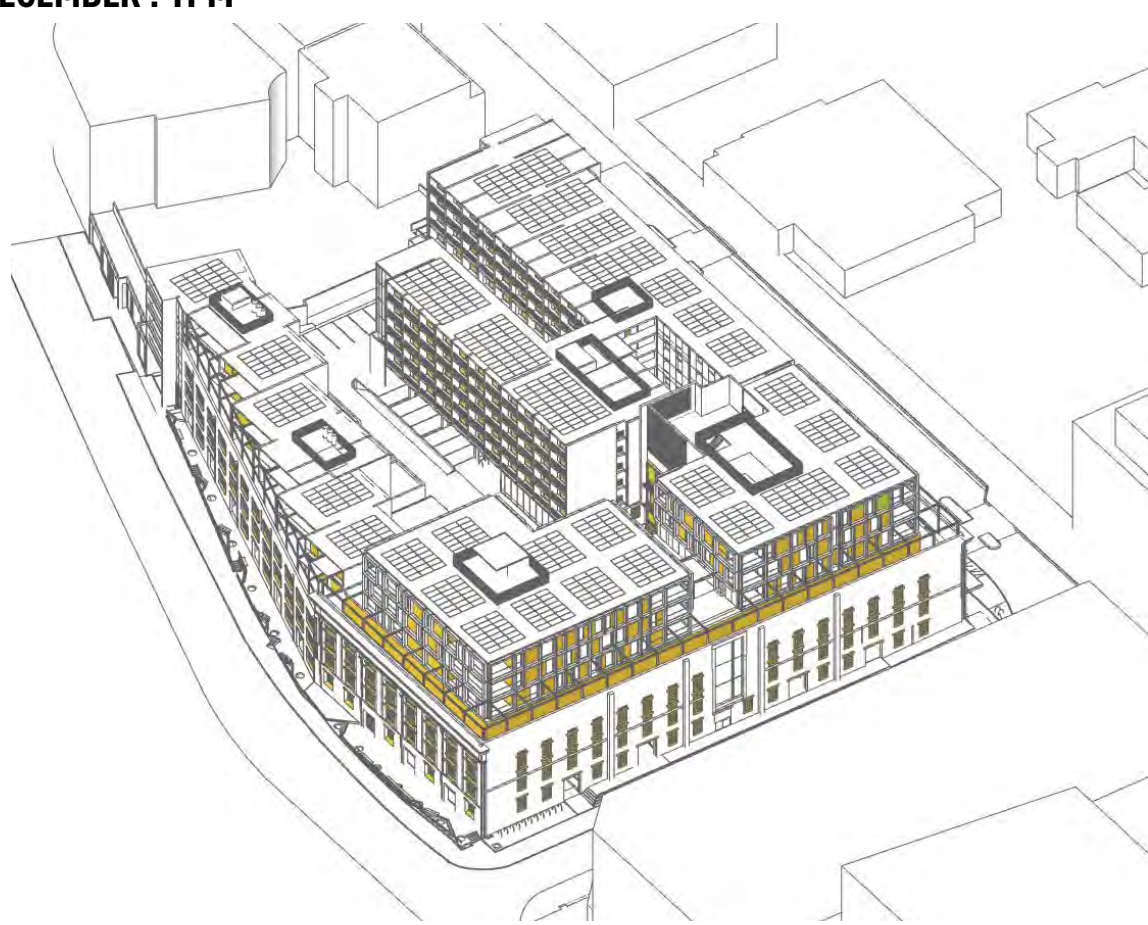
21 DECEMBER : 1PM



21 DECEMBER : 2PM



21 DECEMBER : 3PM



21 DECEMBER : 4PM

THIS DRAWING SHOWS THE SITE AS VIEWED FROM THE POSITION OF THE SUN

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PROJECT
WOOL STORES
48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
SUN STUDY - SUMMER

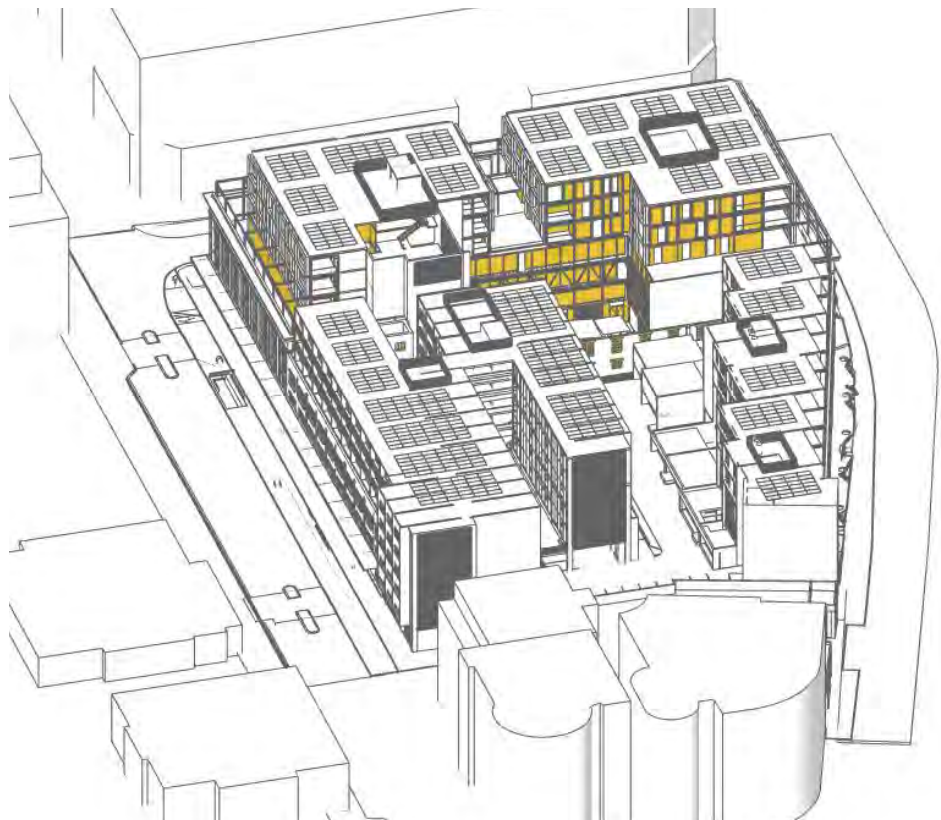
PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE @A1

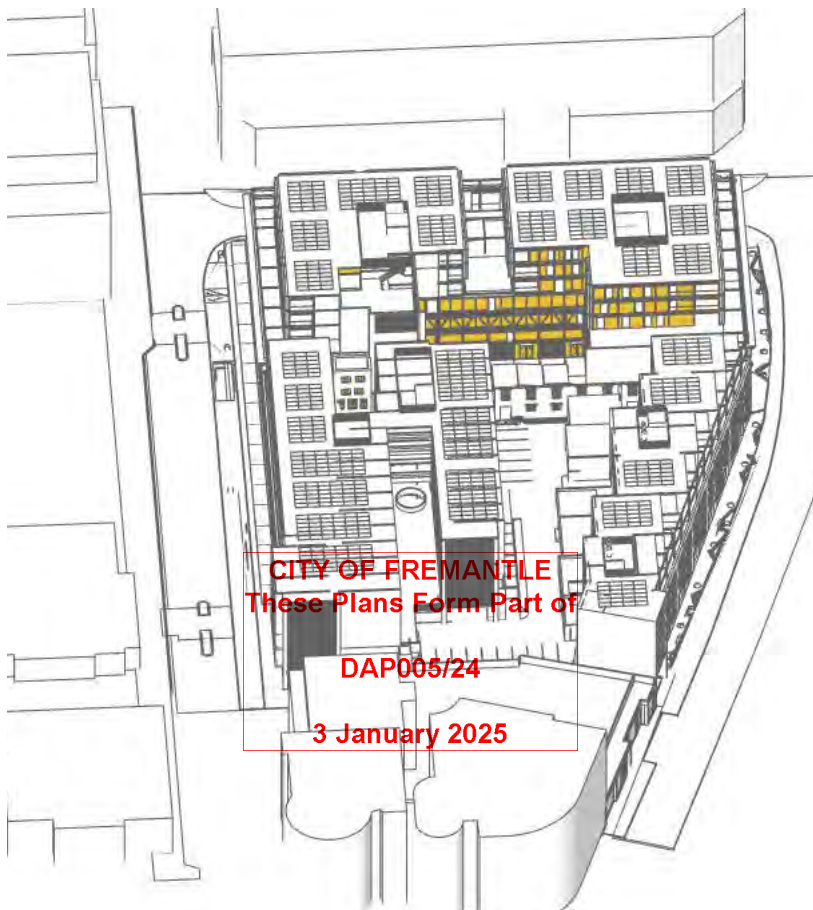
PROJECT NO	DRAWING NO	REVISION
2204	DA402	A



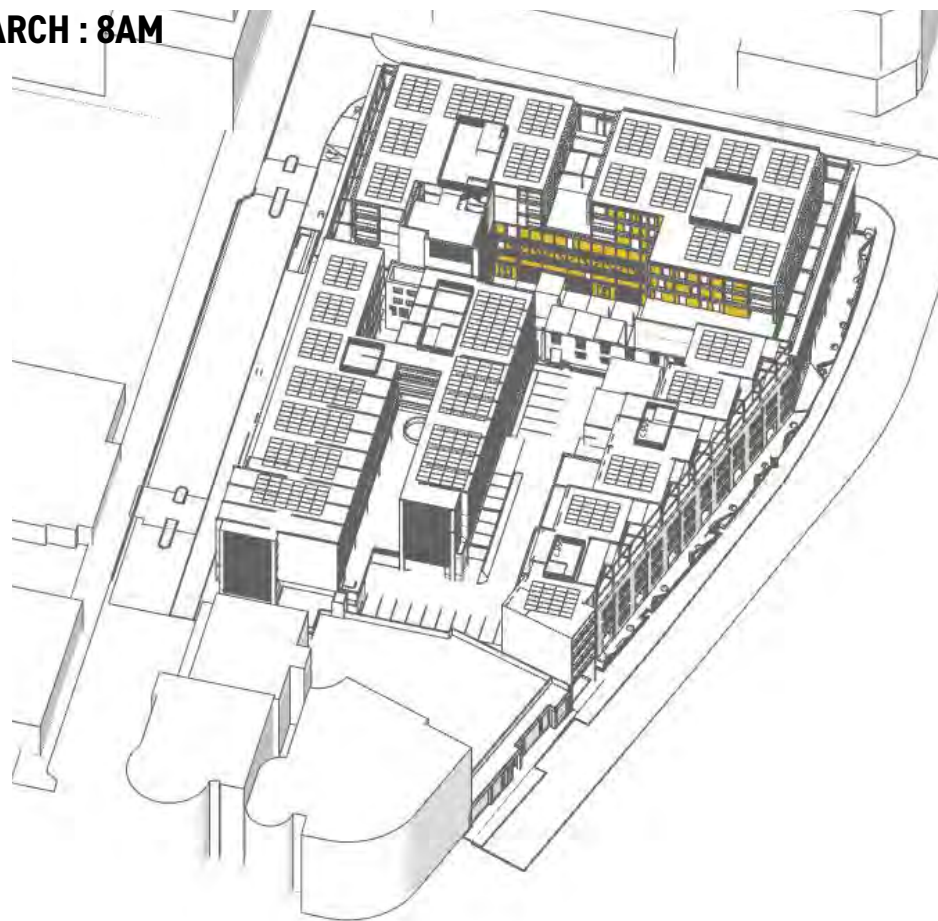
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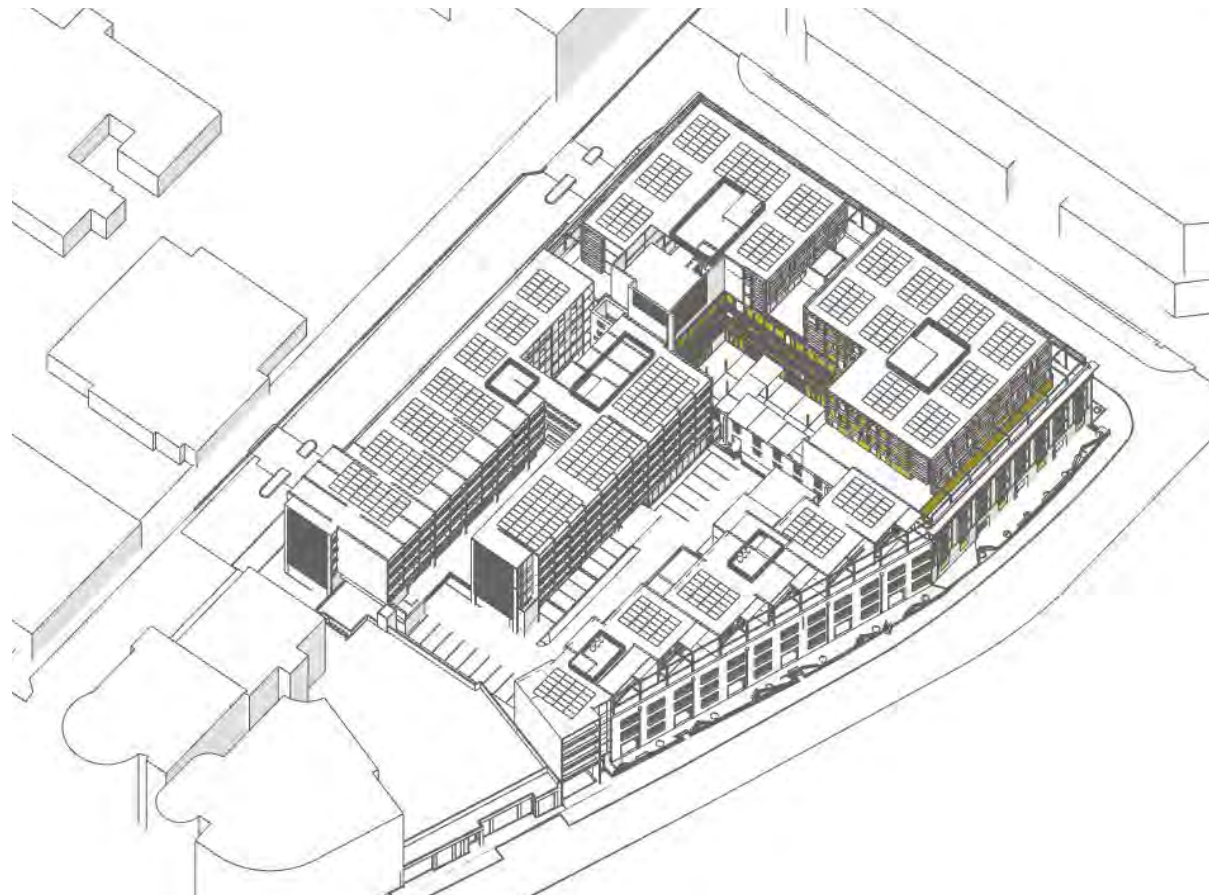
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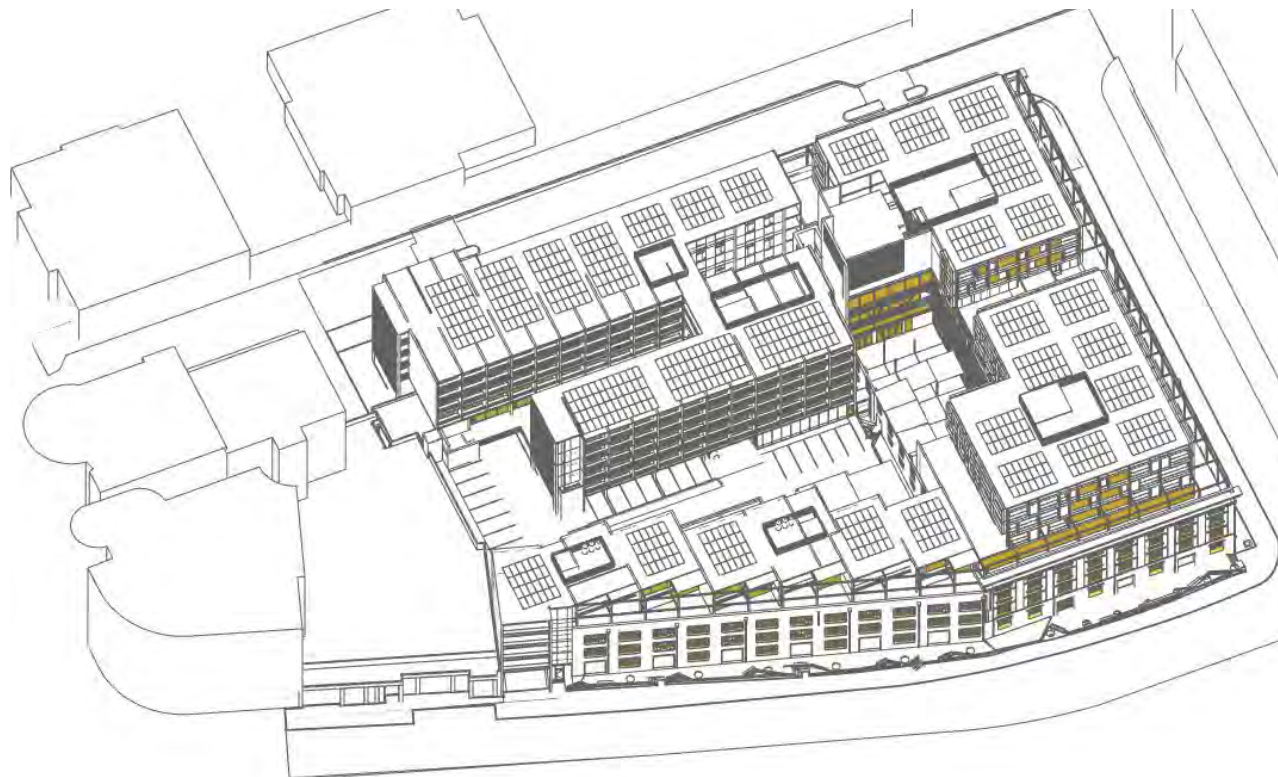
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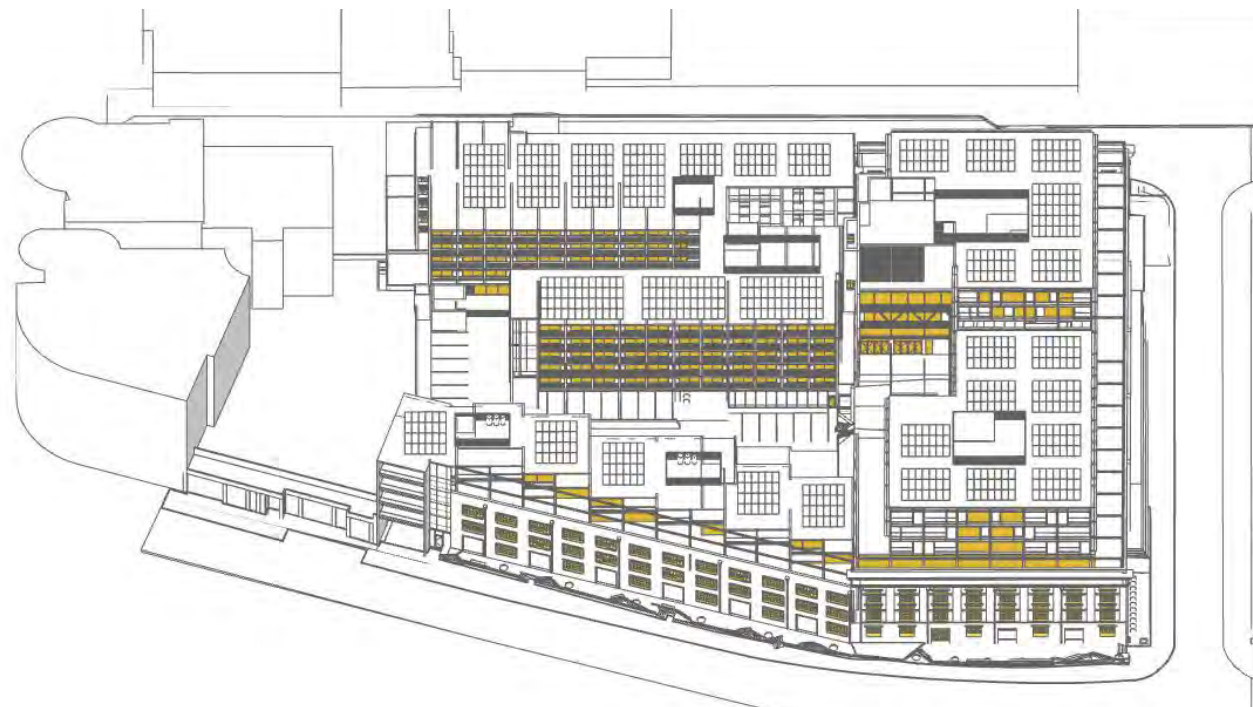
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21 MARCH : 12PM



21 MARCH : 1PM

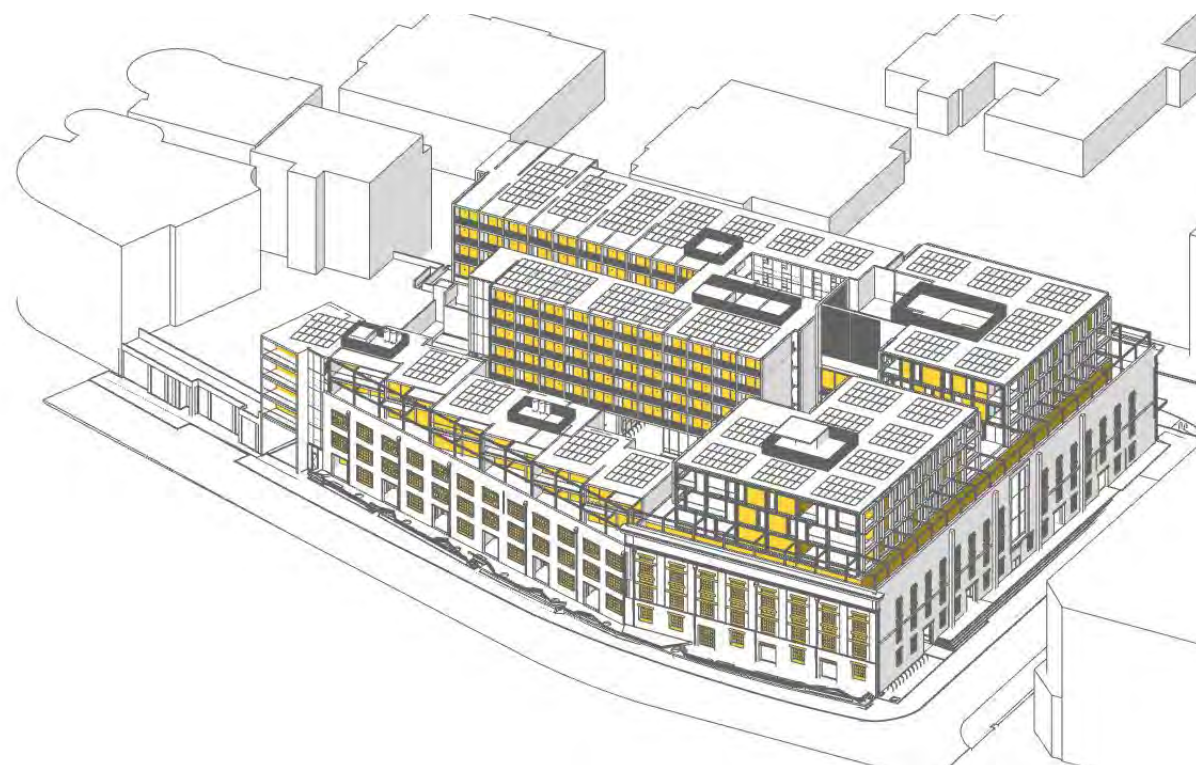


21 MARCH : 2PM

THIS DRAWING SHOWS THE SITE AS VIEWED FROM THE POSITION OF THE SUN



21 MARCH : 3PM



21 MARCH : 4PM

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PROJECT
WOOL STORES

48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
SUN STUDY - EQUINOX

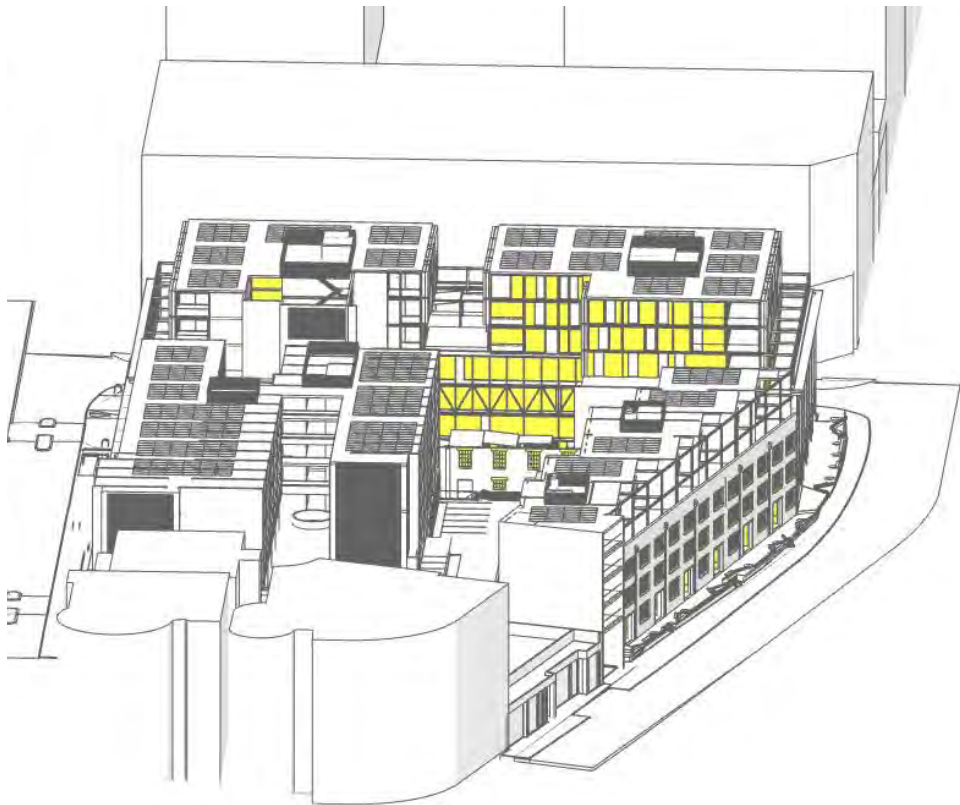
PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE @A1

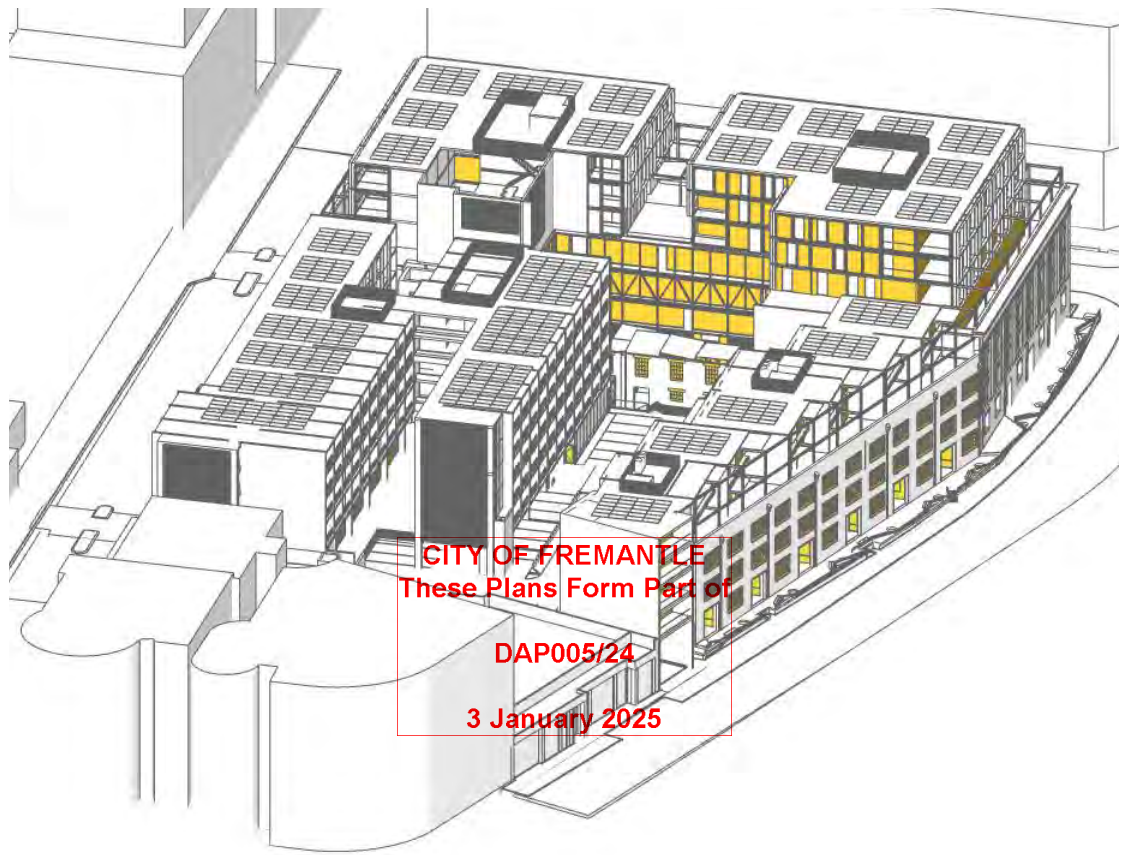
PROJECT NO	DRAWING NO	REVISION
2204	DA403	A



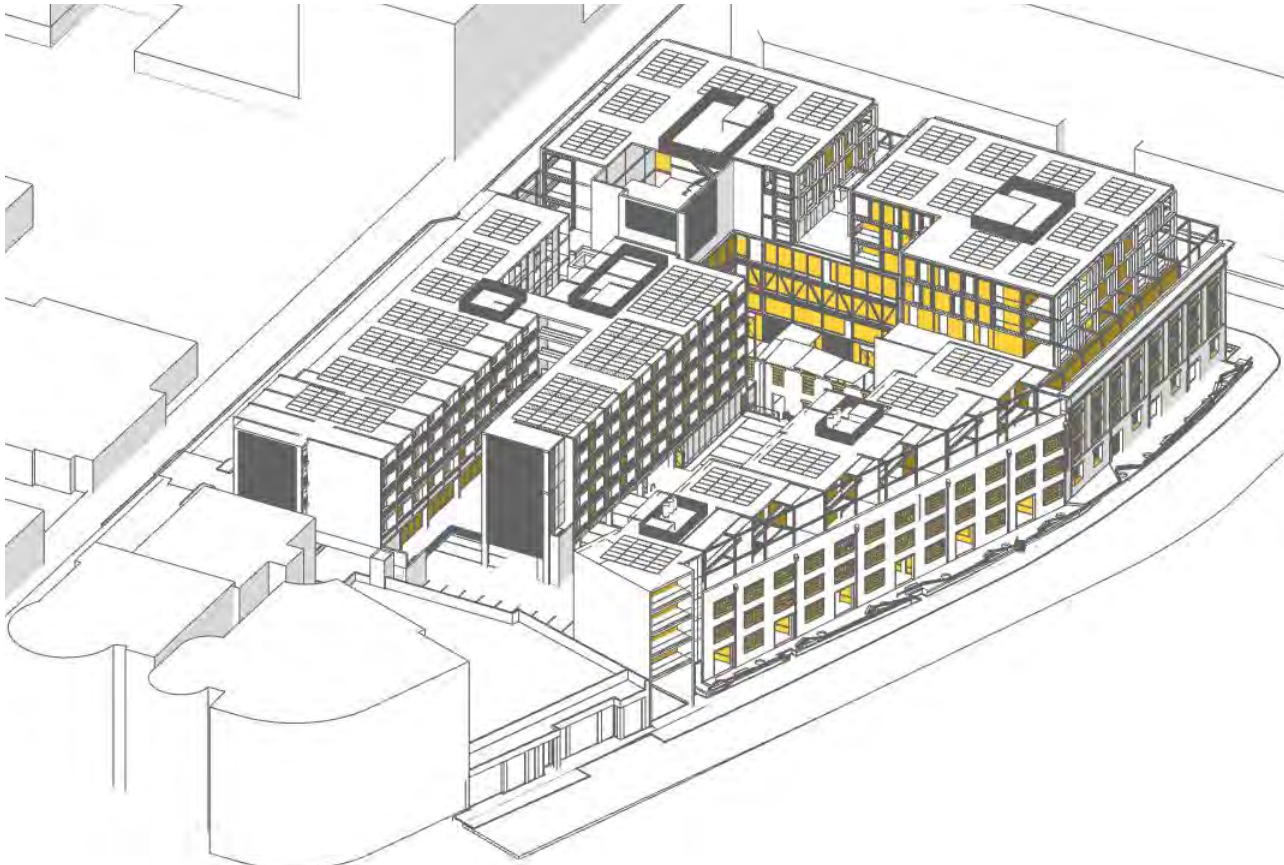
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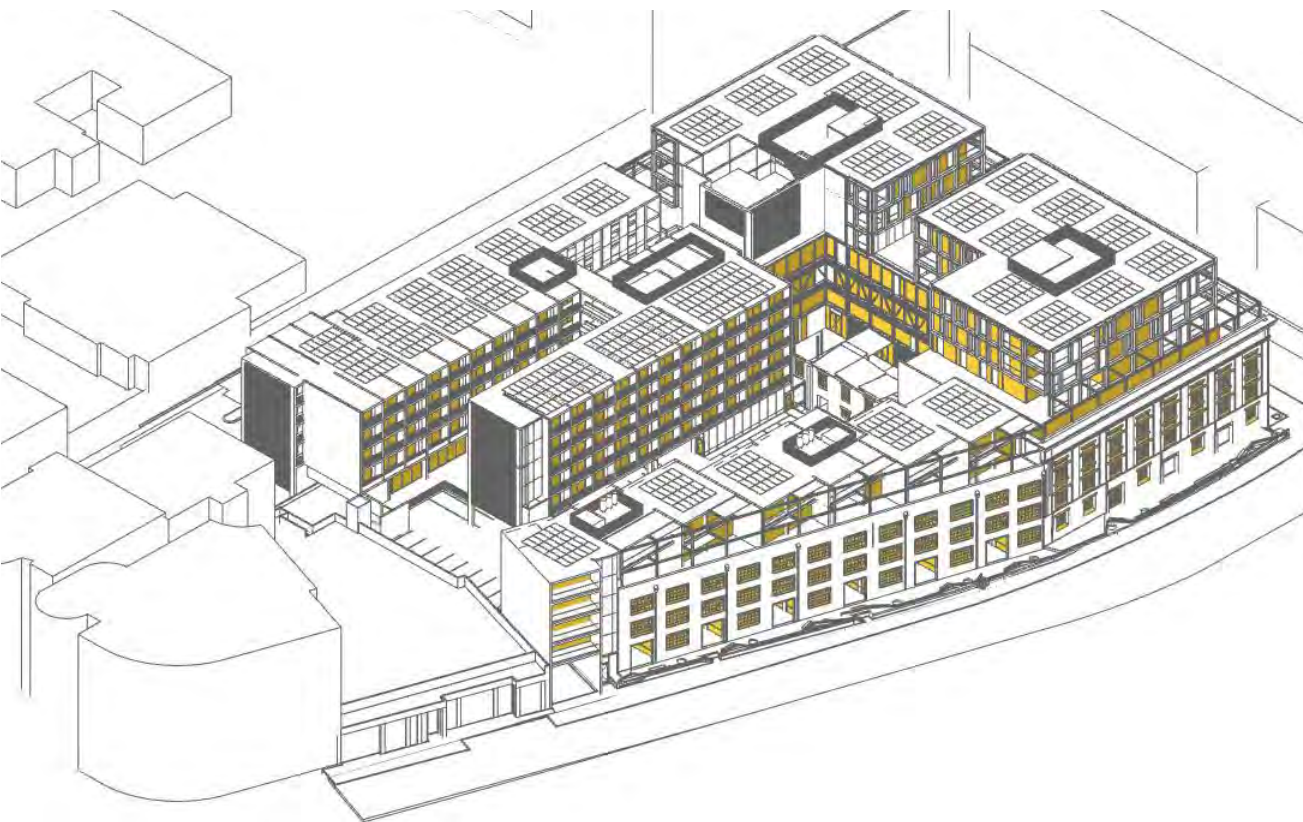
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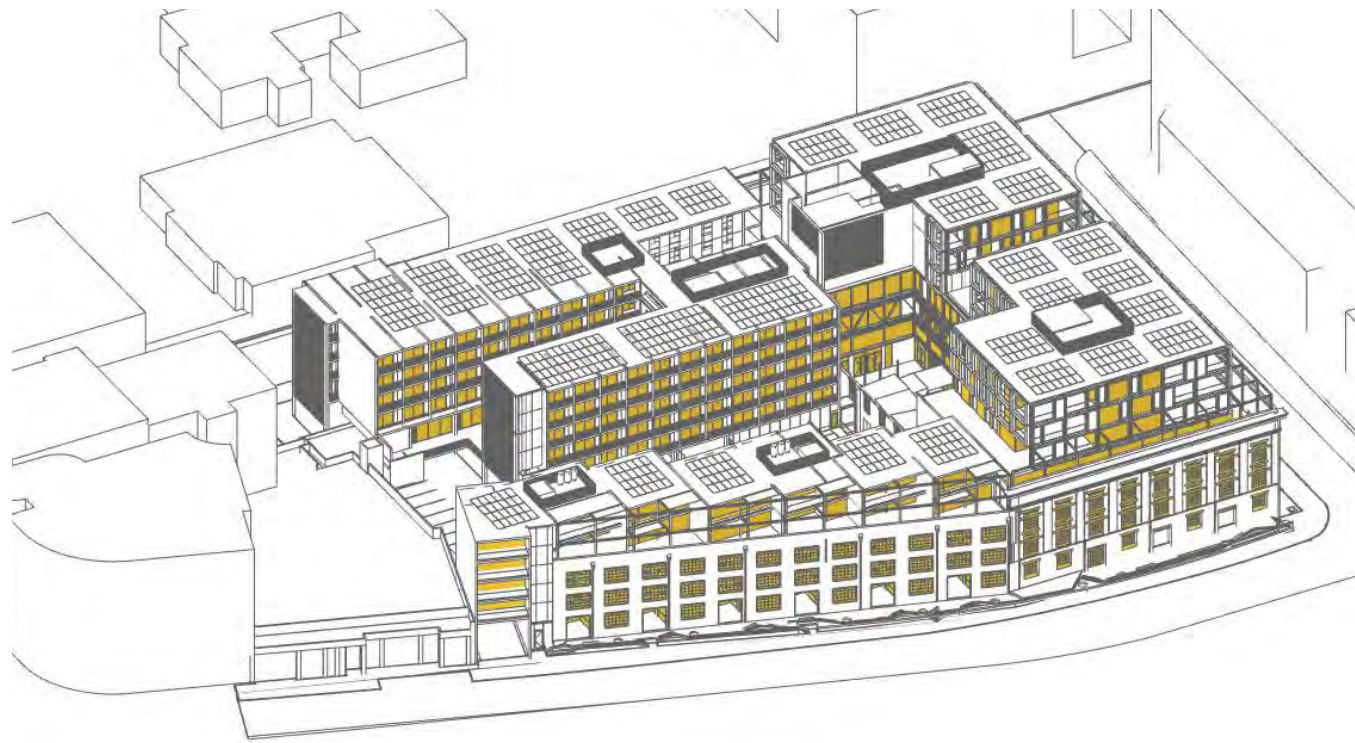
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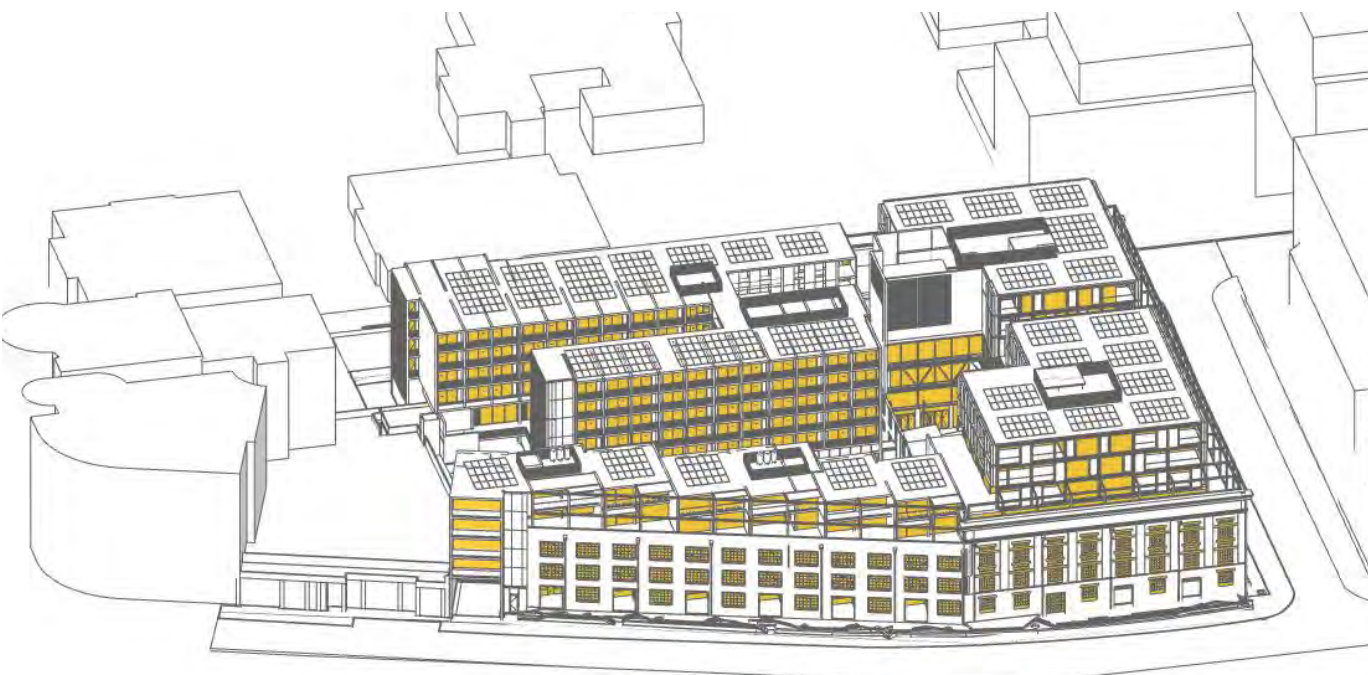
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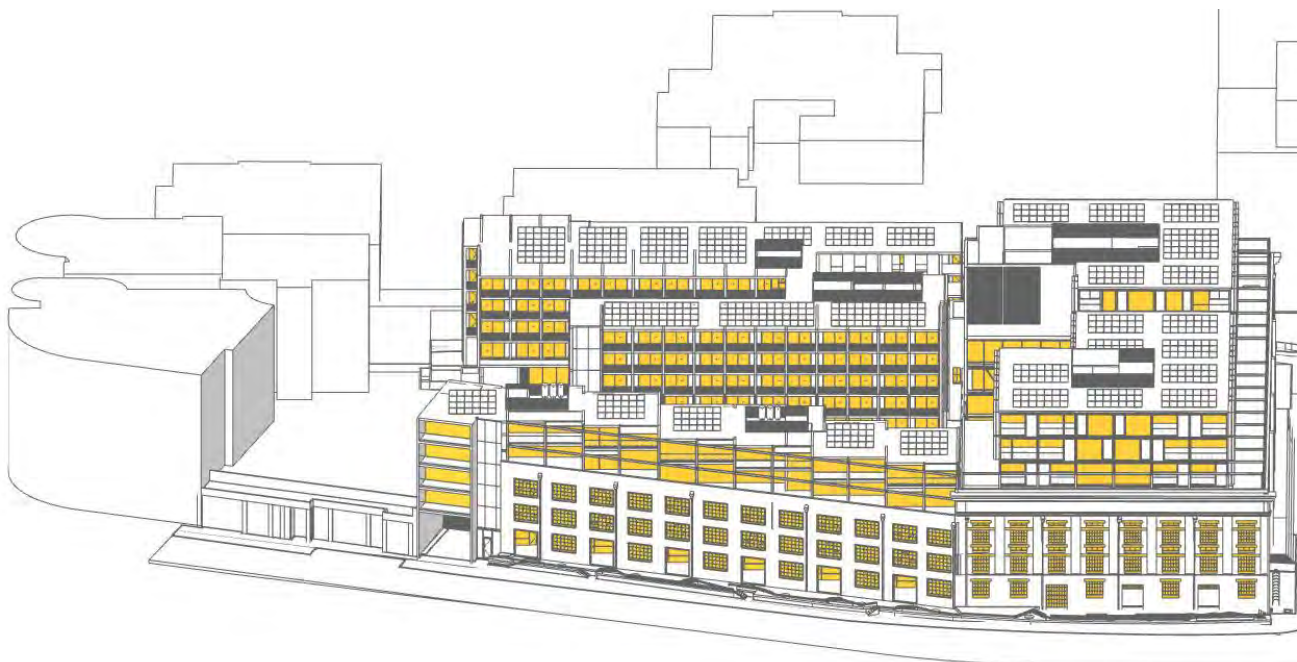
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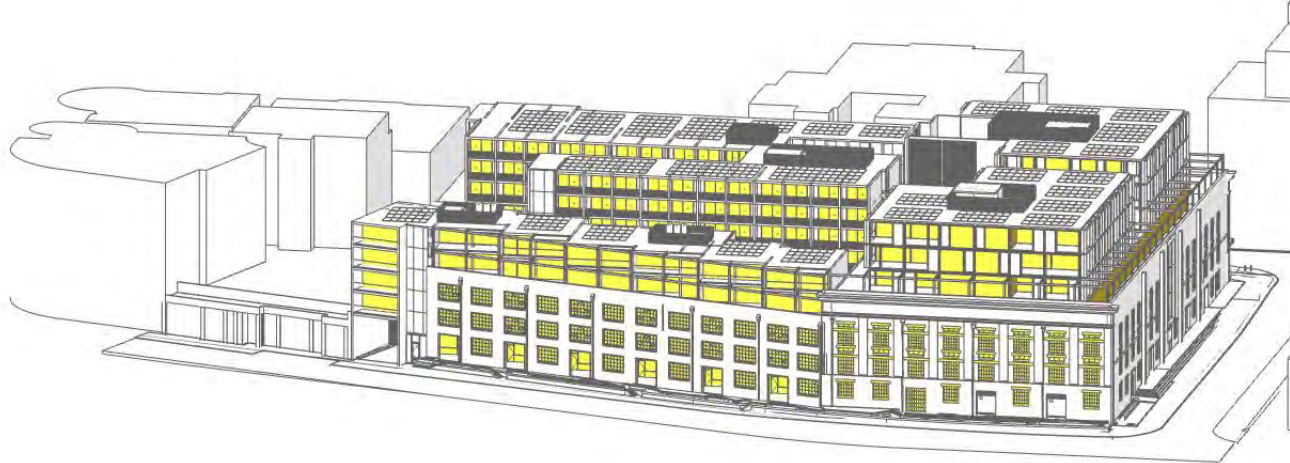
21 JUNE : 1PM



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21 JUNE : 3PM



21 JUNE : 4PM

THIS DRAWING SHOWS THE SITE AS VIEWED FROM THE POSITION OF THE SUN

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PROJECT
WOOL STORES

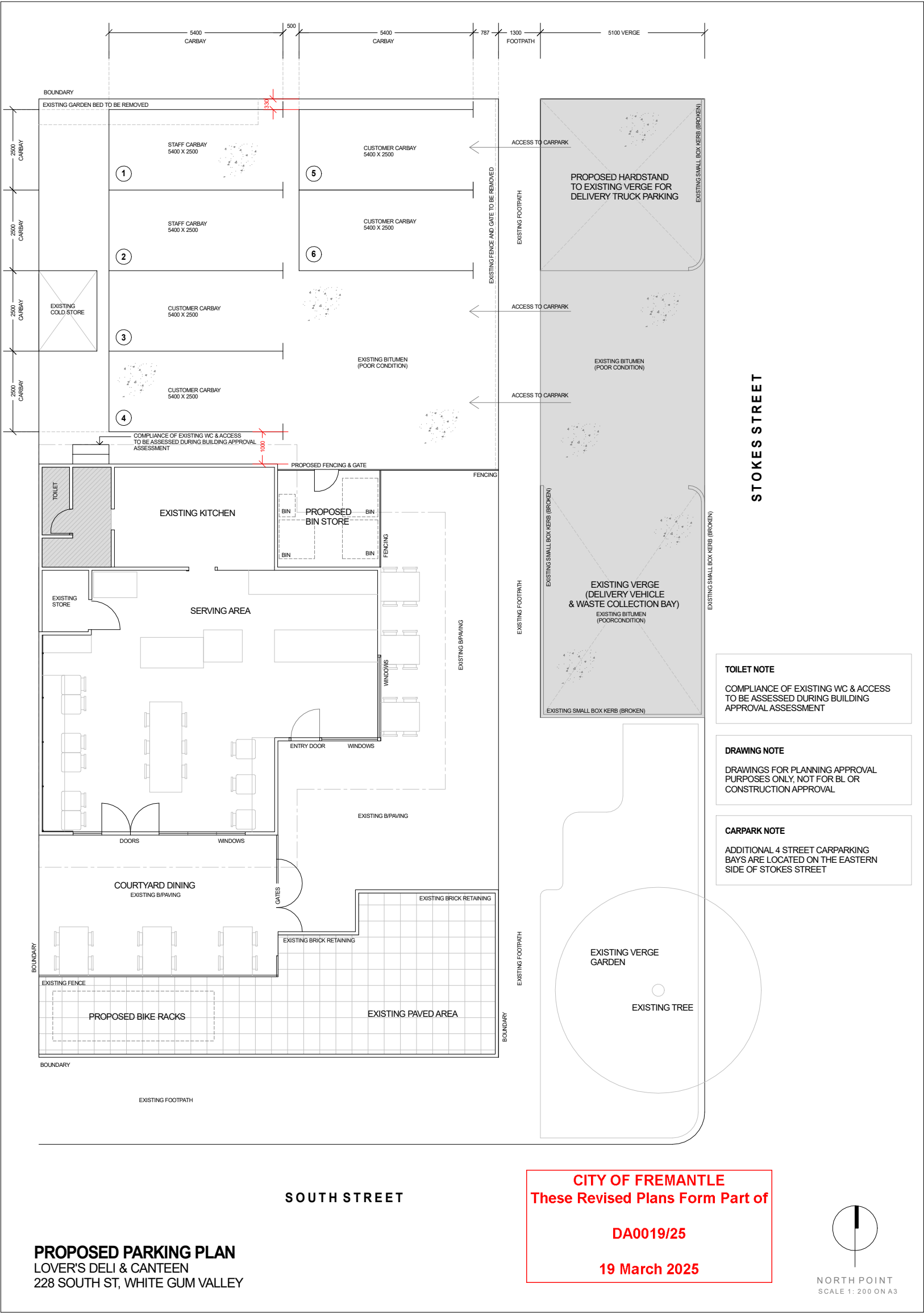
48 - 68 CANTONMENT STREET FREMANTLE

DRAWING
SUN STUDY - WINTER

PROJECT STATUS
DEVELOPMENT APPROVAL

SCALE @A1

PROJECT NO	DRAWING NO	REVISION
2204	DA404	A



WASTE COLLECTION PLAN

We have 3 bins supplied by Write Solutions – General, Recycling & Organic Waste.

These bins are stored on the perimeter of the carpark and emptied weekly before 6am –

- General and recycling - Wednesdays
- Organic - Thursdays.

Write solutions have access to our locks to enter the premises. The driver wheels the bins out the gate and they are then emptied into the truck.

After the driver returns the bins, they are then cleaned on site by staff weekly while empty (on collection days).

SIGNAGE

No extra signage has been added to the premises.

STRUCTURAL CHANGES

No structural changes have been or will be made to the premises.

TRADING DETAILS

Staffing –

Lovers Deli & Canteen employs 19 staff including four under 20yo from the local community.

Daily Staff levels – 6

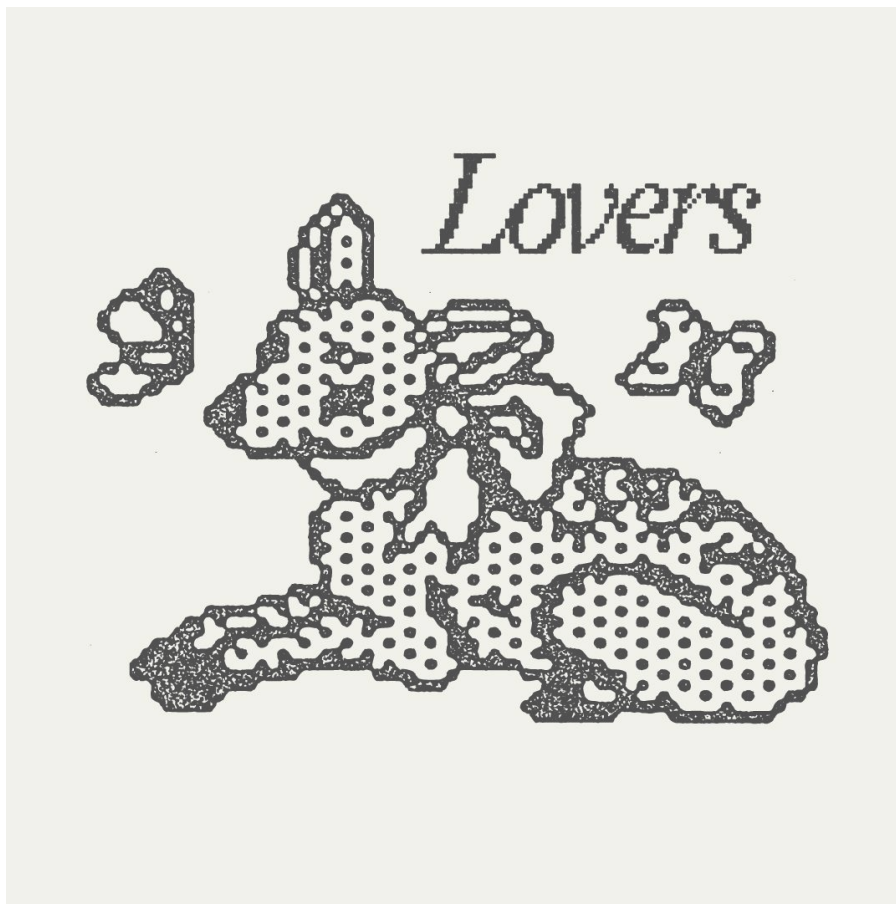
Opening hours – 7am to 3pm Monday to Sunday

Lovers Deli & Canteen is a café that aims to be a pillar of the community. We pride ourselves on outstanding, welcoming service and innovative food using ingredients from local producers. Lovers Deli & Canteen have further activated the precinct and created more local jobs in White Gum Valley. We aim to provide a space that brings the community together in a safe environment. We have already noticed a decline in anti social behaviour at the address since opening.

**CITY OF FREMANTLE
These Revised Plans Form Part of**

DA0019/25

19 March 2025



Lovers Deli & Canteen
at
228 South Street, White Gum Valley
Date: 13.03.25

1. Objective

Achieve a waste management program that is thoughtfully designed and effectively managed, focusing on organic food waste management, recycling collection, and actively promoting waste minimisation within the community.

2. Nature of Business

Lovers Deli & Canteen will operate as a casual café and deli, offering an inventive spin on deli classics and drinks. The café will focus on sustainable practices by using minimal packaging and offering locally sourced ingredients to reduce food waste. A small-scale food offering will be provided to reduce the amount of waste typically generated by larger on-site kitchens.

Operating hours:

7 days per week 7am-3pm.

3. Sustainability, Recycling, and Waste Minimisation

- All food scraps and organic waste will be separated into designated food waste bins for composting or organic recycling.
- Separate bins will be maintained for general waste and recyclable materials, in line with the City of Fremantle's commercial waste collection service.
- Any food scraps generated from patrons' meals will be separated from general waste and placed into a dedicated food waste bin for collection and composting.
- Lovers Deli & Canteen will actively participate in promoting recycling, partnering with local recycling companies.
- Suppliers will be encouraged to reduce or eliminate packaging waste, prioritising the use of reusable or eco-friendly packaging for deliveries.
- Single-use plastics, including straws and other items, will be avoided and paper alternatives used.
- All drinks, including coffee, will be served using reusable or compostable cups and containers.
- We are investigating how to redirect spent coffee grounds to local farms for composting or use as nutrient-rich soil amendments, instead of being sent to landfill.

4. Bin Storage

As per the attached plan, there is ample space available to contain the necessary bins for waste and recycling storage.

5. Number and Types of Bins

The production side of the business generates minimal waste, mainly consisting of organic food scraps and packaging. Based on our sustainable practices, the waste from the kitchen will be sorted and redirected as organic waste rather than general waste, as detailed in the 'Sustainability' section.

We estimate our waste generation as follows:

- **Café Area (7 days a week):** 500L per week

6. Bin Collection

Bins will be collected as per the outlined schedule in Local Planning Policy 2.24 (fremantle.wa.gov.au):

- **General Waste:** Weekly (Wednesday)
- **Recyclables:** Weekly (Wednesday)
- **Organic / Food Waste:** Weekly (Thursday)

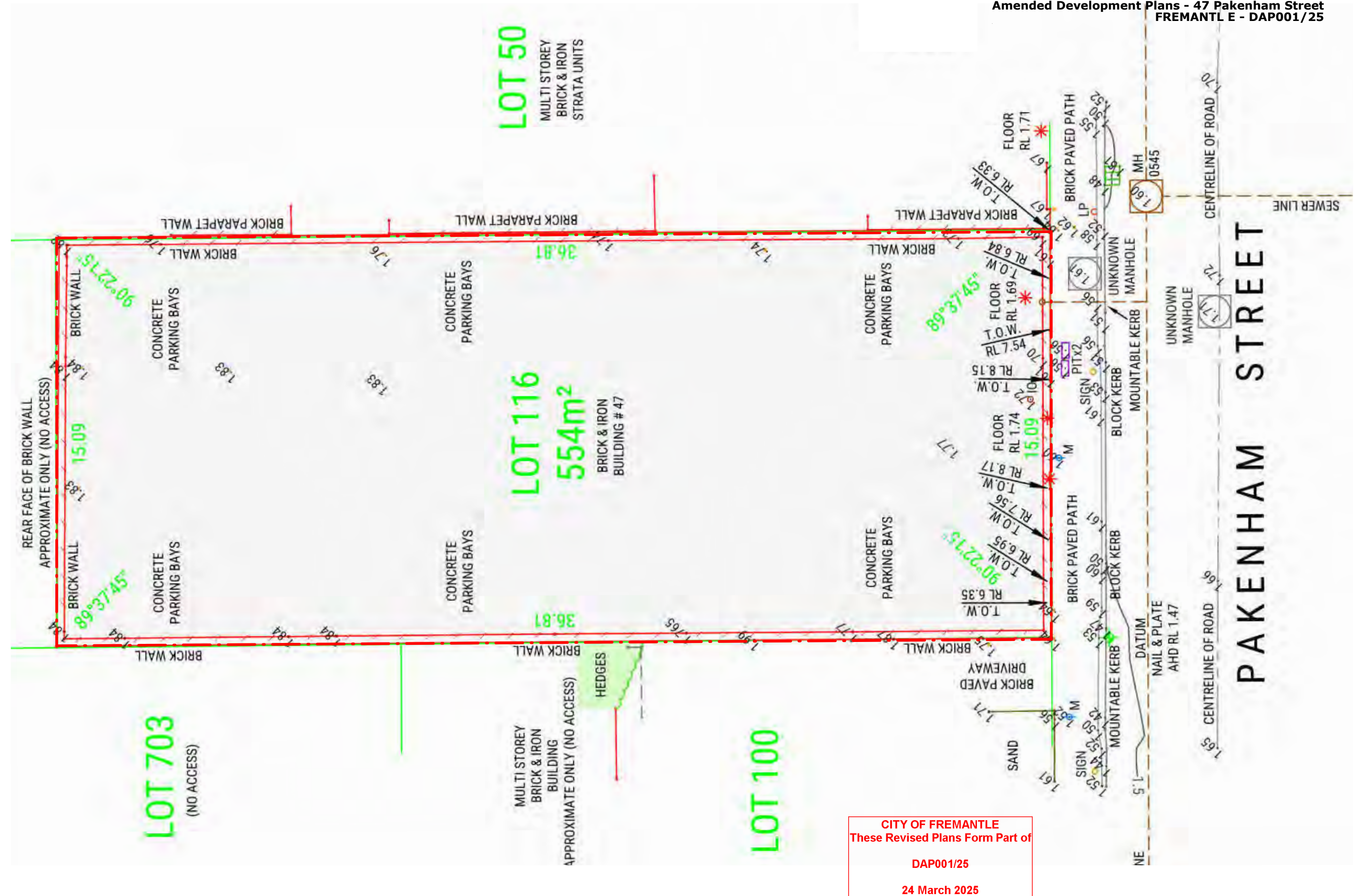
Collection will take place safely from the designated waste storage area during operating hours (Monday–Friday, 7am–3pm).

7. Bin Cleaning

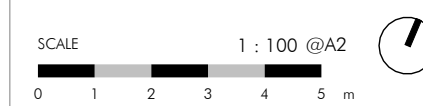
To avoid odours for neighbours and customers, all three bins are cleaned on site by staff after collection.



SERVICE LEGEND	
DRAINAGE	
COMBO PIT	
GRATE	
SIDE ENTRY PIT	
STORM WATER MANHOLE	
ELECTRICITY	
CABLE MANHOLE	
CABLE PIT / BOX	
CABLE DOME	
CONSUMER POLE	
LIGHT POLE	
POWER POLE	
STAY POLE	
STAY WIRE ANCHOR	
D/N POWER LINE	
GAS	
GAS MANHOLE	
GAS MARKER	
GAS METER	
GAS VALVE	
SEWERAGE	
SEWER MANHOLE	
PROPERTY CONNECTION	
SEWER LINE	
TELECOMMUNICATION	
TEL / COMMS MANHOLE	
TEL / COMMS MARKER	
TEL / COMMS PIT	
WATER	
FLUSH POINT	
HYDRANT	
STOP VALVE	
TAP	
WATER MARKER	
WATER METER	
WATER LINE	
SURVEY	
DATUM	
PEG FOUND	
OTHER	
AWNING / EAVES	
ROOF RIDGE	
FLOOR RL	
WINDOW	
BANK - BOTTOM	
BANK - TOP	



Pakenham Residences
47 Pakenham Street, Fremantle



DATE ISSUED
19.12.2024

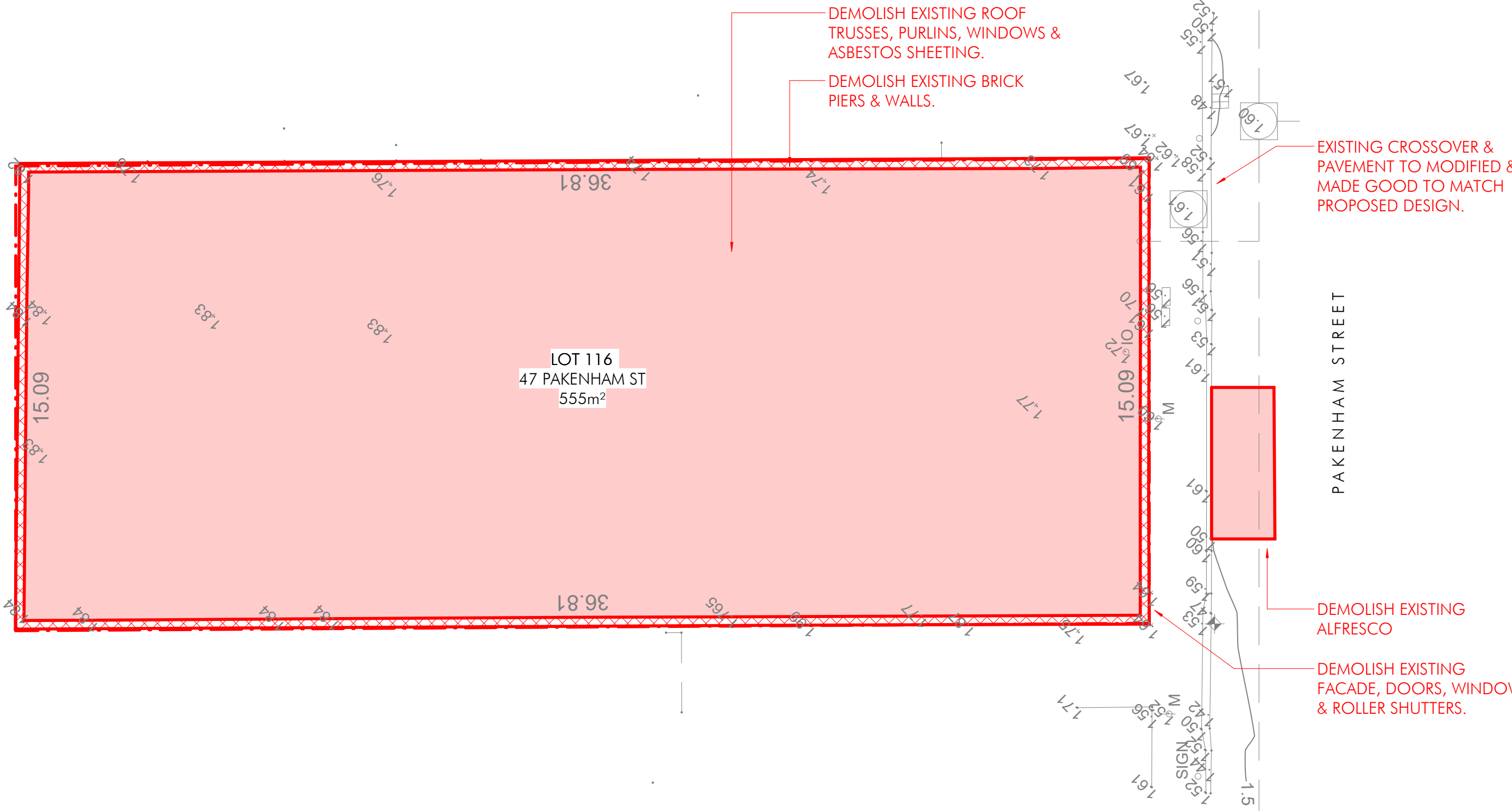
DRAWING NAME
SURVEY PLAN

PROJECT PHASE
DA

DRAWING No.
SD1-00

REV
D

GENERAL NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL, ENGINEERING, LANDSCAPE ARCHITECTURE AND SPECIALIST CONSULTANT DRAWINGS AND SPECIFICATIONS AND COORDINATED.
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4. ALL WORK SHALL COMPLY WITH THE NATIONAL CONSTRUCTION CODE (NCC), NATIONAL STANDARDS AND THE REQUIREMENTS OF STATE AND LOCAL AUTHORITIES.
5. ALL MATERIALS, FINISHES, FITTINGS AND BUILDING COMPONENTS SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ENVIRONMENTAL ASSESSMENT, REMEDIATION & MANAGEMENT PLAN FOR THE ASBESTOS-CONTAMINATED SITES IN WESTERN AUSTRALIA, & TO BE OBTAINED IN THE DEMOLITION MANAGEMENT PLAN PRIOR TO ANY DEMOLITION WORKS.



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24 March 2025



Pakenham Residences
47 Pakenham Street, Fremantle

SCALE 1 : 100 @A2
0 1 2 3 4 5 m



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DRAWING NAME
DEMOLITION PLAN
PROJECT PHASE
DA

DRAWING No.
SD1-01

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The site plan shows Lot 116, a rectangular plot of 554m², highlighted with a red dashed border and diagonal hatching. It is located at 47 Pakenham St. Surrounding lots include Lot 200 (43 Pakenham St, existing restaurant) to the north, Lot 50 (45 Pakenham St, existing apartment building) to the northwest, Lot 810 (52 Henry St, existing apartment building) to the west, Lot 703 (54 Henry St, existing apartment building) to the southwest, Lot 100 (49 Pakenham St, existing residential building) to the south, and Lot 441 (56 Pakenham St, existing residential building) to the northeast. The plan also shows Lot 200 (1 Nairn St, existing residential building) to the east. Streets shown include Pakenham St, Nairn Street, and Henry St. A sewer line and existing driveway are also indicated.

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SCALE 1 : 200 @A2



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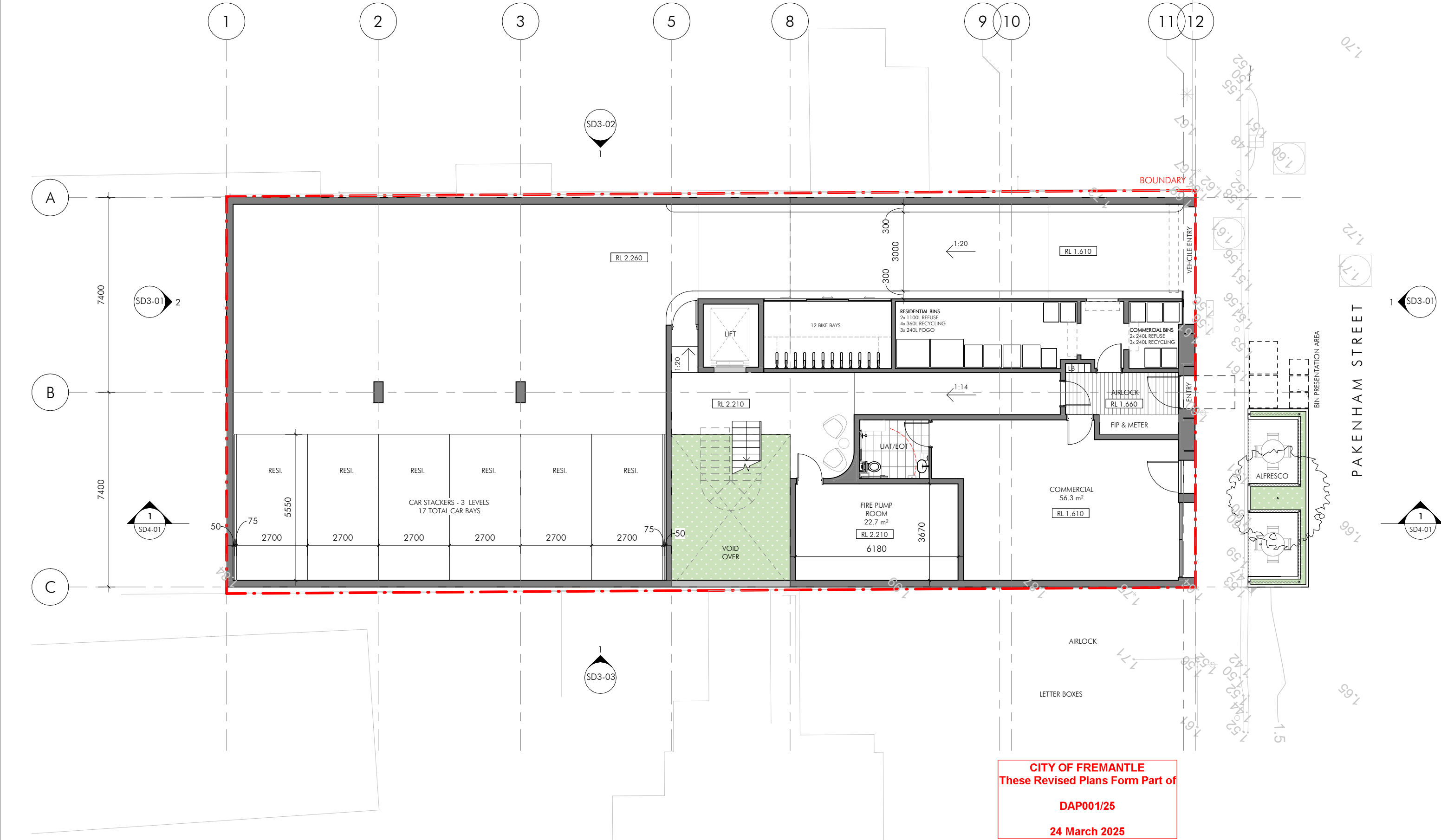
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19.12.2024

DRAWING NAME
SITE PLAN
PROJECT PHASE
DA

DRAWING No.

SD1-02

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Pakenham Residences
47 Pakenham Street, Fremantle

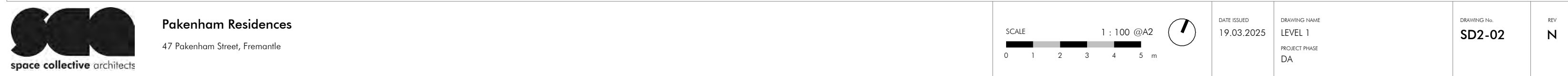
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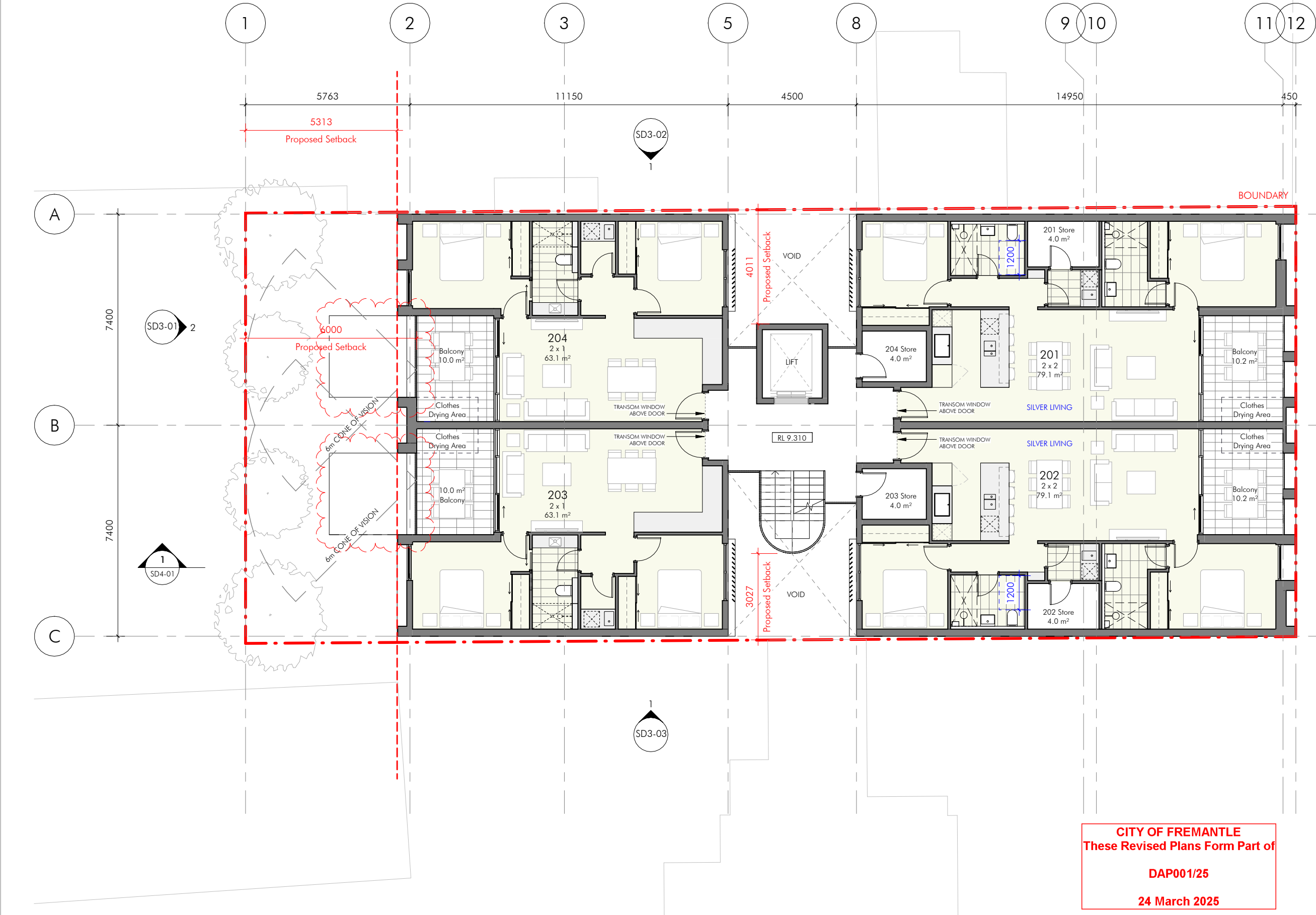
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10.03.2025

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GROUND FLOOR
PROJECT PHASE
DA

DRAWING No.
SD2-01

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24 March 2025

Apartment Schedule			
Unit Number	Level	Layout	Internal Area
101	Level 1	2 x 2	79.1 m ²
102	Level 1	2 x 2	79.1 m ²
103	Level 1	2 x 1	76.3 m ²
104	Level 1	2 x 1	76.3 m ²
201	Level 2	2 x 2	79.1 m ²
202	Level 2	2 x 2	79.1 m ²
203	Level 2	2 x 1	63.1 m ²
204	Level 2	2 x 1	63.1 m ²
301	Level 3	3 x 2	88.0 m ²
302	<varies>	1 x 1	64.9 m ²
303	Level 3	3 x 2	87.2 m ²
401	Level 4	3 x 2	88.0 m ²
402	Level 4	3 x 2	92.3 m ²
			1,015.6 m ²



Pakenham Residences
47 Pakenham Street, Fremantle

SCALE 1 : 100 @A2
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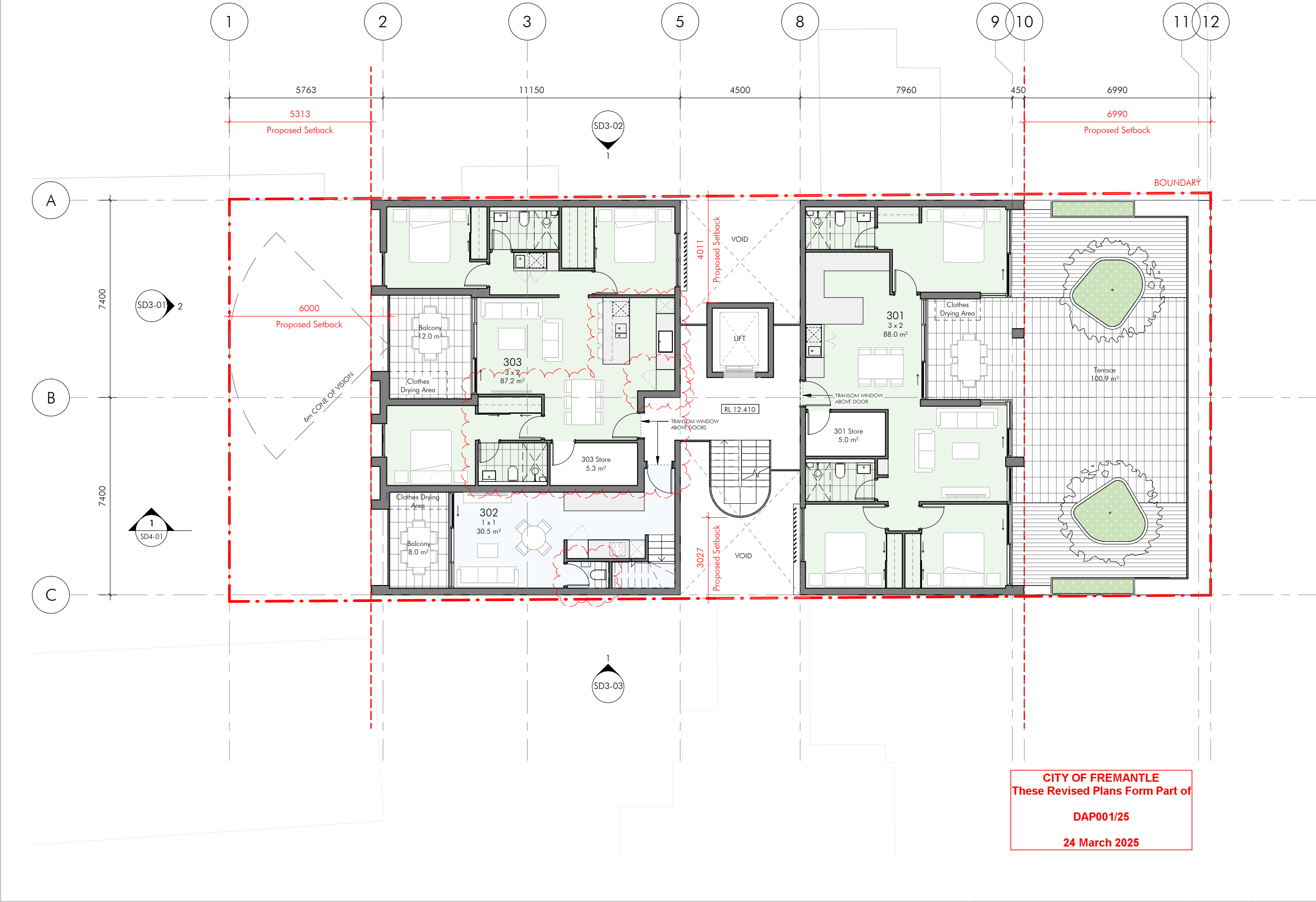


DATE ISSUED
19.03.2025

DRAWING NAME
LEVEL 2
PROJECT PHASE
DA

DRAWING No.
SD2-03

REV
N



Apartment Schedule			
Unit Number	Level	Layout	Internal Area
101	Level 1	2 x 2	79.1 m²
102	Level 1	2 x 2	79.1 m²
103	Level 1	2 x 1	76.3 m²
104	Level 1	2 x 1	76.3 m²
201	Level 2	2 x 2	79.1 m²
202	Level 2	2 x 2	79.1 m²
203	Level 2	2 x 1	63.1 m²
204	Level 2	2 x 1	63.1 m²
301	Level 3	3 x 2	88.0 m²
302	<varies>	1 x 1	64.9 m²
303	Level 3	3 x 2	87.2 m²
401	Level 4	3 x 2	88.0 m²
402	Level 4	3 x 2	92.3 m²
			1,015.6 m²



Pakenham Residences
47 Pakenham Street, Fremantle

SCALE 1 : 100 @A2
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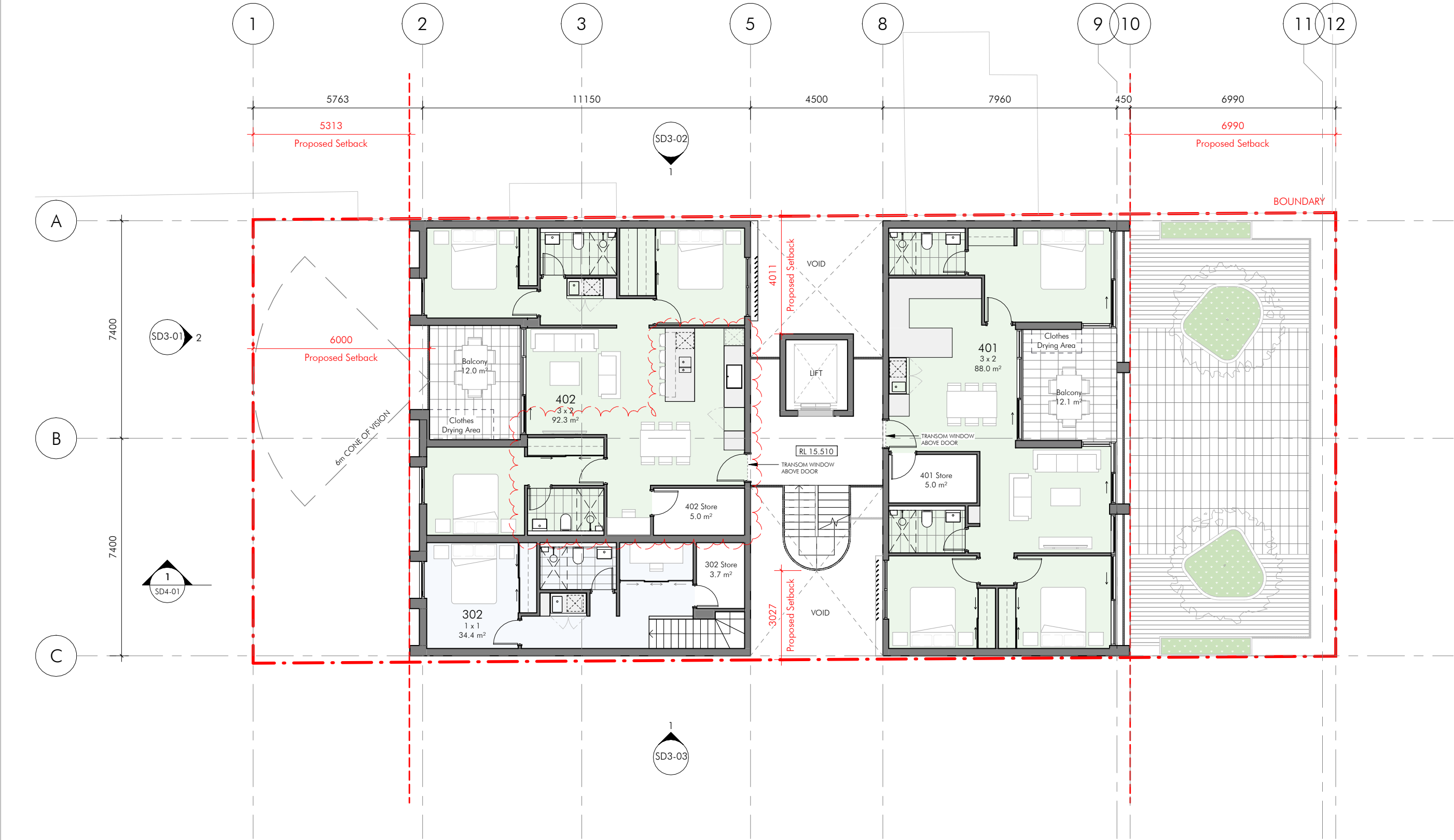


DATE ISSUED
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DRAWING NAME
LEVEL 3
PROJECT PHASE
DA

DRAWING No.
SD2-04

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P



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Apartment Schedule			
Unit Number	Level	Layout	Internal Area
101	Level 1	2 x 2	79.1 m ²
102	Level 1	2 x 2	79.1 m ²
103	Level 1	2 x 1	76.3 m ²
104	Level 1	2 x 1	76.3 m ²
201	Level 2	2 x 2	79.1 m ²
202	Level 2	2 x 2	79.1 m ²
203	Level 2	2 x 1	63.1 m ²
204	Level 2	2 x 1	63.1 m ²
301	Level 3	3 x 2	88.0 m ²
302	<varies>	1 x 1	64.9 m ²
303	Level 3	3 x 2	87.2 m ²
401	Level 4	3 x 2	88.0 m ²
402	Level 4	3 x 2	92.3 m ²
			1,015.6 m ²



Pakenham Residences
47 Pakenham Street, Fremantle

SCALE 1 : 100 @A2
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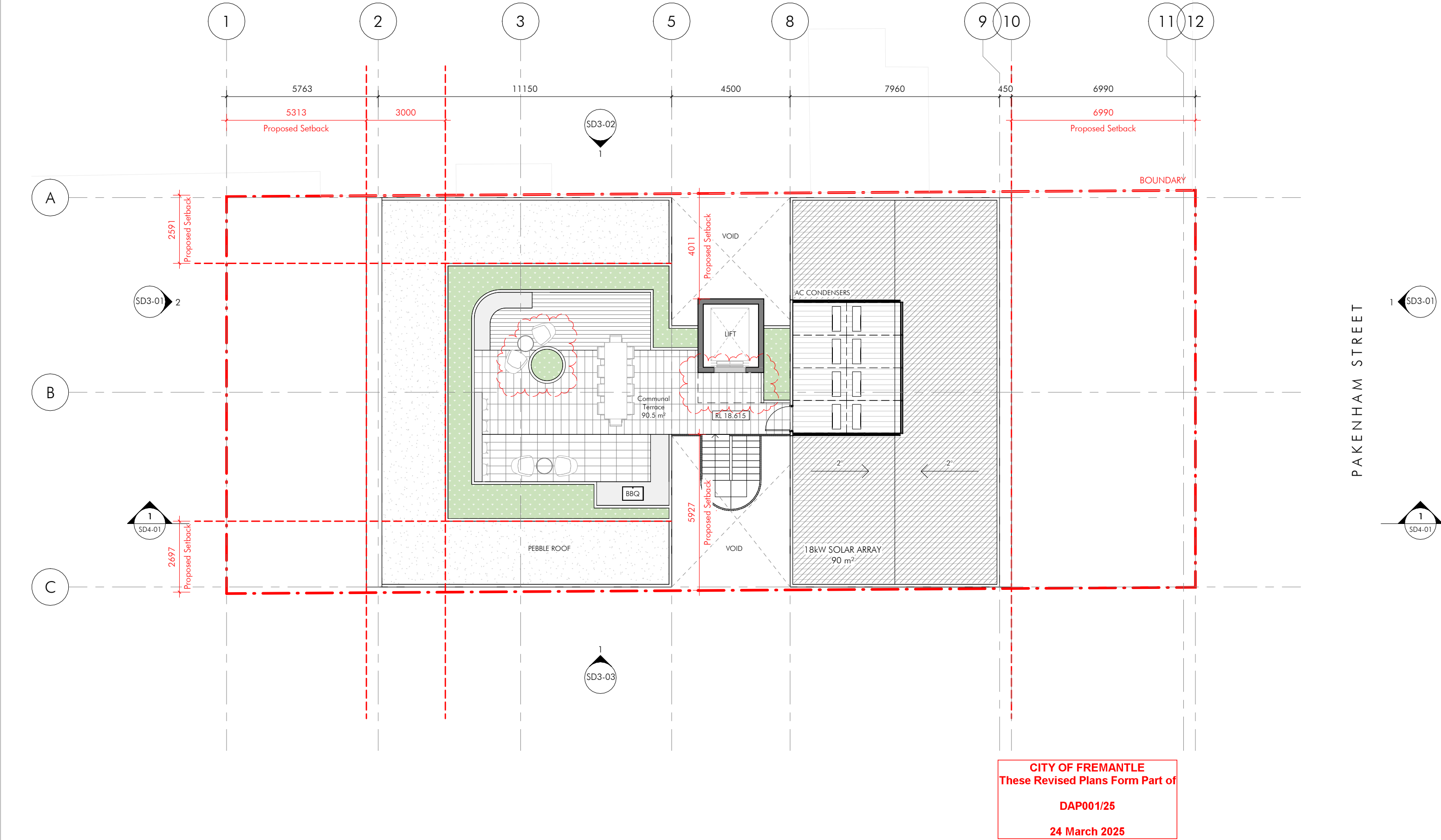


DATE ISSUED
19.03.2025

DRAWING NAME
LEVEL 4
PROJECT PHASE
DA

DRAWING No.
SD2-05

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Pakenham Residences
47 Pakenham Street, Fremantle

SCALE 1 : 100 @A2
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DATE ISSUED
19.03.2025

DRAWING NAME
ROOF
PROJECT PHASE
DA

DRAWING No.
SD2-06

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Pakenham Residences
47 Pakenham Street, Fremantle

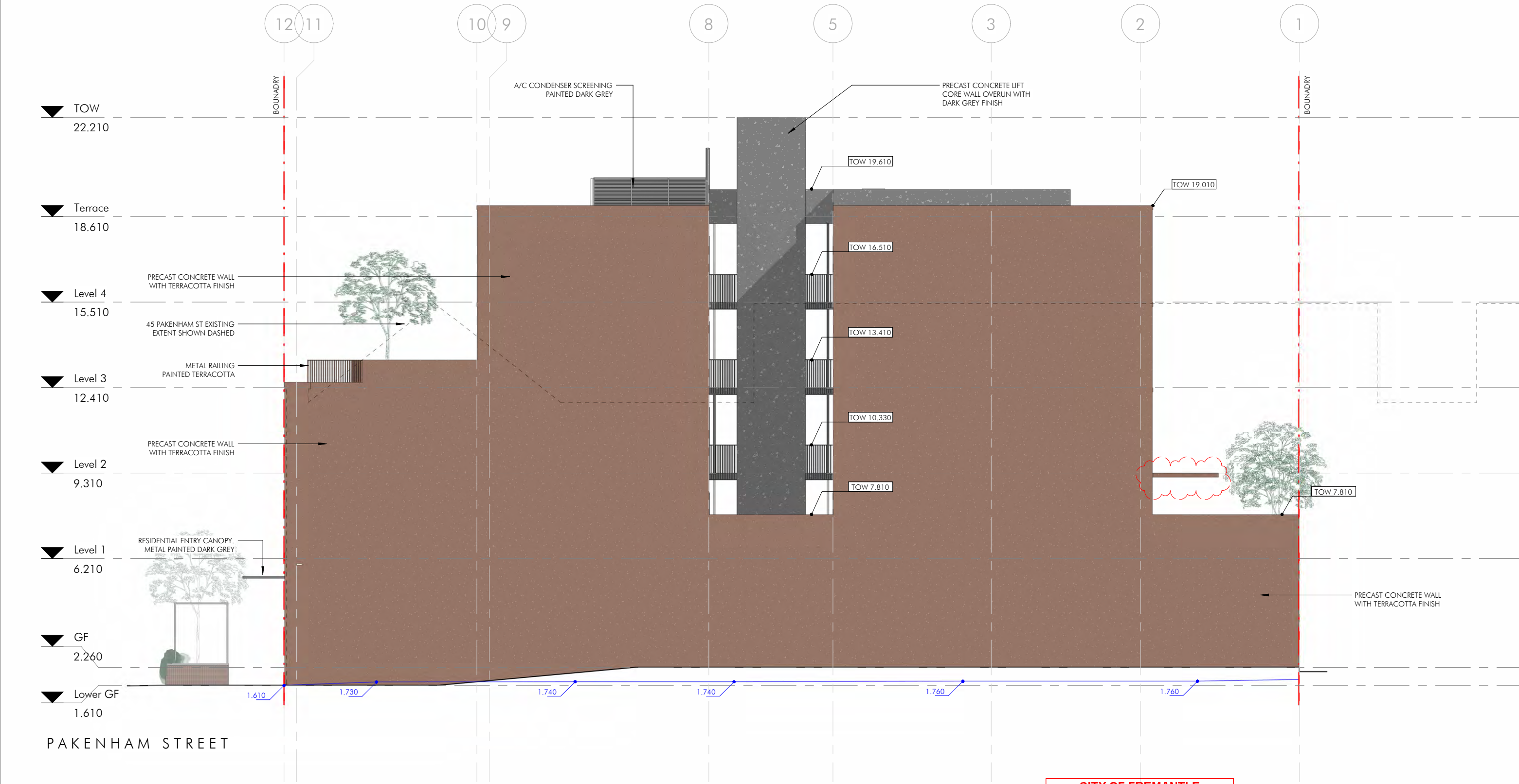
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19.03.2025

DRAWING NAME
ELEVATIONS - EAST & WEST
PROJECT PHASE
DA

DRAWING No.
SD3-01

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Pakenham Residences
47 Pakenham Street, Fremantle

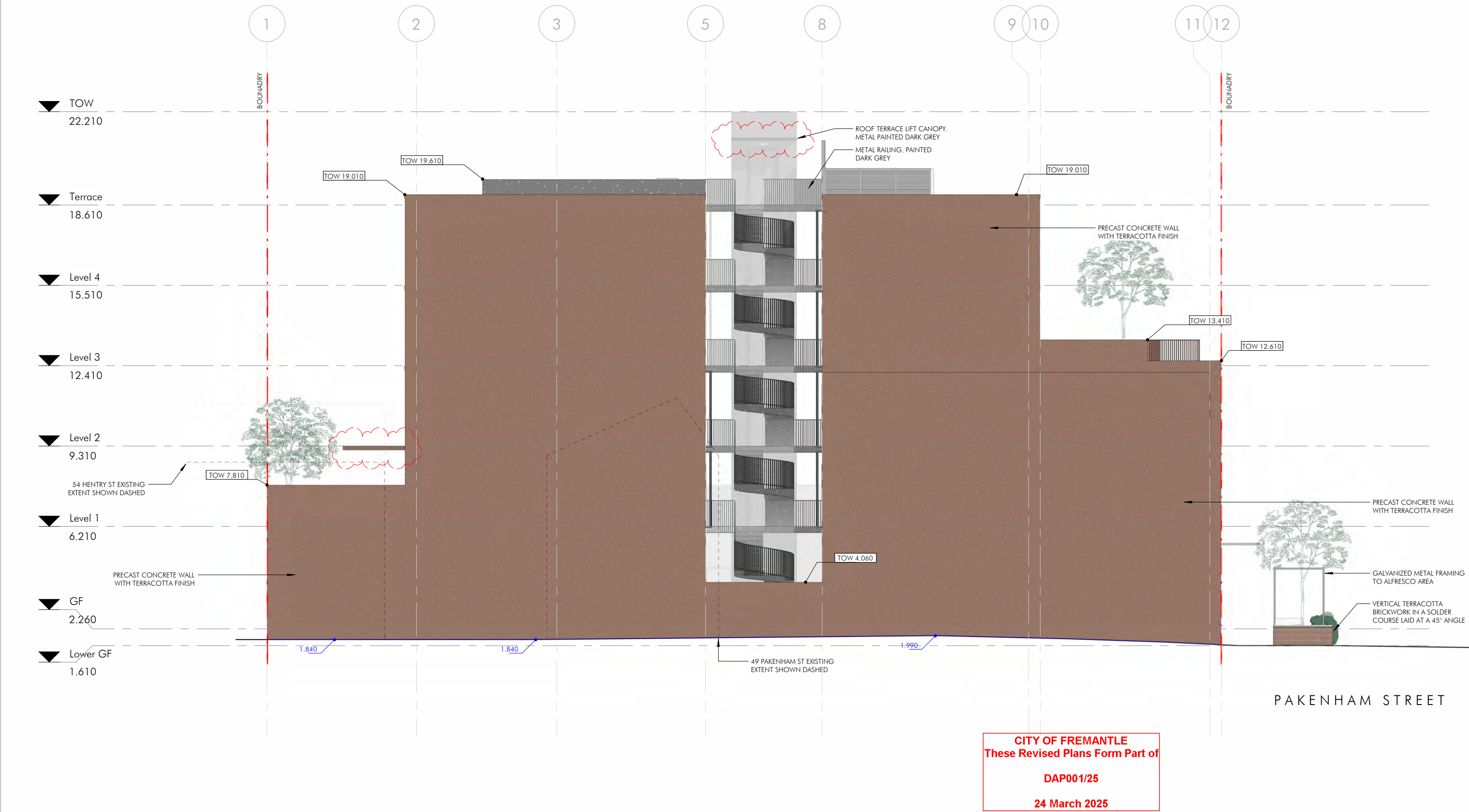
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DATE ISSUED
19.03.2025

DRAWING NAME
ELEVATION - NORTH
PROJECT PHASE
DA

DRAWING No.
SD3-02

REV
E



Pakenham Residences
47 Pakenham Street, Fremantle

SCALE
0 1 2 3 4 5 m
1 : 100 @A2

DATE ISSUED
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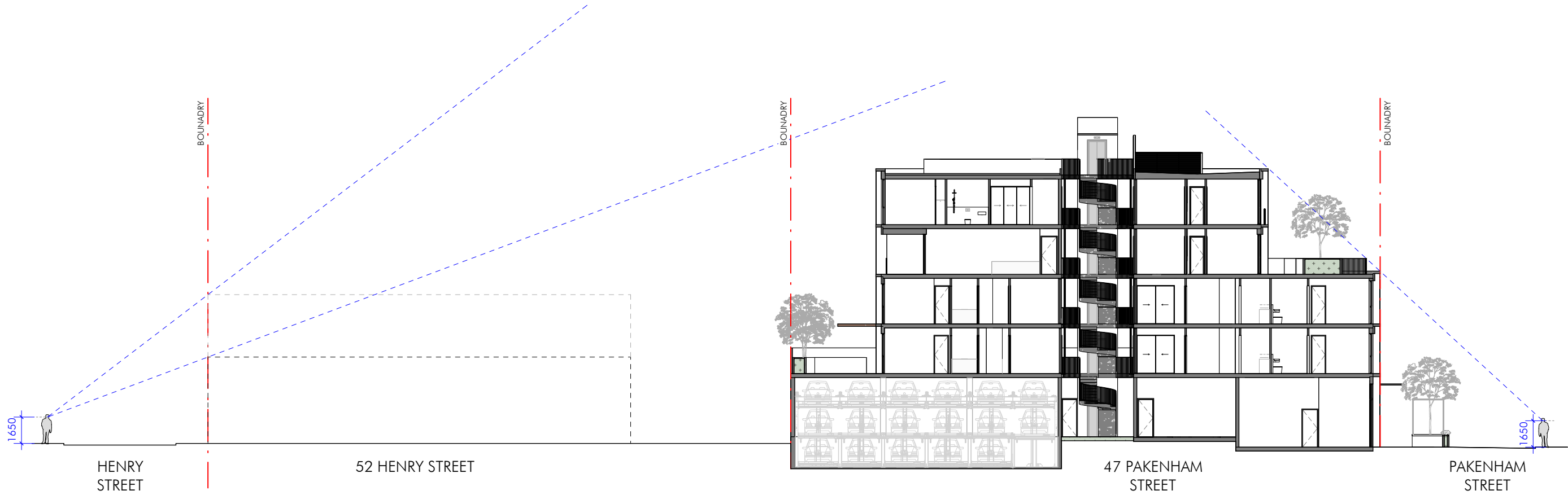
DRAWING NAME
ELEVATION - SOUTH
PROJECT PHASE
DA

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SD3-03

REV
E



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3. USE PLANNED DIMENSIONS ONLY DO NOT SCALE.
4. ALL DIMENSIONS FOR DRAWINGS SHALL BE CHECKED BY THE BUILDER.
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6. ALL WORK SHALL COMPLY WITH THE NATIONAL CONSTRUCTION CODE
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LOCAL AUTHORITIES.
7. ALL MATERIALS, FINISHES, FITTINGS AND BUILDING COMPONENTS
SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURERS
SPECIFICATIONS AND RECOMMENDATIONS.



Pakenham Residences
47 Pakenham Street, Fremantle

SCALE 1 : 200 @A2
0 1 2 3 4 5 m

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DRAWING NAME
SITE SECTION
PROJECT PHASE
DA

DRAWING No.
SD4-02

REV
A

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3. ALL DIMENSIONS SHOWN ON THIS DRAWING SHALL BE CHECKED BY THE BUILDER
4. PRIOR TO COMMENCEMENT OF CONSTRUCTION, PROCEEDING WITH
PROVISION OF PROPOSALS OR PLANS OF CONSTRUCTION, NOTIFY THE
5. THE CITY OF FREMANTLE FOR THE CITY OF FREMANTLE
6. ALL WORK SHALL COMPLY WITH THE NATIONAL CONSTRUCTION CODE
7. ALL MATERIALS, FINISHES, FITTINGS AND BUILDING COMPONENTS
8. SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURER'S
9. SPECIFICATIONS AND RECOMMENDATIONS.



Pakenham Residences
47 Pakenham Street, Fremantle

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SCALE
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DRAWING NAME
PERSPECTIVES
PROJECT PHASE
DA

DRAWING No.
SD5-01

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Q

Environmental Noise Assessment

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SPACE COLLECTIVE ARCHITECTS

**47 PAKENHAM STREET
FREMANTLE**

**DEVELOPMENT APPLICATION
ACOUSTIC REPORT**

DECEMBER 2024

OUR REFERENCE: 33943-2-24478

Rochdale Holdings Pty Ltd A.B.N. 85 009 049 067 trading as:
HERRING STORER ACOUSTICS
P.O. Box 219, Como, W.A. 6952
(08) 9367 6200
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Herring Storer Acoustics

DOCUMENT CONTROL PAGE

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DA ACOUSTIC REPORT
47 PAKENHAM STREET
FREMANTLE

Job No: 24478

Document Reference : 33943-2-24478

FOR

SPACE COLLECTIVE ARCHITECTS

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Date of Issue :	20 December 2024			
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APPENDICIES

A	DA Plans
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1.0 INTRODUCTION

Herring Storer Acoustics was commissioned through Space Collective Architects, to conduct a preliminary review of the proposed development to be located at 47 Pakenham Street, Fremantle.

The proposed development consists of a ground floor car parking and commercial tenancy, four floors of apartments and a communal roof terrace.

This report has been based on the Development Application drawings provided.

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2.0 CRITERIA

2.1 BCA PROVISIONS

For Class 2 or 3 buildings, Part F5 of the National Construction Code (NCC), outlines the minimum acoustic isolation of apartments.

The following summarises the acoustic criteria:

2.1.1 Walls

Wet to wet	$R_W + C_{tr}$ not less than 50 dB.
Living to living	$R_W + C_{tr}$ not less than 50 dB.
Wet to living	$R_W + C_{tr}$ not less than 50 dB plus discontinuous construction.
Kitchens to living	$R_W + C_{tr}$ not less than 50 dB plus discontinuous construction.

Note: Where kitchens are part of an open living area, we consider the kitchen to be part of the living area and in these cases a discontinuous construction is required. This also includes cases where kitchens are back-to-back, however, discontinuous construction is only required on one side.

2.1.2 Floors

Floors	$R_W + C_{tr}$ not less than 50 dB.
Impact Isolation	$L_{n,w}$ not more than 55 dB is recommended.

Note: The impact isolation criteria under the BCA is an $L_{n,w}$ of not more than 62 dB. However, as a member firm of the Association of Australasian Acoustic Consultants, (AAAC) we recommend a criteria of an $L_{n,w}$ of not more than 55 dB be adopted for a development of this type.

2.1.3 Service Risers

to Habitable Rooms	$R_W + C_{tr}$ not less than 40 dB.
to Non-Habitable Rooms	$R_W + C_{tr}$ not less than 25 dB.

2.1.4 Hydraulics

The above requirements also apply to storm water down pipes.

2.1.5 Doors

Door (Connecting)

R_w not less than 30 dB

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2.2 ENVIRONMENTAL PROTECTION (NOISE) REGULATIONS 1997

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The *Environmental Protection (Noise) Regulations 1997* stipulate the allowable noise levels at any noise sensitive premises from other premises. The allowable or assigned noise levels for noise sensitive premises are determined by the calculation of an influencing factor, which is added to the baseline criteria set out in Table 1 of the Regulations. The baseline assigned noise levels are listed in Table 3.1. For commercial premises, the allowable or assigned noise levels are the same for all hours of the day. Table 3.1 also lists the assigned noise levels for commercial premises.

TABLE 3.1 – ASSIGNED NOISE LEVELS

Premises Noise	Receiving	Time of Day	Assigned Level (dB)		
			L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises within 15 metres of a dwelling		0700 - 1900 hours Monday to Saturday	45 + IF	55 + IF	65 + IF
		0900 - 1900 hours Sunday and Public Holidays	40 + IF	50 + IF	65 + IF
		1900 - 2200 hours all days	40 + IF	50 + IF	55 + IF
		2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	35 + IF	45 + IF	55 + IF
Commercial Premises		All hours	60	75	80

Note: The L_{A10} noise level is the noise that is exceeded for 10% of the time.
The L_{A1} noise level is the noise that is exceeded for 1% of the time.
The L_{Amax} noise level is the maximum noise level recorded.

It is a requirement that noise from the site be free of annoying characteristics (tonality, modulation and impulsiveness) at other premises, defined below as per Regulation 9.

“impulsiveness” means a variation in the emission of a noise where the difference between L_{Apeak} and $L_{Amax Slow}$ is more than 15dB when determined for a single representative event;

“modulation” means a variation in the emission of noise that –

- (a) is more than 3dB $L_{A Fast}$ or is more than 3dB $L_{A Fast}$ in any one-third octave band;
- (b) is present for more at least 10% of the representative assessment period; and
- (c) is regular, cyclic and audible;

“tonality” means the presence in the noise emission of tonal characteristics where the difference between –

- (a) the A-weighted sound pressure level in any one-third octave band; and
- (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as L_{ASlow} levels.

Where the above characteristics are present and cannot be practically removed, the following adjustments are made to the measured or predicted level at other premises.

TABLE 3.2 – ADJUSTMENTS FOR ANNOYING CHARACTERISTICS

Where tonality is present	Where modulation is present	Where impulsiveness is present
+ 5 dB	+ 5 dB	+ 10 dB

From a review of the development, the influencing factor for this development would be +7 dB, based on the following :

Commercial Premises within inner circle;

80% + 4 dB

Commercial Premises within outer circle;

60% + 3 dB

Total IF + 7 dB

Hence the influencing factor would be + 8 dB and the assigned noise levels would be as listed in Table 3.3.

TABLE 3.3 - ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises within 15 metres of a dwelling	0700 - 1900 hours Monday to Saturday	52	62	72
	0900 - 1900 hours Sunday and Public Holidays	47	57	72
	1900 - 2200 hours all days	47	57	62
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	42	52	62

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.

We note that noise emissions from the premises need to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997*. This includes noise associated with mechanical services (ie air conditioning and ventilation systems).

2.3 NOISE INGRESS

There are several noise ingress policies that may be applicable to this development, consisting of :

Fremantle Sound Attenuation Policy
Fremantle Port Buffer Area Development Guidelines.

Both the Fremantle Sound Attenuation Policy and the WAPC State Planning Policy result in the same criteria, as listed below :

- L_{eq} 35 dB(A) in sleeping areas (bedrooms); and
- L_{eq} 40 dB(A) in living/work areas and other habitable rooms.

The Fremantle Port Policy dictates minimum construction requirements based on the proximity to the Fremantle Port. The development is located in "Area 2" in accordance with the Port Buffer Area Development Guidelines.

The following is required to be met in accordance with the Port Buffer Area Development Guidelines for "Area 2"

Windows and Openings

Any glass used for windows or other openings shall be laminated safety glass of a minimum thickness of 6mm or "double glazed" utilising laminated or toughened safety glass of a minimum thickness of 3mm

All safety glass shall be manufactured and installed to an appropriate Australian Standard.

Air Conditioning Systems

All air conditioning systems shall incorporate the following features :

- i) Multiple systems to have internally centrally located shut down point and associated procedures for emergency use,*
- ii) Preference for split "refrigerate" systems.*

Quiet house design guidelines shall be applied to residential developments.

All developments shall incorporate roof insulation.

3.0 BCA REQUIREMENTS

The proposed development will be constructed to comply with the requirements of Part F5 of the NCC.

4.0 NOISE INGRESS

During the design development phase of the project, ambient noise levels in the vicinity will be recorded, with the resulting noise levels informing the façade constructions required to ameliorate noise levels internally such that the applicable criteria are met.

The façade considerations are likely to be primarily glazing considerations. It is noted that the development location is reasonable shielded, acoustically, from high ambient noise environments of Fremantle, hence the façade construction is not considered likely to be overly onerous.

The Fremantle Port Buffer Area Development Guidelines requirements for "Area 2" are considered likely to be the defining design criteria for façade construction.

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5.0 NOISE FROM DEVELOPMENT

The main source of noise from the proposed development will be from mechanical services consisting of air-conditioning plant. Noise received at neighbouring premises from these items need to comply with the assigned noise levels as determined under the *Environmental Protection (Noise) Regulations 1997*.

5.1 MECHANICAL SERVICES

Noise levels associated with mechanical services are likely to consist of of air-conditioning plant. Noise received at neighbours from these items need to comply with the assigned noise levels as determined under the *Environmental Protection (Noise) Regulations 1997*.

As the mechanical services could operate during the night, noise emissions from the development needs to comply with the assigned L_{A10} night period noise level of 42 dB(A) at residential premises. Potentially, noise emissions from mechanical services could be tonal, in which case an +5 dB(A) penalty for a tonal component could be applied to the resultant noise levels. Therefore, the design level at the neighbouring residential premises would be 37 L_{A10} dB.

Proposed locations of equipment appears to be predominantly the roof top (at least for air conditioning).

Given the location of the development, compliance at surrounding premises is not considered onerous, with the locating of the equipment behind barriers for visual amenity likely to be more than sufficient to ensure that the ambient noise level in the area is not affected by mechanical plant associated with the proposed development.

A complete analysis of the noise impact would be undertaken during the design development phase of the project in response to likely development approval conditions for the project.

5.2 COMMERCIAL TENANCY

Noise levels associated with the proposed commercial tenancy will need to be assessed as a part of the application process for the tenant at this location (which is unknown at this stage of the development).

The intended use of the space is not completely known at this stage, however, with the alfresco area allocation at the Pakenham Street frontage, the tenancy could potentially be a small café.

Noise levels associated with the use of the space would be easily able to be managed – given the ambient noise level in the area at the times at which this tenancy could operate.

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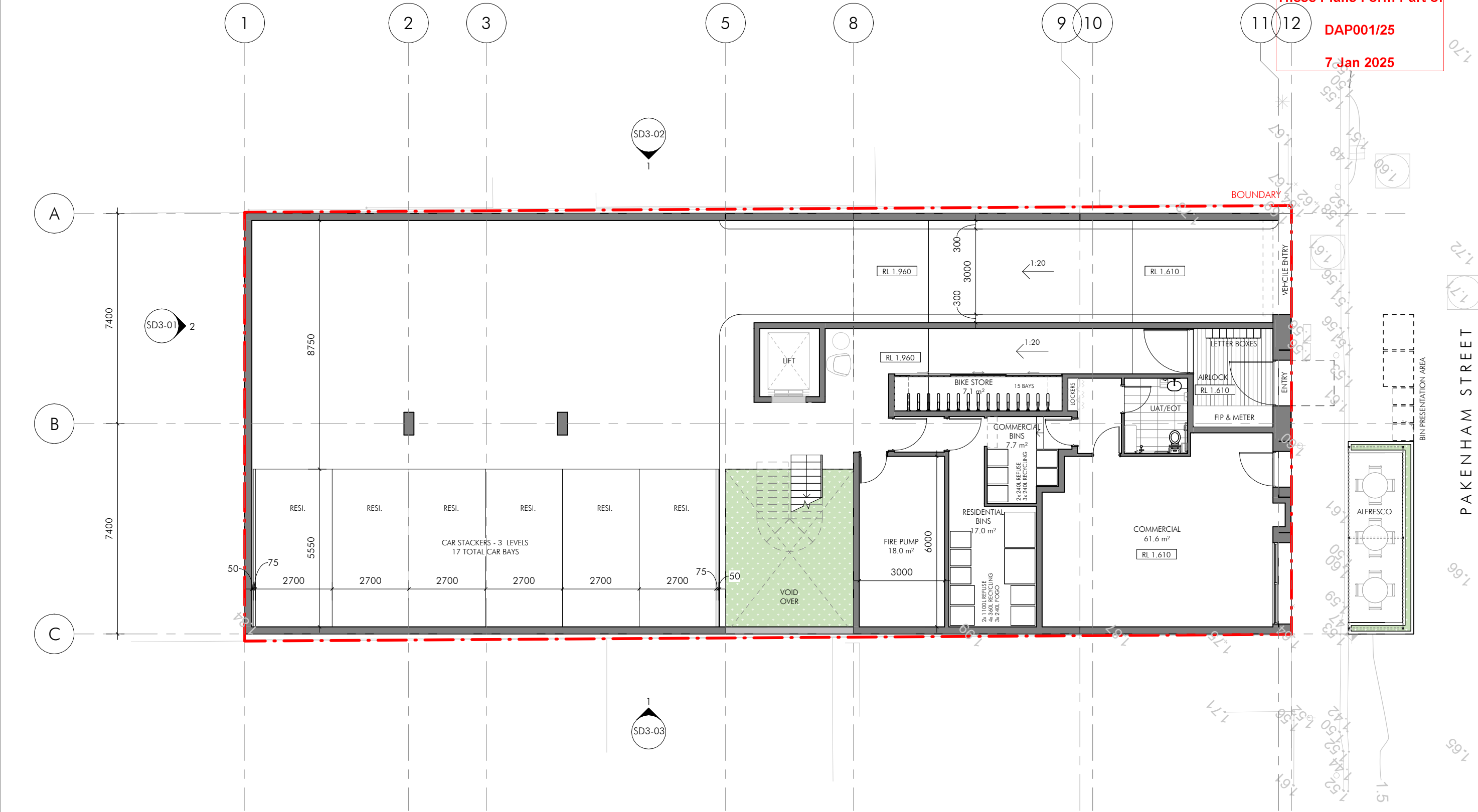
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APPENDIX A

DA Plans



Pakenham Residences
47 Pakenham Street, Fremantle

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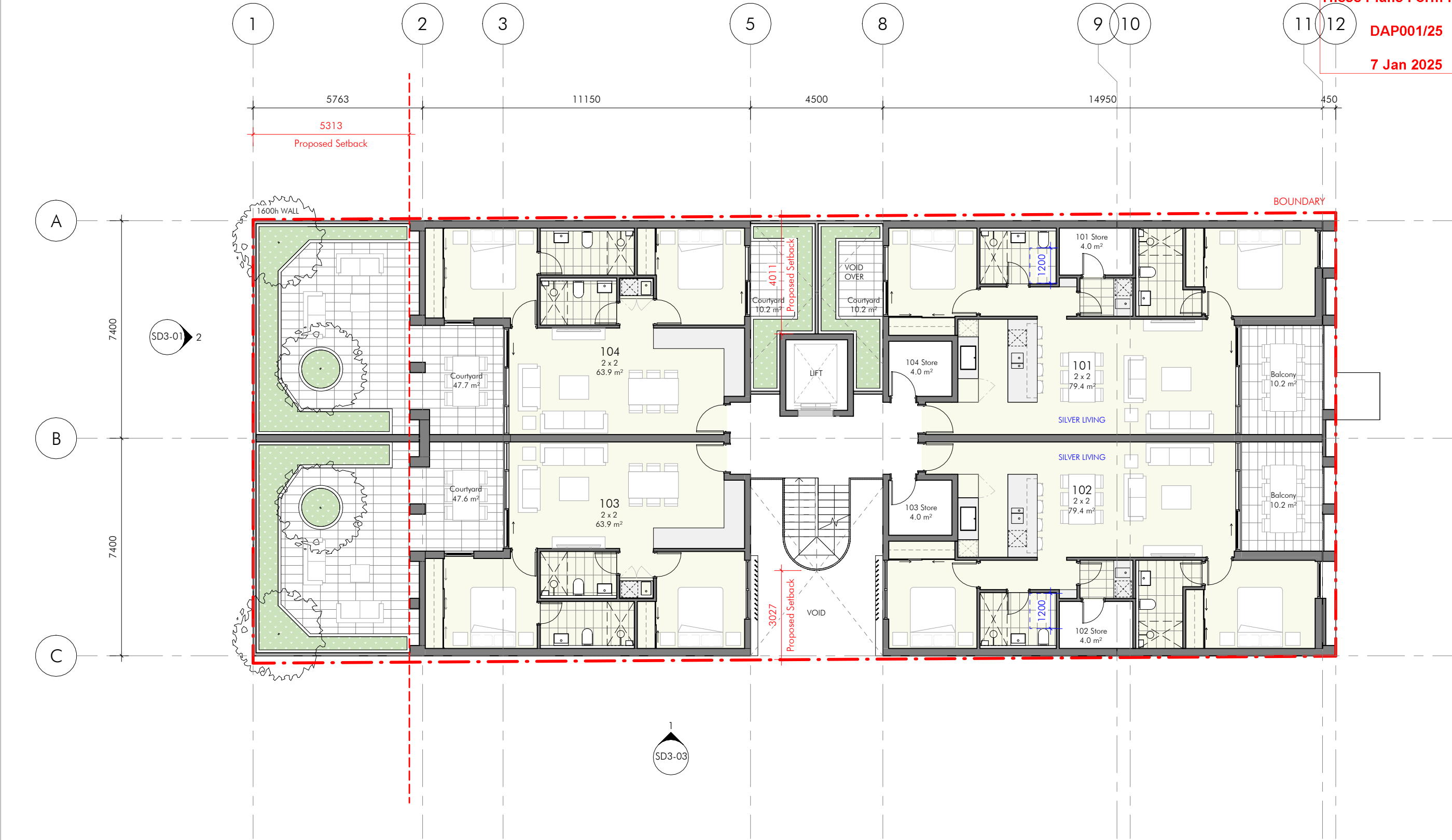


DATE ISSUED
17.12.2024

DRAWING NAME
GROUND FLOOR
PROJECT PHASE
DA

DRAWING No.
SD2-01

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M



Apartment Schedule			
Unit Number	Level	Layout	Internal Area
101	Level 1	2 x 2	79.4 m ²
102	Level 1	2 x 2	79.4 m ²
103	Level 1	2 x 2	63.9 m ²
104	Level 1	2 x 2	63.9 m ²
201	Level 2	2 x 2	79.4 m ²
202	Level 2	2 x 2	79.4 m ²
203	Level 2	2 x 2	63.9 m ²
204	Level 2	2 x 2	63.9 m ²
301	Level 3	3 x 2	101.7 m ²
302	<varies>	1 x 1	64.9 m ²
303	Level 3	3 x 2	91.2 m ²
401	Level 4	3 x 2	90.8 m ²
402	Level 4	3 x 2	91.2 m ²
1,012.6 m ²			



Pakenham Residences
47 Pakenham Street, Fremantle

SCALE 1 : 100 @A2
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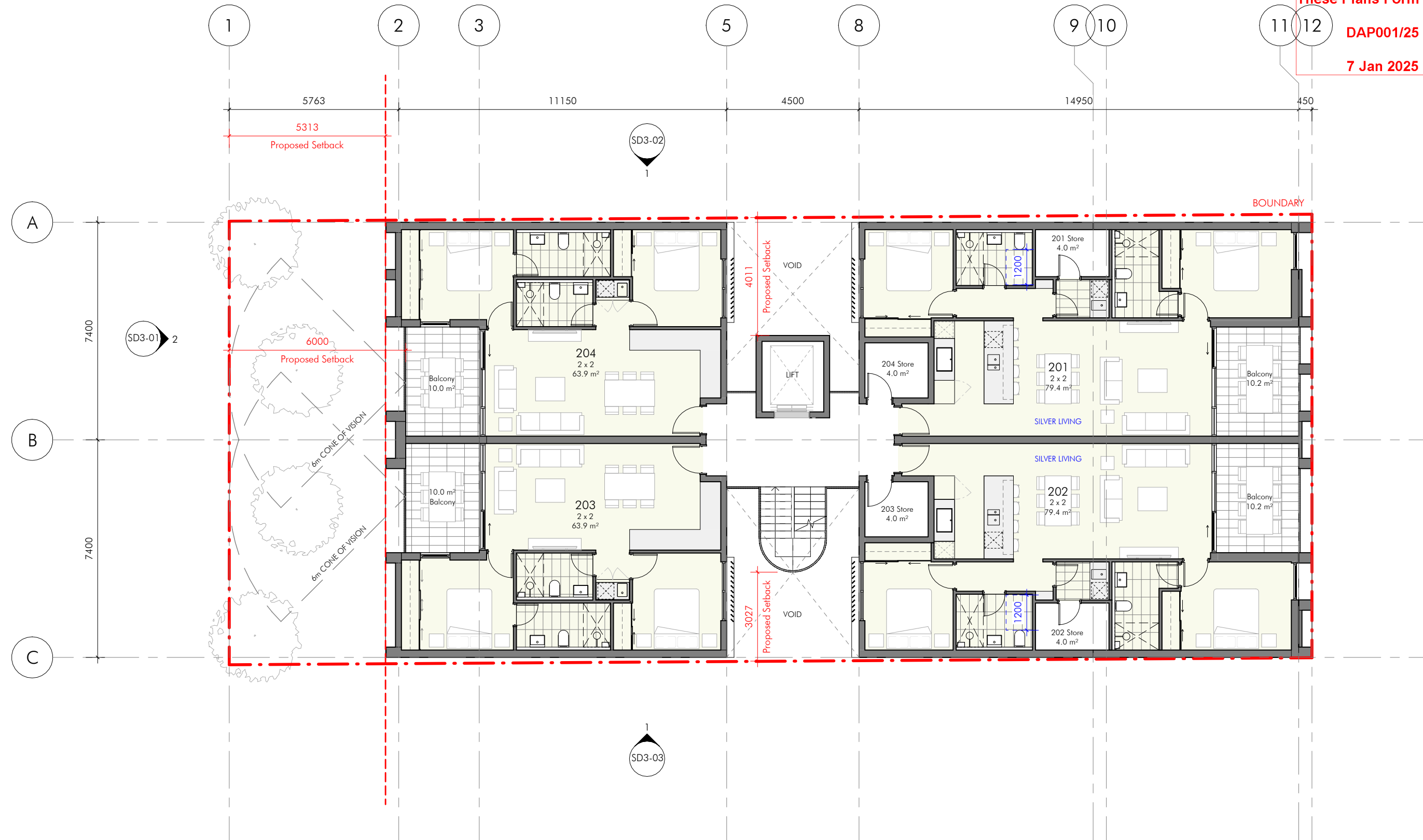


DATE ISSUED
17.12.2024

DRAWING NAME
LEVEL 1
PROJECT PHASE
DA

DRAWING No.
SD2-02

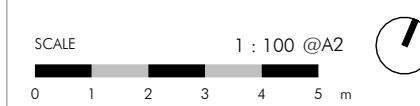
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Unit Number	Level	Layout	Internal Area
101	Level 1	2 x 2	79.4 m ²
102	Level 1	2 x 2	79.4 m ²
103	Level 1	2 x 2	63.9 m ²
104	Level 1	2 x 2	63.9 m ²
201	Level 2	2 x 2	79.4 m ²
202	Level 2	2 x 2	79.4 m ²
203	Level 2	2 x 2	63.9 m ²
204	Level 2	2 x 2	63.9 m ²
301	Level 3	3 x 2	101.7 m ²
302	<varies>	1 x 1	64.9 m ²
303	Level 3	3 x 2	91.2 m ²
401	Level 4	3 x 2	90.8 m ²
402	Level 4	3 x 2	91.2 m ²
			1,012.6 m ²



Pakenham Residences
47 Pakenham Street, Fremantle



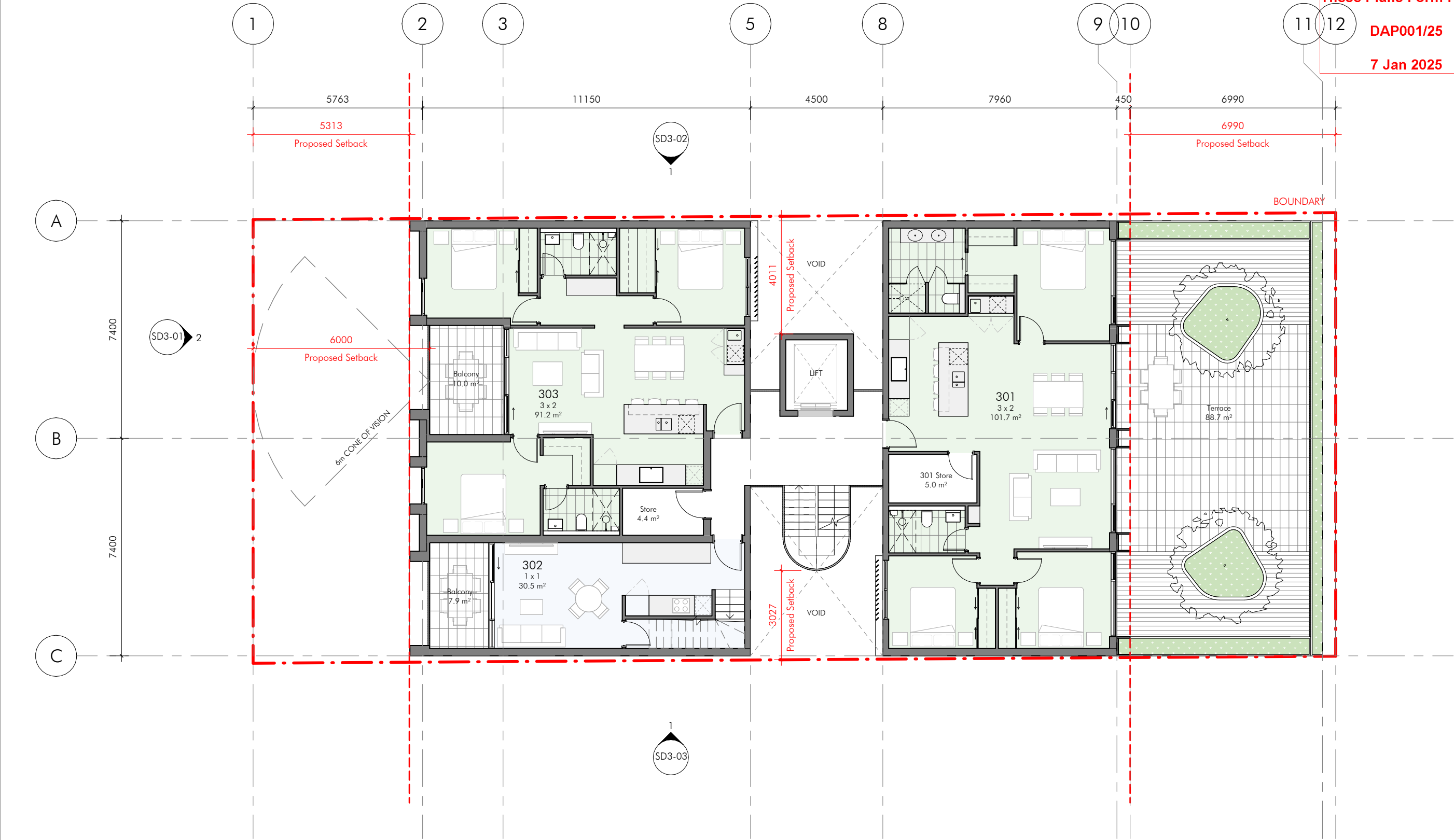
DATE ISSUED
17.12.2024

DRAWING NAME
LEVEL 2
PROJECT PHASE
DA

DRAWING No.

SD2-03

REV
K



Apartment Schedule			
Unit Number	Level	Layout	Internal Area
101	Level 1	2 x 2	79.4 m²
102	Level 1	2 x 2	79.4 m²
103	Level 1	2 x 2	63.9 m²
104	Level 1	2 x 2	63.9 m²
201	Level 2	2 x 2	79.4 m²
202	Level 2	2 x 2	79.4 m²
203	Level 2	2 x 2	63.9 m²
204	Level 2	2 x 2	63.9 m²
301	Level 3	3 x 2	101.7 m²
302	<varies>	1 x 1	64.9 m²
303	Level 3	3 x 2	91.2 m²
401	Level 4	3 x 2	90.8 m²
402	Level 4	3 x 2	91.2 m²
1,012.6 m²			



Pakenham Residences
47 Pakenham Street, Fremantle

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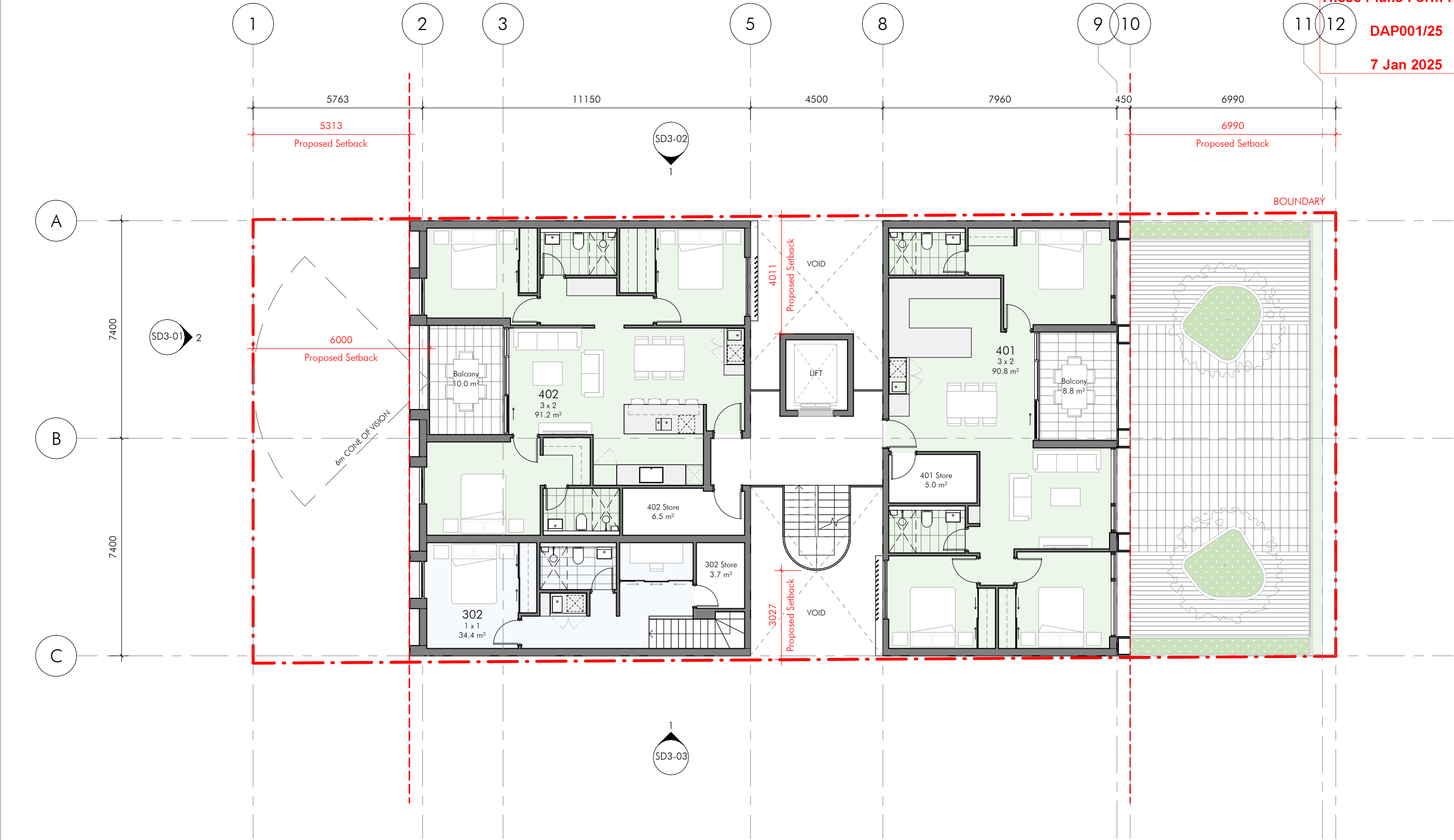


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17.12.2024

DRAWING NAME
LEVEL 3
PROJECT PHASE
DA

DRAWING No.
SD2-04

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Apartment Schedule			
Unit Number	Level	Layout	Internal Area
101	Level 1	2 x 2	79.4 m ²
102	Level 1	2 x 2	79.4 m ²
103	Level 1	2 x 2	63.9 m ²
104	Level 1	2 x 2	63.9 m ²
201	Level 2	2 x 2	79.4 m ²
202	Level 2	2 x 2	79.4 m ²
203	Level 2	2 x 2	63.9 m ²
204	Level 2	2 x 2	63.9 m ²
301	Level 3	3 x 2	101.7 m ²
302	<varies>	1 x 1	64.9 m ²
303	Level 3	3 x 2	91.2 m ²
401	Level 4	3 x 2	90.8 m ²
402	Level 4	3 x 2	91.2 m ²
1,012.6 m ²			



Pakenham Residences
47 Pakenham Street, Fremantle

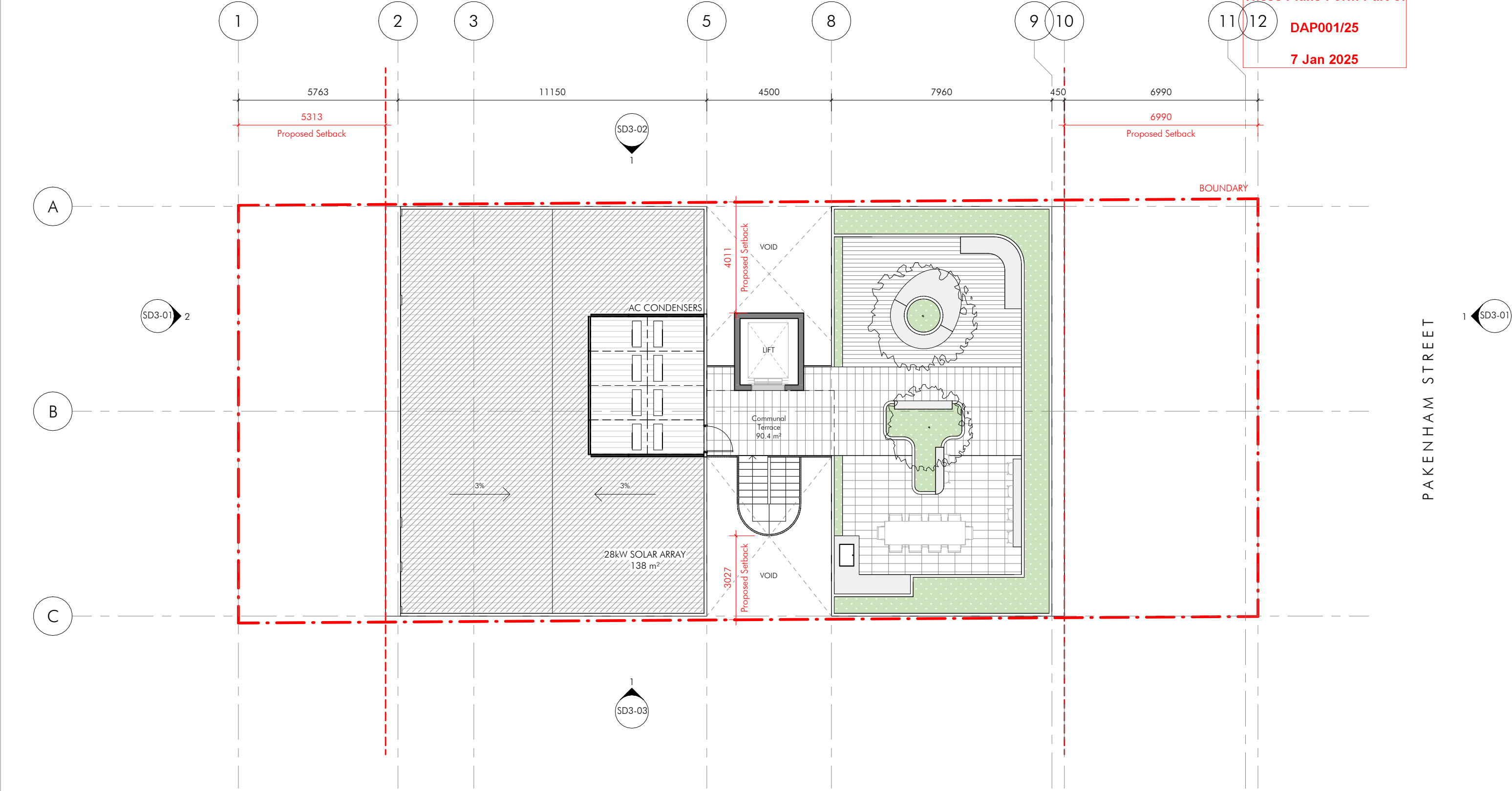
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17.12.2024

DRAWING NAME
LEVEL 4
PROJECT PHASE
DA

DRAWING No.
SD2-05

REV
L



Pakenham Residences
47 Pakenham Street, Fremantle

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DATE ISSUED
17.12.2024

DRAWING NAME
TERRACE
PROJECT PHASE
DA

DRAWING No.
SD2-06

REV
J

Appendix 10: Management plan

Waste management plan



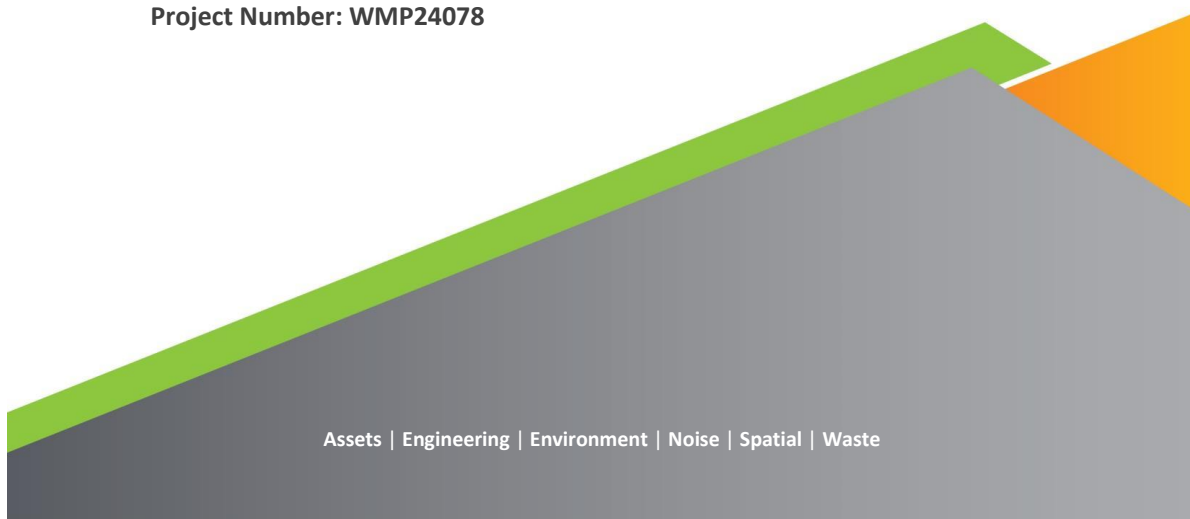
Waste Management Plan

47 Pakenham Street, Fremantle

Prepared for ADELCAP Properties Pty Ltd

19 December 2024

Project Number: WMP24078



Waste Management Plan
47 Pakenham Street, Fremantle
ADELCAP Properties Pty Ltd



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DOCUMENT CONTROL					
Version	Description	Date	Author	Reviewer	Approver
1.0	First Approved Release	19/12/2024	SC/MA	AB	AB
Approval for Release					
Name	Position	File Reference			
Ann Brouwer	Project Manager – Waste Management Consultant	WMP24078-02_Waste Management Plan_1.0			
Signature	Ann Brouwer Digitally signed by Ann Brouwer Date: 2024-12-19 15:33:44				
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Waste Management Plan
 47 Pakenham Street, Fremantle
 ADELCA Properties Pty Ltd



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Executive Summary

ADELCA Properties Pty Ltd is seeking development approval for the proposed mixed-use development located at 47 Pakenham Street, Fremantle (the Proposal).

To satisfy the conditions of the development application the City of Fremantle (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

A summary of the bin size, numbers, collection frequency and collection method is provided in the below table.

Proposed Waste Collection Summary

Waste Type	Generation (L/week)	Bin Size (L)	Number of Bins	Collection Frequency	Collection
Residential Bin Storage Area					
Refuse	840	1,100	Two	Once each fortnight	City of Fremantle
Recycling	700	360	Four	Once each fortnight	City of Fremantle
FOGO	580	240	Three	Once each week	City of Fremantle
Commercial Bin Storage Area					
Refuse	336	240	Two	Once each week	City of Fremantle
Recycling	336	240	Three	Once each fortnight	City of Fremantle

The City will collect refuse, recyclables and FOGO from the Proposal utilising its kerbside collection service. The City's waste collection vehicle will service the bins from the Bin Presentation Area on Pakenham Street.

A building manager/caretaker will oversee the relevant aspects of waste management at the Proposal.

Waste Management Plan
47 Pakenham Street, Fremantle
ADELCAP Properties Pty Ltd



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Diagram 2: Bin Presentation Area

Waste Management Plan
47 Pakenham Street, Fremantle
ADELCAP Properties Pty Ltd

Figures

Figure 1: Locality Plan



Waste Management Plan
47 Pakenham Street, Fremantle
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1 Introduction

ADELCAP Properties Pty Ltd is seeking development approval for the proposed mixed-use development located at 47 Pakenham Street, Fremantle (the Proposal).

To satisfy the conditions of the development application the City of Fremantle (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

The Proposal is bordered by residential/commercial properties to the north, south and west and Pakenham Street to the east, residential development to the east, as shown in Figure 1.

1.1 Objectives and Scope

The objective of this WMP is to outline the equipment and procedures that will be adopted to manage waste (refuse, recyclables and FOGO) at the Proposal. Specifically, the WMP demonstrates that the Proposal is designed to:

- Adequately cater for the anticipated volume of waste to be generated;
- Provide an adequately sized Bin Storage Area, including appropriate bins; and
- Allow for efficient collection of bins by appropriate waste collection vehicles.

To achieve the objective, the scope of the WMP comprises:

- Section 2: Waste Generation;
- Section 3: Waste Storage;
- Section 4: Waste Collection;
- Section 5: Waste Management; and
- Section 6: Conclusion.

Waste Management Plan
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2 Waste Generation

The following section shows the waste generation rates used and the estimated waste volumes to be generated at the Proposal.

2.1 Proposed Tenancies

The anticipated volume of refuse, recyclables and FOGO is based on the number of apartments and the floor area (m²) of the commercial tenancies at the Proposal. The Proposal consists of the following:

Residential:

- One Bedroom Apartments – 1;
- Two Bedroom Apartments – 8; and
- Three Bedroom Apartments – 4.

Commercial:

- Commercial (Takeaway Café) – 60m².

2.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Vincent's *Waste Guidelines for New Developments* (2020) and the Western Australian Local Government Association's (WALGA) *Commercial and Industrial Waste Management Plan Guidelines* (2014).

Table 2-1 shows the waste generation rates which have been applied to the Proposal.

Table 2-1: Waste Generation Rates

Tenancy Use Type	Guideline Reference	Refuse Generation Rate	Recycling Generation Rate	FOGO Generation Rate
Residential				
One Bedroom Apartments	City of Vincent – >12 dwellings 1 bed	40L/week	20L/week	20L/week
Two Bedroom Apartments	City of Vincent – >12 dwellings 2 bed	60L/week	40L/week	40L/week
Three Bedroom Apartments	City of Vincent – >12 dwellings 3 bed	80L/week	90L/week	60L/week
Commercial				
Commercial (Takeaway Café)	WALGA – Takeaway Stores	80L/100m ² /day	80L/100m ² /day	-

2.3 Waste Generation Volumes

Waste generation is estimated by volume in litres (L) as this is generally the influencing factor when considering bin size, numbers and storage space required.

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47 Pakenham Street, Fremantle
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2.3.1 Residential Waste

Residential waste generation volumes in litres per week (L/week) adopted for this waste assessment are shown in Table 2-2. It is estimated that the residential apartments at the Proposal will generate 840L of refuse, 700L of recyclables and 580L of FOGO each week.

Table 2-2: Estimated Waste Generation – Residential

Residential Apartments	Number of Apartments	Waste Generation Rate (L/week)	Waste Generation (L/week)
Refuse			
One Bedroom Apartments	1	40	40
Two Bedroom Apartments	8	60	480
Three Bedroom Apartments	4	80	320
Total			840
Recyclables			
One Bedroom Apartments	1	20	20
Two Bedroom Apartments	8	40	320
Three Bedroom Apartments	4	90	360
Total			700
FOGO			
One Bedroom Apartments	1	20	20
Two Bedroom Apartments	8	40	320
Three Bedroom Apartments	4	60	240
Total			580

2.3.2 Commercial Waste

Commercial waste generation volumes in litres per week (L/week) adopted for this waste assessment are shown in Table 2-3. It is estimated that the commercial tenancies at the Proposal will generate 336L of refuse and 336L of recyclables each week.

Table 2-3: Estimated Waste Generation – Commercial

Commercial (Takeaway Café)	Area (m²)	Waste Generation Rate (L/100m²/day)	Waste Generation (L/week)
Refuse	60	80	336
Recyclables	60	80	336
Total			672

Waste Management Plan
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ADELCAP Properties Pty Ltd



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3 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Areas, as shown in Diagram 1, and discussed in the following sub-sections.

3.1 Internal Transfer of Waste

To promote positive recycling behaviour and maximise diversion from landfill, each apartment will have room to accommodate two under the counter/kitchen bins for the source separation of refuse and recyclables, and a kitchen caddy for the separation of FOGO. Residents will take the contents of these internal bins to the Residential Bin Storage Area for consolidation into the appropriate bins.

The commercial tenancy will also have a minimum of two internal bins to facilitate the source separation of refuse and recyclables. The contents of these internal bins will be collected by staff/cleaners to the Commercial Bin Storage Area and deposited into the appropriate bins, as required.

All bins will be colour coded and labelled in accordance with Australian Standards (AS 4123.7) to assist residents/staff/cleaners to dispose of their separate waste materials in the correct bins.

3.2 Bin Sizes

Table 3-1 gives the typical dimensions of standard bins sizes that may be utilised at the Proposal. It should be noted that these bin dimensions are approximate and can vary slightly between suppliers.

Table 3-1: Typical Bin Dimensions

Dimensions (m)	Bin Sizes			
	240L	360L	660L	1,100L
Depth	0.730	0.848	0.780	1.070
Width	0.585	0.680	1.260	1.240
Height	1.060	1.100	1.200	1.330

Reference: SULO and Veolia Bin Specification Data Sheets

3.3 Residential Bin Storage Area Size

To ensure sufficient area is available for storage of the residential bins, the amount of bins required for the Residential Bin Storage Area was modelled utilising the estimated waste generation in Table 2-2, bin sizes in Table 3-1 and based on collection of refuse and recyclables once each fortnight, and FOGO once each week.

Based on the results shown in Table 3-2 the Residential Bin Storage Area has been sized to accommodate:

- Two 1,100L refuse bins;
- Four 360L recycling bins; and
- Three 240L FOGO bins.

Waste Management Plan
 47 Pakenham Street, Fremantle
 ADELCA Properties Pty Ltd



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Table 3-2: Bin Requirements for Bin Storage Area – Residential

Waste Stream	Waste Generation (L/week)	Number of Bins Required			
		240L	360L	660L	1,100L
Refuse	840	7	-	3	2
Recycling	700	6	4	-	-
FOGO	580	3	-	-	-

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The configuration of these bins within the Residential Bin Storage Area is shown in Diagram 1. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 1 represents the maximum requirements assuming fortnightly collection of refuse and recyclables, and weekly collection of FOGO.

3.4 Commercial Bin Storage Area Size

To ensure sufficient area is available for storage of the commercial bins, the amount of bins required for the Commercial Bin Storage Area was modelled utilising the estimated waste generation in Table 2-3, bin sizes in Table 3-1 and based on collection of refuse once each week and recyclables once each fortnight.

Based on the results shown in Table 3-3 the Commercial Bin Storage Area has been sized to accommodate:

- Two 240L refuse bins; and
- Three 240L recycling bins.

Table 3-3: Bin Requirements for Bin Storage Area – Commercial

Waste Stream	Waste Generation (L/week)	Number of Bins Required			1,100L
		240L	360L	660L	
Refuse	336	2	-	1	1
Recycling	336	3	2	2	1

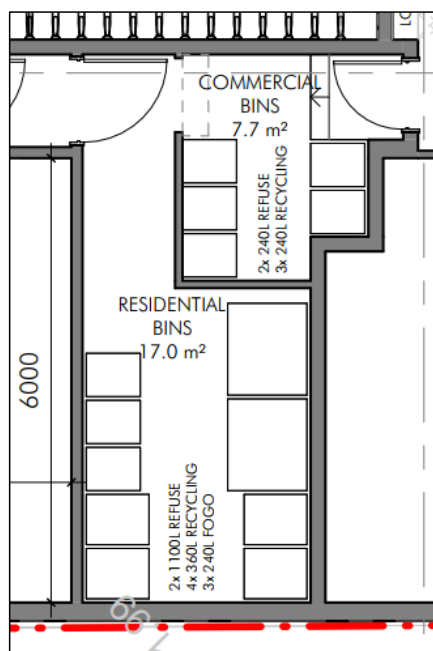
The configuration of these bins within the Commercial Bin Storage Area is shown in Diagram 1. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 1 represents the maximum requirements assuming one collection each week of refuse and one collection each fortnight of recyclables.

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Diagram 1: Residential and Commercial Bin Storage Areas



3.5 Bin Storage Area Design

The design of the Bin Storage Areas will take into consideration:

- Smooth impervious floor sloped to a drain connected to the sewer system;
- Taps for washing of bins and Bin Storage Areas;
- Adequate aisle width for easy manoeuvring of bins;
- No double stacking of bins;
- Doors to the Bin Storage Areas self-closing and vermin proof;
- Doors to the Bin Storage Areas wide enough to fit bins through;
- Ventilated to a suitable standard;
- Appropriate signage;
- Undercover where possible and be designed to not permit stormwater to enter the drain;
- Located behind the building setback line;
- Bins not to be visible from the property boundary or areas trafficable by the public; and
- Bins are reasonably secured from theft and vandalism.

Bin numbers and storage space within the Bin Storage Areas will be monitored by the building manager/caretaker during the operation of the Proposal to ensure that the number of bins and collection frequency is sufficient.

Waste Management Plan
47 Pakenham Street, Fremantle
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4 Waste Collection

The City will service the residential and commercial waste from the Proposal and provide the below bins and collection frequencies:

Residential:

- Two 1,100L refuse bins, collected once each fortnight;
- Four 360L recycling bins, collected once each fortnight; and
- Three 240L FOGO bins, collected once each week.

Commercial:

- Two 240L refuse bins collected once each week; and
- Three 240L recycling bins, collected once each fortnight.

The City will service the bins from the Bin Presentation Area on Pakenham Street utilising its side or rear loader waste collection vehicle, as shown in Diagram 2. Note, Diagram 2 shows the maximum number of bins that would be required on the verge on collection day.

Bins will be presented for collection 1m from the verge with the wheels and handles facing away from the street. The bins will remain clear of obstructions such as power poles, signs and street trees, and will be placed so as not to obstruct pedestrians, footpaths or bike lanes. Bins will be lined up neatly and in a single row along the verge, with sufficient space between each bin to facilitate collection by the City's waste collection vehicle.

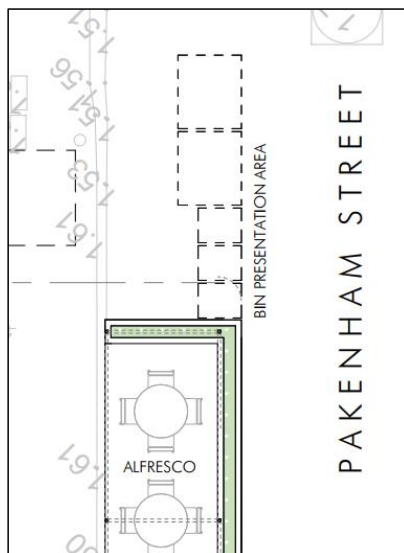
The building manager/caretaker will ferry the bins to and from the Bin Presentation Area on collection days. The travel path between the Bin Storage Areas and the Bin Presentation Area will be of flat surface and kept free of obstacles. The building manager/caretaker will return the bins to the respective Bin Storage Area as soon as possible on the same day following collection.

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Diagram 2: Bin Presentation Area



4.1 Bulk and Speciality Waste

To assist with the reduction of illegal dumping of bulky wastes, each apartment has an allocated storage room of at least 4m² which could be used for the temporary storage of bulk waste. The building manager/caretaker will liaise with residents on procedures for bulk waste disposal within the Proposal, as required. The City also provides residents with six tip passes to the Fremantle Recycling Centre to dispose bulky wastes, on presentation of valid identification.

Adequate space may also be allocated throughout the Proposal for placement of cabinets/containers for collection and storage of bulk and specialty wastes that are unable to be disposed of within the bins in the Commercial Bin Storage Area. These materials will be removed from the Proposal once sufficient volumes have been accumulated to warrant disposal, with assistance from the building manager/caretaker. These may include items such as:

- Refurbishment wastes from fit outs;
- Batteries and E-wastes;
- White goods/appliances;
- Cleaning chemicals; and
- Commercial Light globes.

Waste Management Plan
47 Pakenham Street, Fremantle
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5 Waste Management

A building manager/caretaker will be engaged to complete the following tasks:

- Monitoring and maintenance of bins and the Bin Storage Areas;
- Cleaning of bins and Bin Storage Areas, when required;
- Ferrying of bins to and from the Bin Storage Area and Bin Presentation Area on collection days;
- Ensure all residents and tenants at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor resident and tenant behaviour and identify requirements for further education and/or signage;
- Monitor bulk and speciality waste accumulation and assist with its removal, as required;
- Regularly engage with residents and tenants to develop opportunities to reduce waste volumes and increase resource recovery; and
- Regularly engage with the City to ensure efficient and effective waste service is maintained.

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6 Conclusion

As demonstrated within this WMP, the Proposal provides sufficiently sized Bin Storage Areas for storage of refuse, recyclables and FOGO, based on the estimated waste generation volumes and suitable configuration of bins. This indicates that adequately designed Bin Storage Areas have been provided, and collection of refuse, recyclables and FOGO can be completed from the Proposal.

The above is achieved using:

Residential:

- Two 1,100L refuse bins, collected once each fortnight;
- Four 360L recycling bins, collected once each fortnight; and
- Three 240L FOGO bins, collected once each week.

Commercial:

- Two 240L refuse bins collected once each week; and
- Three 240L recycling bins, collected once each fortnight.

The City will collect refuse, recyclables and FOGO from the Proposal utilising its kerbside collection service. The City's waste collection vehicle will service the bins from the Bin Presentation Area on Pakenham Street.

A building manager/caretaker will oversee the relevant aspects of waste management at the Proposal.

Waste Management Plan
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Figures

Figure 1: Locality Plan





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Assets | Engineering | Environment | Noise | Spatial | Waste

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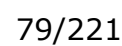
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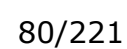
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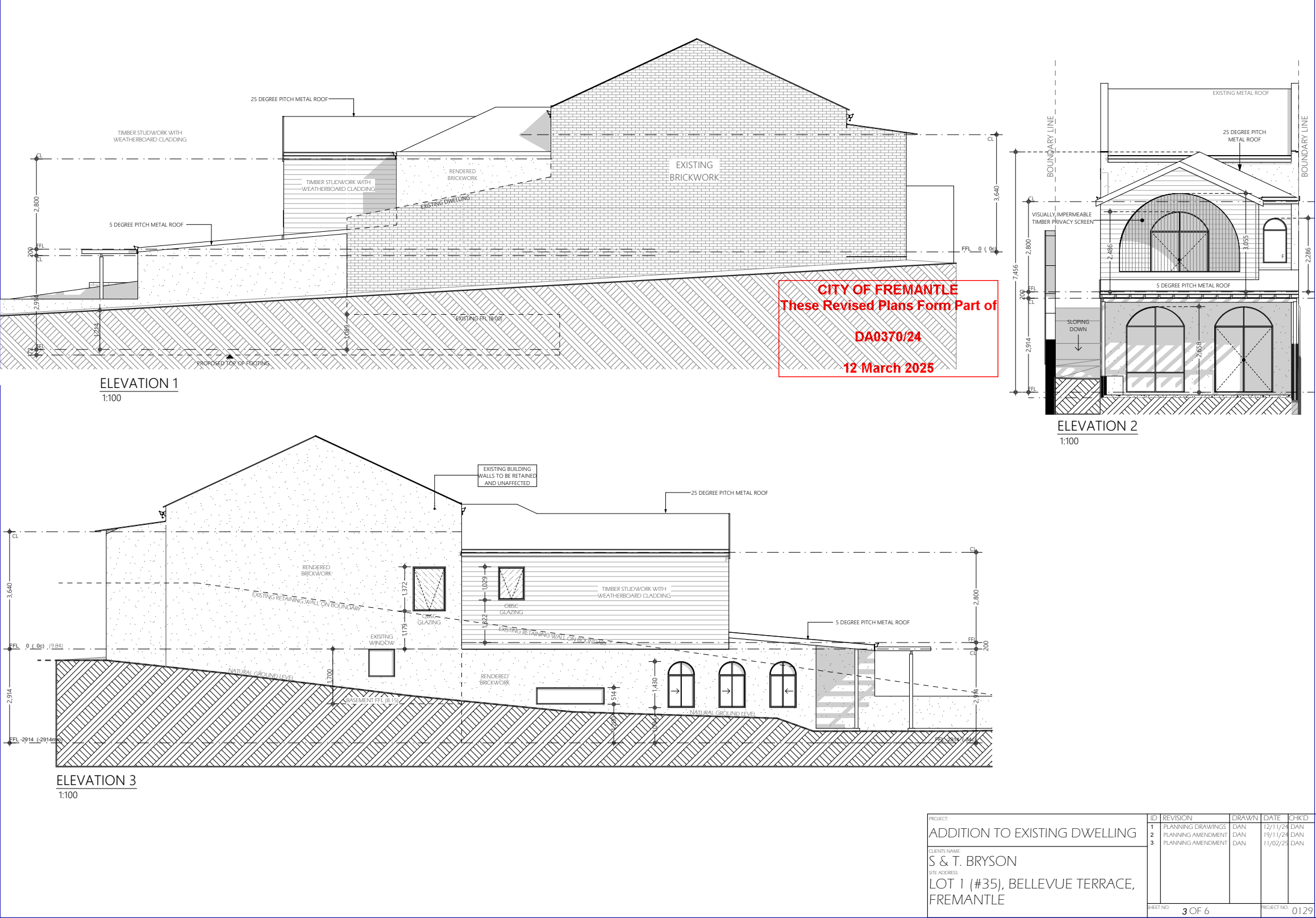
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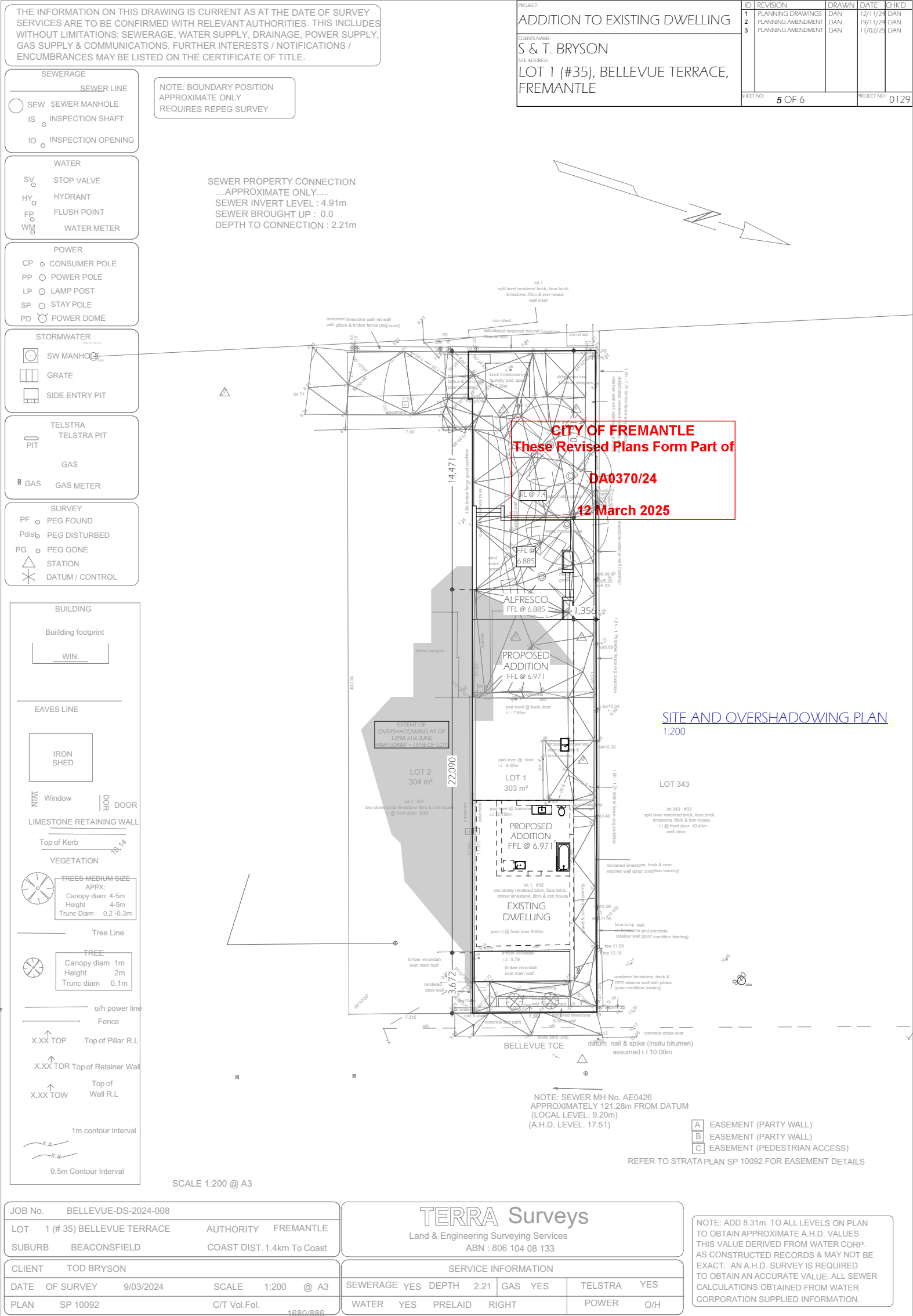
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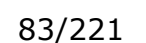
P: 1300 251 070
E: enquiries@talisconsultants.com.au

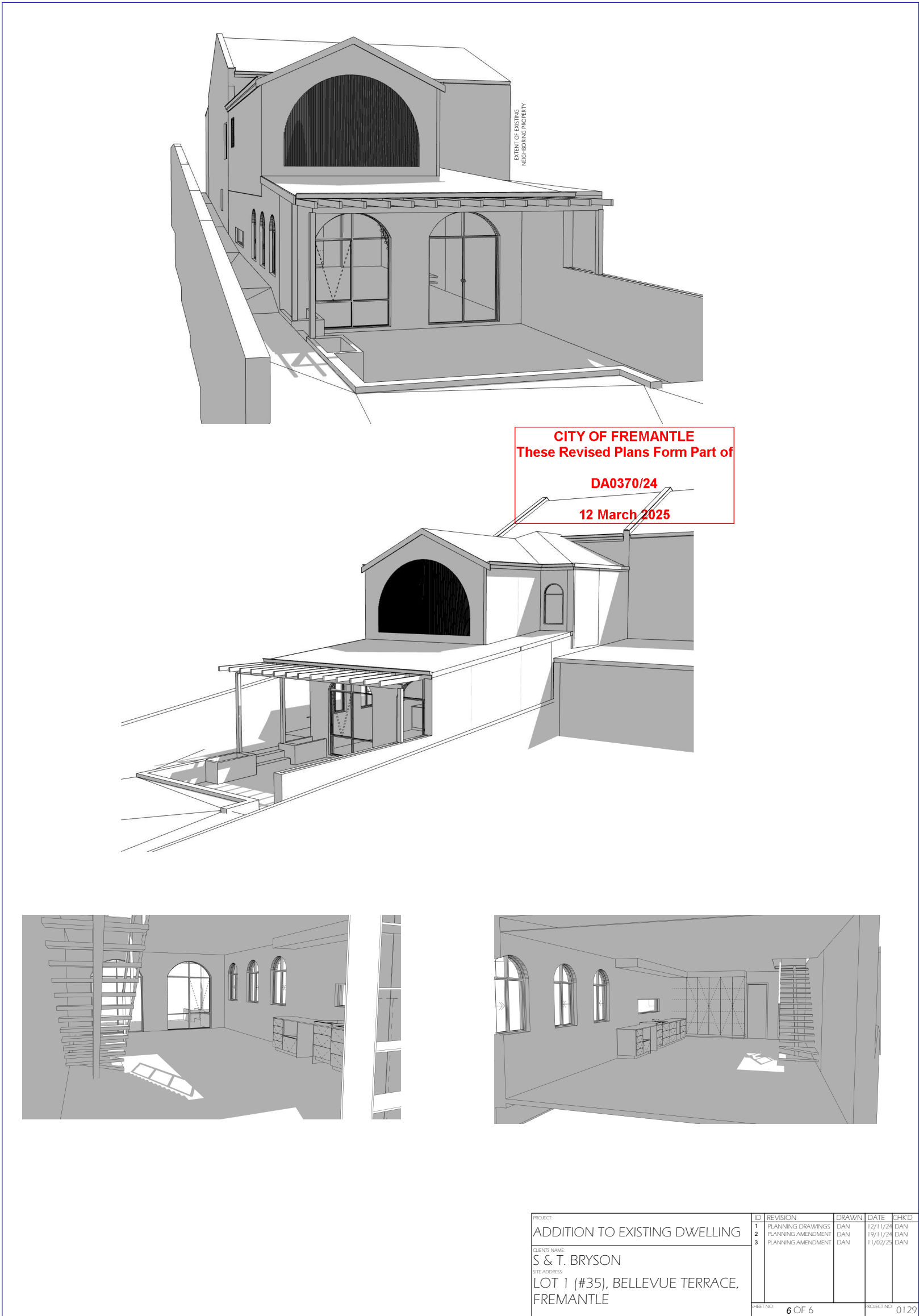








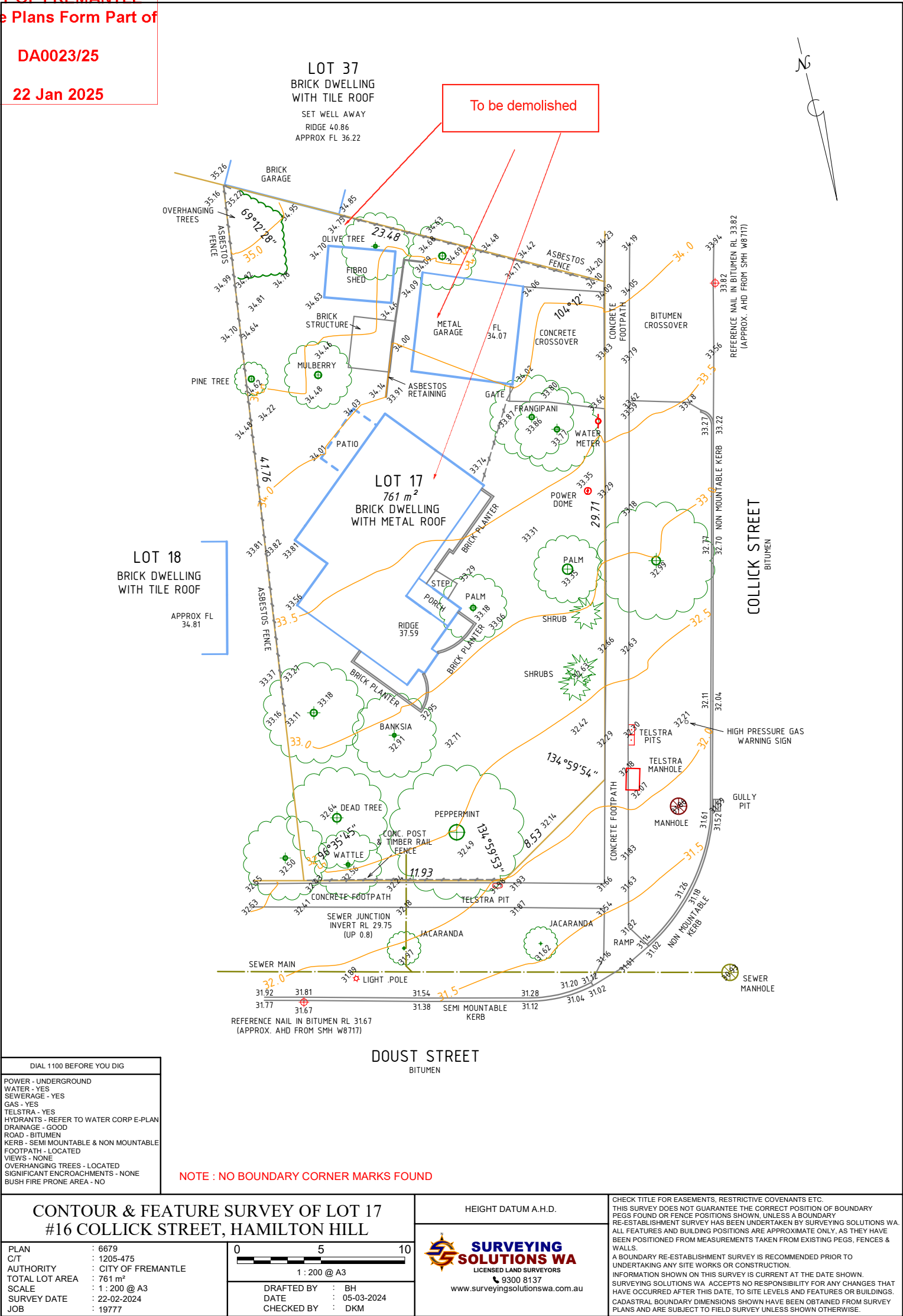




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DA1.1	DEMO SITE PLAN	2	26.03.2025
DA1.2	PROPOSED SITE PLAN	2	26.03.2025
DA1.3	PROPOSED SITE PLAN WITH NEIGHBOURS	2	26.03.2025
DA2.0	PROPOSED GROUND FLOOR PLAN	2	26.03.2025
DA2.1	PROPOSED FIRST FLOOR PLAN	2	26.03.2025
DA2.2	PROPOSED FIRST FLOOR PLAN - OVERLOOKING DIAGRAM	2	26.03.2025
DA2.3	PROPOSED ROOF PLAN	2	26.03.2025

DRAWING LIST - DA

SHEET NO.	SHEET NAME	REV	ISSUED
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DA2.5	OVERSHADOWING PLAN - SUMMER SOLSTICE	2	26.03.2025
DA3.0	ELEVATIONS	1	05.08.2024
DA3.1	ELEVATIONS	1	05.08.2024
DA3.2	ELEVATIONS	1	05.08.2024
DA3.3	ELEVATIONS - FENCING	1	05.08.2024
DA4.0	PROPOSED BUILDING PERSPECTIVES	1	05.08.2024
DA4.1	PROPOSED BUILDING PERSPECTIVES	1	05.08.2024

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26 March 2025



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15 BUTSON STREET, HILTON 6183

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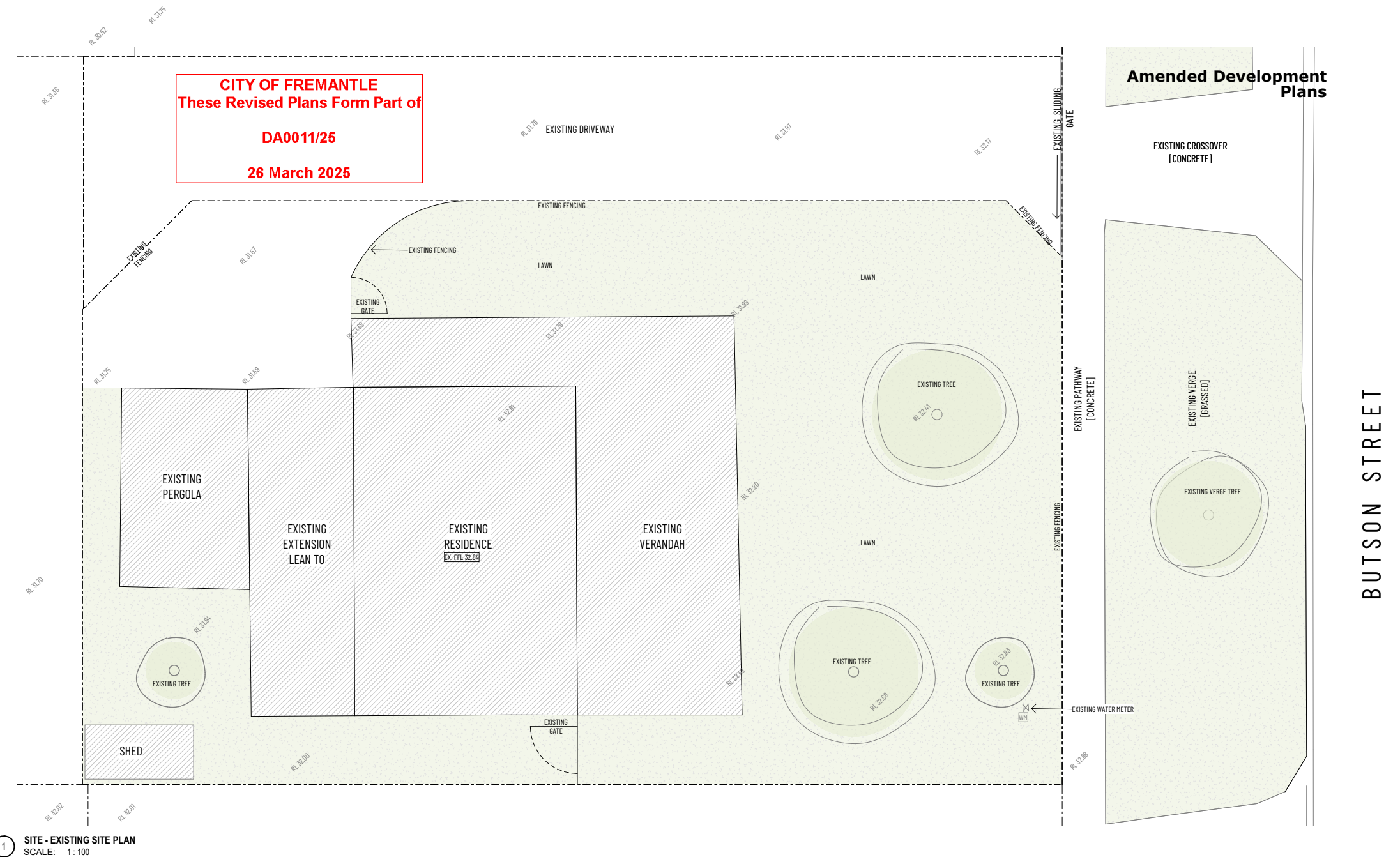
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2	ISSUED FOR DEVELOPMENT APPROVAL - ALTERNATION & ADDITION, NORTH POINT	LD	26.03.2025

DRAWING
COVER

REVISION
2

SHEET No.

DA0.0



1 SITE - EXISTING SITE PLAN
SCALE: 1:100

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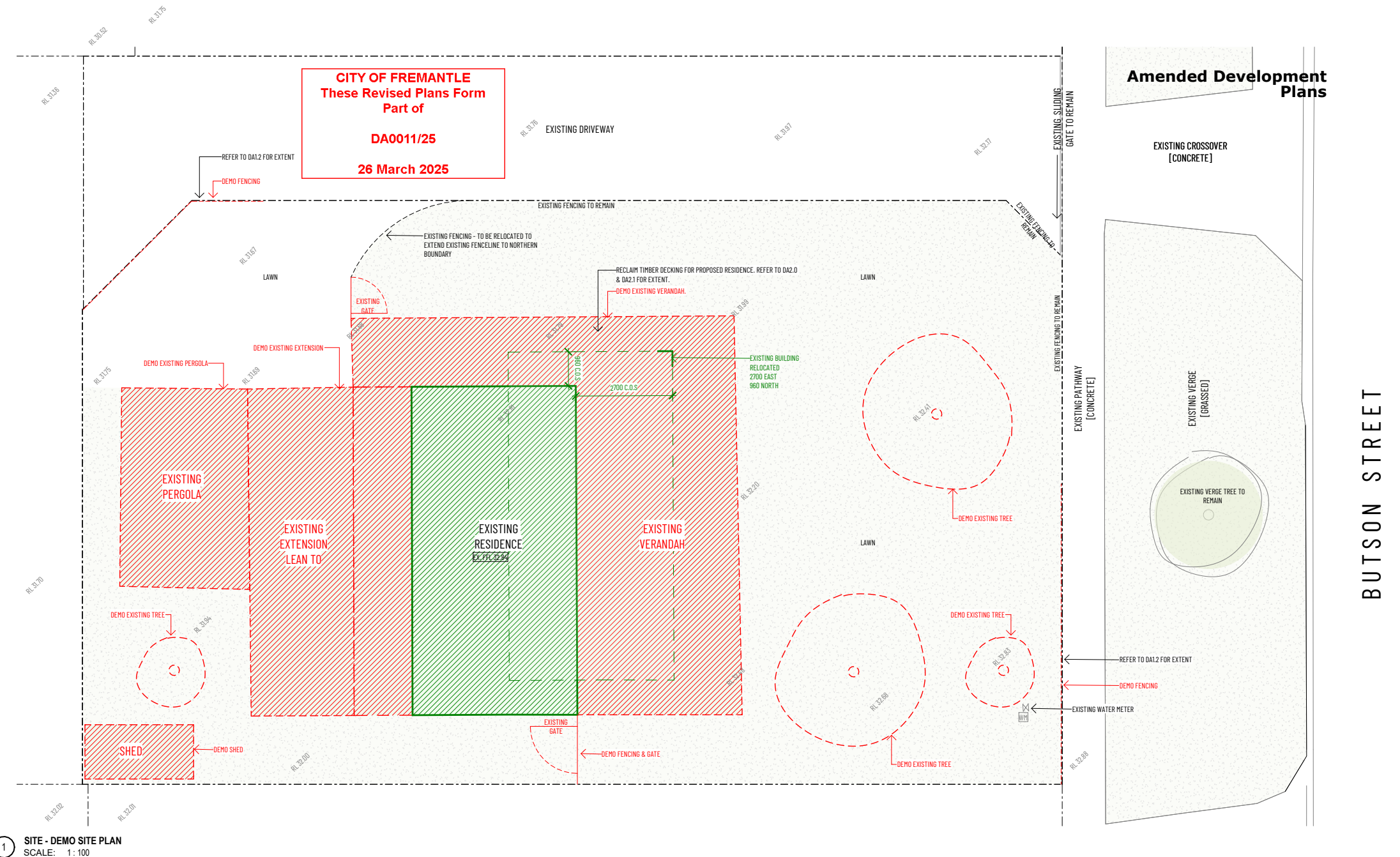
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EXISTING SITE PLAN

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1 SITE - DEMO SITE PLAN
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1	ISSUED FOR DEVELOPMENT APPROVAL - ALTERNATION & ADDITION	LD	05.08.2024
2	ISSUED FOR DEVELOPMENT APPROVAL - ALTERNATION & ADDITION, NORTH POINT	LD	26.03.2025

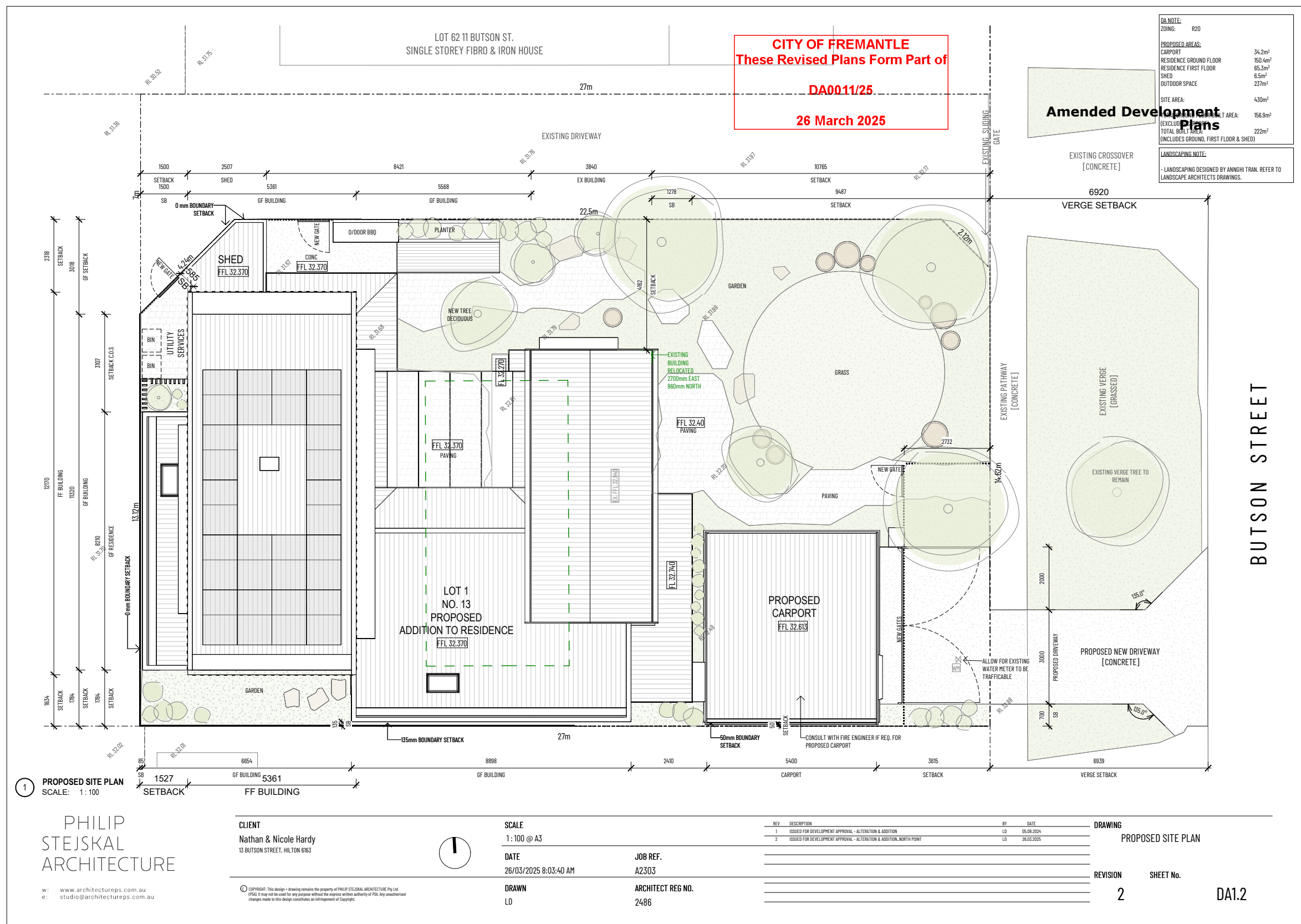
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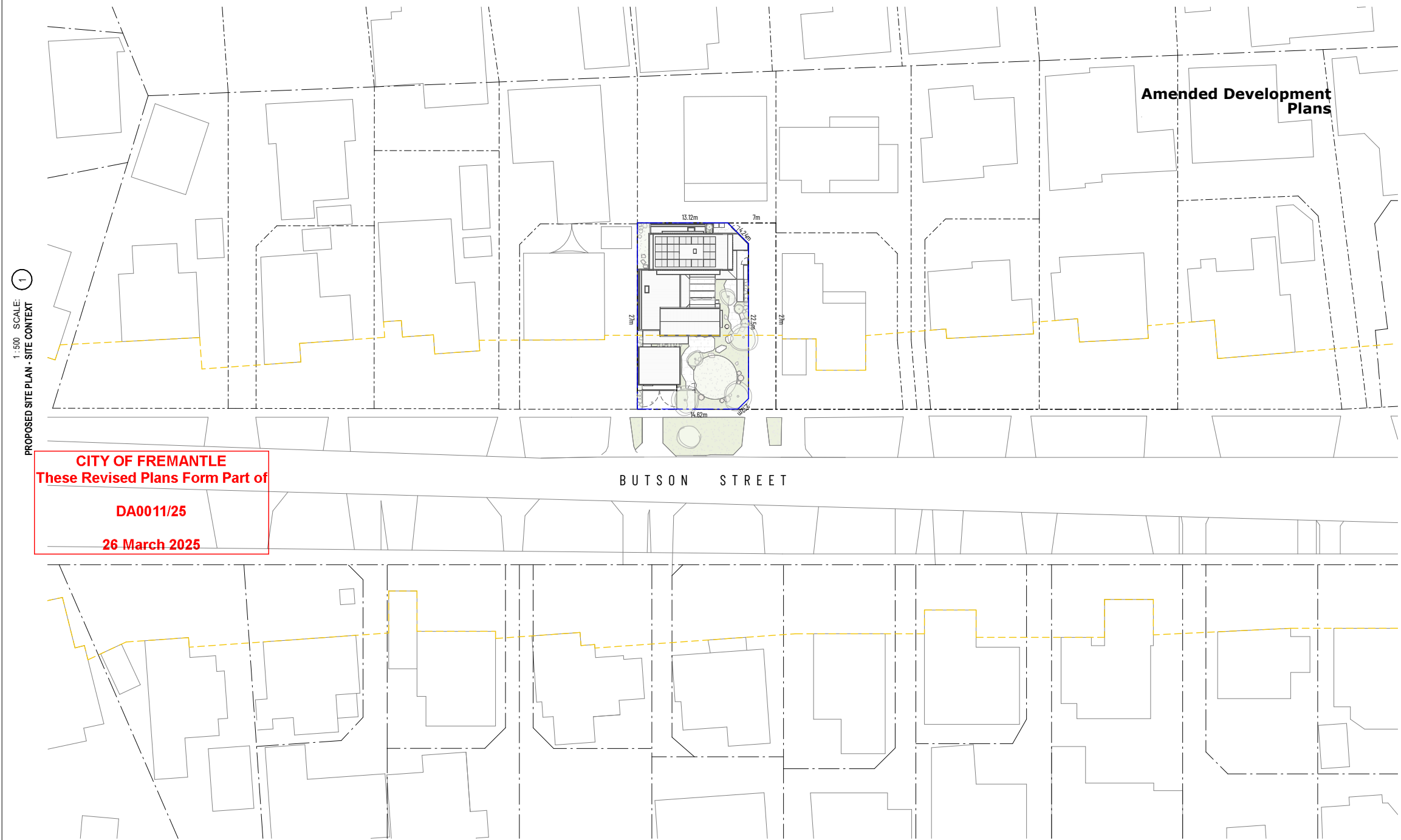
DEMO SITE PLAN

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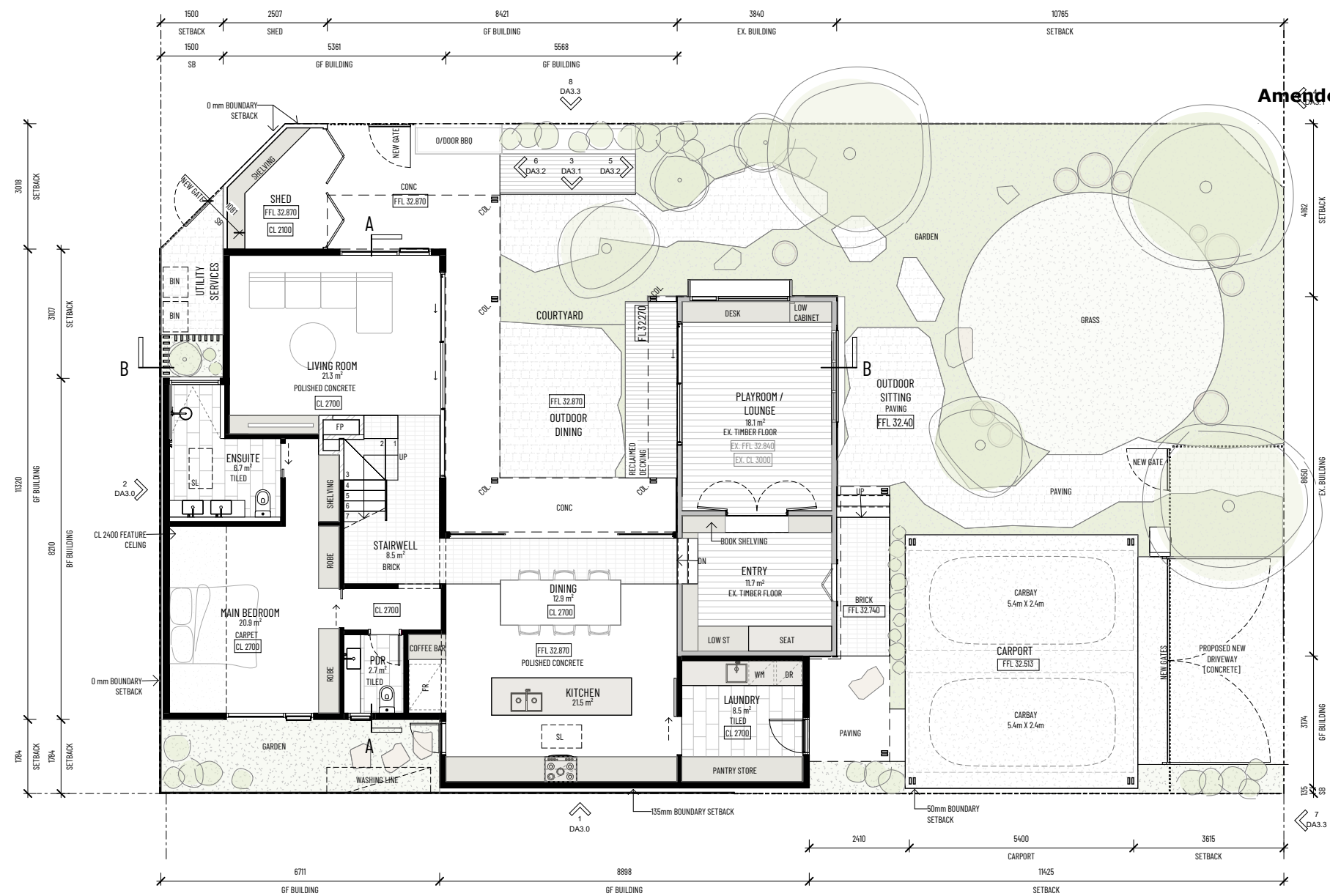
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1	ISSUED FOR DEVELOPMENT APPROVAL - ALTERNATION & ADDITION	LD	05.08.2024
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DRAWING
PROPOSED SITE PLAN WITH
NEIGHBOURS

REVISION
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1 GROUND FLOOR PLAN
SCALE: 1:100

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[illegible]

— DRAWING
— PROPOSED GROUND FLOOR PLAN

REVISION SHEET No.

2 DA2.0

SUSTAINABILITY INITIATIVES:

ALLOW FOR:

- HIGH INSULATION VALUE TO BUILDING ENVELOPE
- ENERGY EFFICIENT APPLIANCES
- WATER EFFICIENT FIXTURES & APPLIANCES
- FIRST FLOOR ACOUSTIC INSULATION
- FUTURE PV SOLAR PANELS TO MAIN ROOF
- DOUBLE GLAZING THROUGHOUT

GENERAL NOTES:

Plans

- FUTURE LANDSCAPING TO BE DESIGNED BY LANDSCAPE ARCHITECT. CURRENT LANDSCAPING INDICATIVE ONLY.

FEASIBILITY STAGE

LEGEND:

COL.	TIMBER COLUMN
FFL	FINISHED FLOOR LEVEL
FP	BRICK FIRE PLACE & CHIMNEY
RL	RELATIVE LEVEL
SL	SKY LIGHT [OPERABLE]

EXTERNAL FINISHES:

COL	PAINTED TIMBER COLUMN - WHITE FINISH
FB	FACE BRICK FINISH - LIGHT COLOUR
PFC	PAINTED FIBRE CEMENT FINISH - WITH BATTEN JOINTS TO EXISTING COTTAGE BUILDING
PFC	WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - SMOOTH
PFCT	WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - TEXTURED
PRF	WHITE ACRYLIC RENDER FINISH TO BRICKWORK - TEXTURED (TO BOUNDARY WALLS)
SP	SELECT RAVING FINISH
TC	LAPPED ROUGH SAWN VERTICAL TIMBER BOARDS - NATURAL FINISH
RTD	RECLAIMED TIMBER DECKING - NATURAL NEW GATES (PEDESTRIAN & VEHICULAR)
NG	WHITE COLE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING
TS	TIMBER SCREENING - WHITE FINISH
PPB	PAINTED PLASTERBOARD CEILING FINISH

TYPICAL FINISHES:

- FULL HEIGHT WALL TILES TO WET AREAS
- PAINT FINISH TO WALLS [UNLESS OTHERWISE NOTED]
- FLAT CEILINGS THROUGHOUT [UNLESS OTHERWISE NOTED]
- FLOOR FINISHES AS NOTED
- BRICK FIRE PLACE WITH BRICK CHIMNEY
- ZINCALUME FOR DOWNPIPPES & ROOFING
- CARPORT & VERANDAH FASCIAS: ZINCALUME METAL PRESSINGS

TYPICAL CONSTRUCTION:

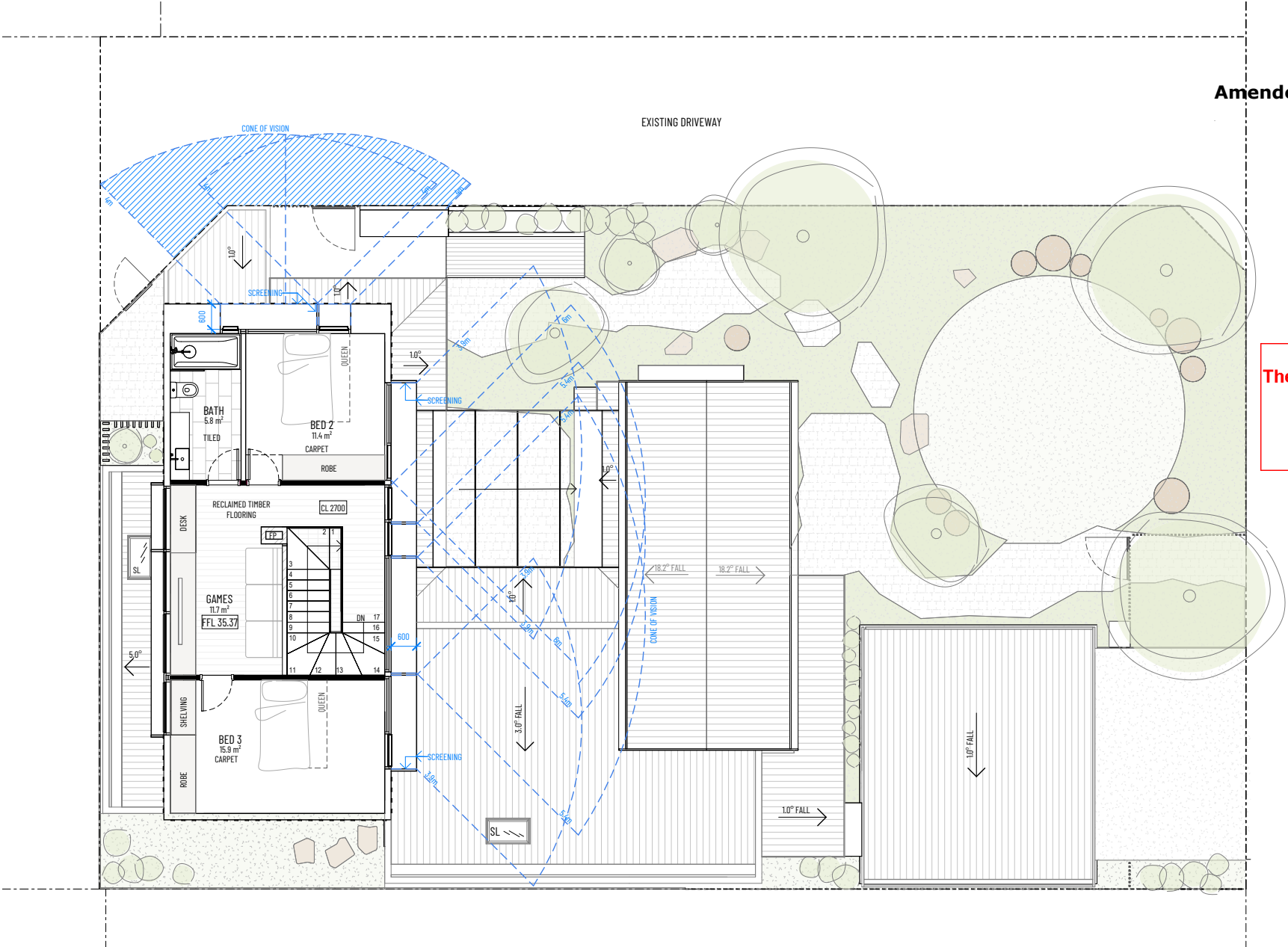
- BRICK VENEER TO BOUNDARY WALLS WITH PAINTED FINISH [90 BRICK / 20 CAVITY / 90 TIMBER FRAME]
- TIMBER FRAMING THROUGHOUT (UNLESS OTHERWISE NOTED)
- SUSPENDED TIMBER FRAMED FLOOR FOR FIRST FLOOR
- PROVISIONAL SUM. FOR ALL INTERNAL CABINETRY & OUTDOOR DINING RETRACTABLE SHADING.
- ALLOW FOR STAIRS, BALUSTADING & HAND RAIL TO INTERNAL STAIRWELL

NOTE:

- EXISTING FENCING TO REMAIN. EXTENT OF EXISTING FENCING, REFER TO SITE PLAN.
- ALLOW FOR NEW WHITE CLOSE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING & LETTER BOX. REFER TO SITE PLAN FOR LOCATIONS. FENCING TO BE A MIN. OF 50% PERMEABILITY.
- ALLOW FOR RECLAIMED TIMBER FROM EXISTING DECKING & DEMOLISHED EXTENSIONS TO THE COTTAGE TO BE REUSED FOR PROPOSED BUILDING. REFER TO FLOORPLANS TO EXTENT OF RECLAIMED TIMBER LOCATIONS.

SUSTAINABILITY INITIATIVES:
ALLOW FOR:
- HIGH INSULATION VALUE TO BUILDING ENVELOPE
- ENERGY EFFICIENT APPLIANCES
- WATER EFFICIENT FIXTURES & APPLIANCES
- FIRST FLOOR ACOUSTIC INSULATION
- FUTURE PV SOLAR PANELS TO MAIN ROOF
- DOUBLE GLAZING THROUGHOUT
DESIGN NOTE:
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1 FIRST FLOOR PLAN
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DRAWING
PROPOSED FIRST FLOOR PLAN -
OVERLOOKING DIAGRAM

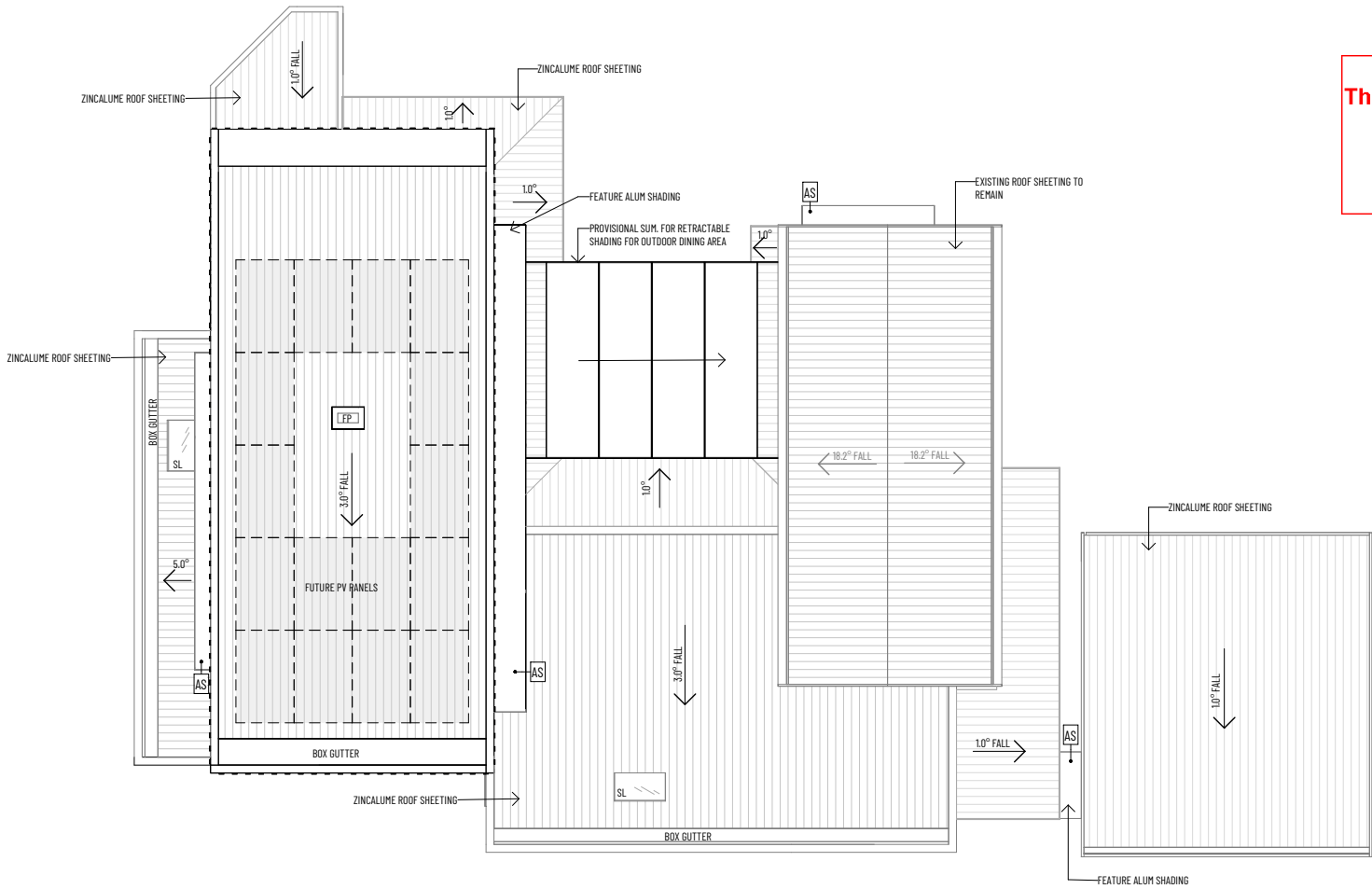
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SUSTAINABILITY INITIATIVES:
ALLOW FOR:
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- WATER EFFICIENT FIXTURES & APPLIANCES
- FIRST FLOOR ACOUSTIC INSULATION
- FUTURE PV SOLAR PANELS TO MAIN ROOF
- DOUBLE GLAZING THROUGHOUT

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1 ROOF PLAN
SCALE: 1:100

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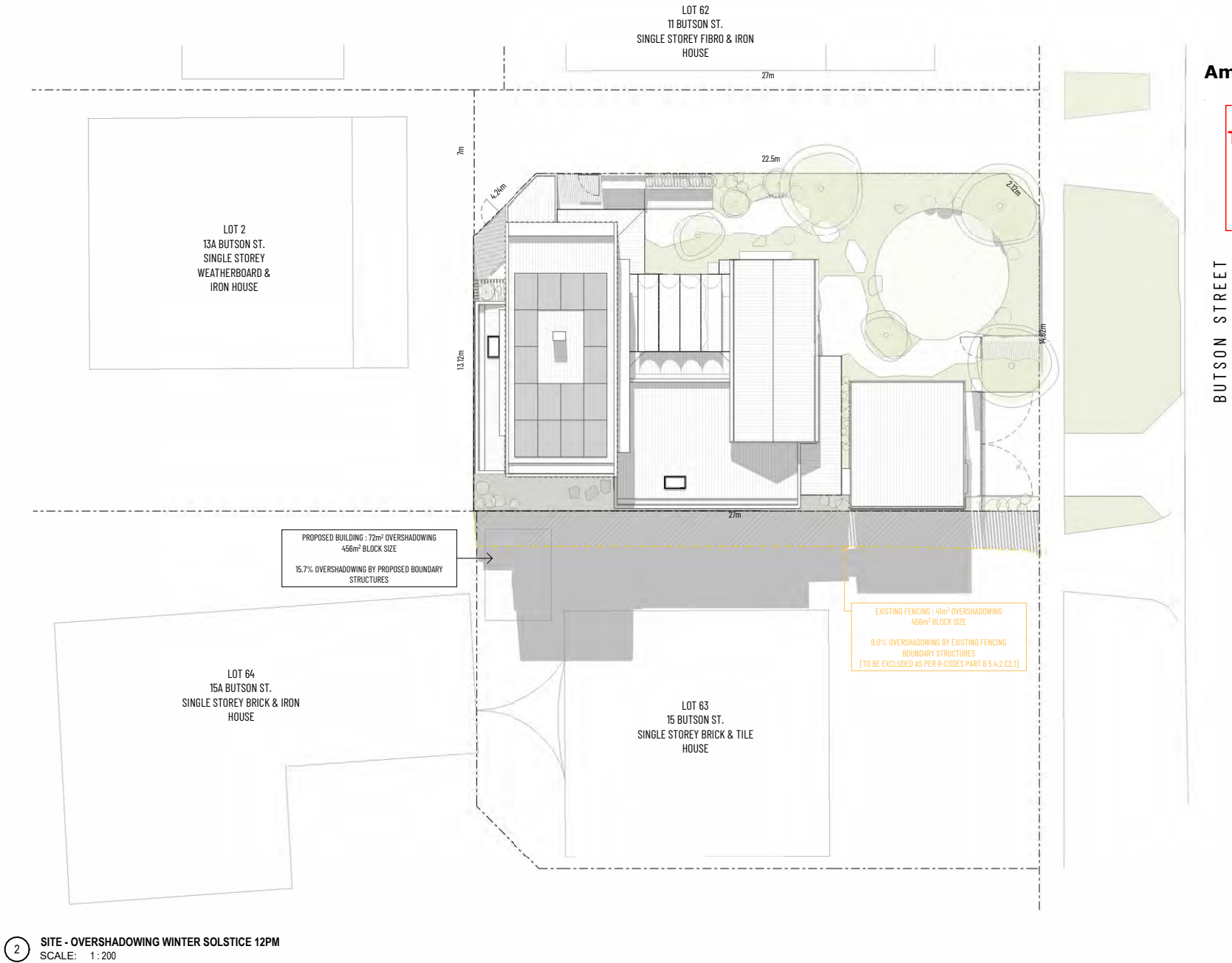
DRAWING
PROPOSED ROOF PLAN

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Amended Development
Plans

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2 SITE - OVERSHADOWING WINTER SOLSTICE 12PM
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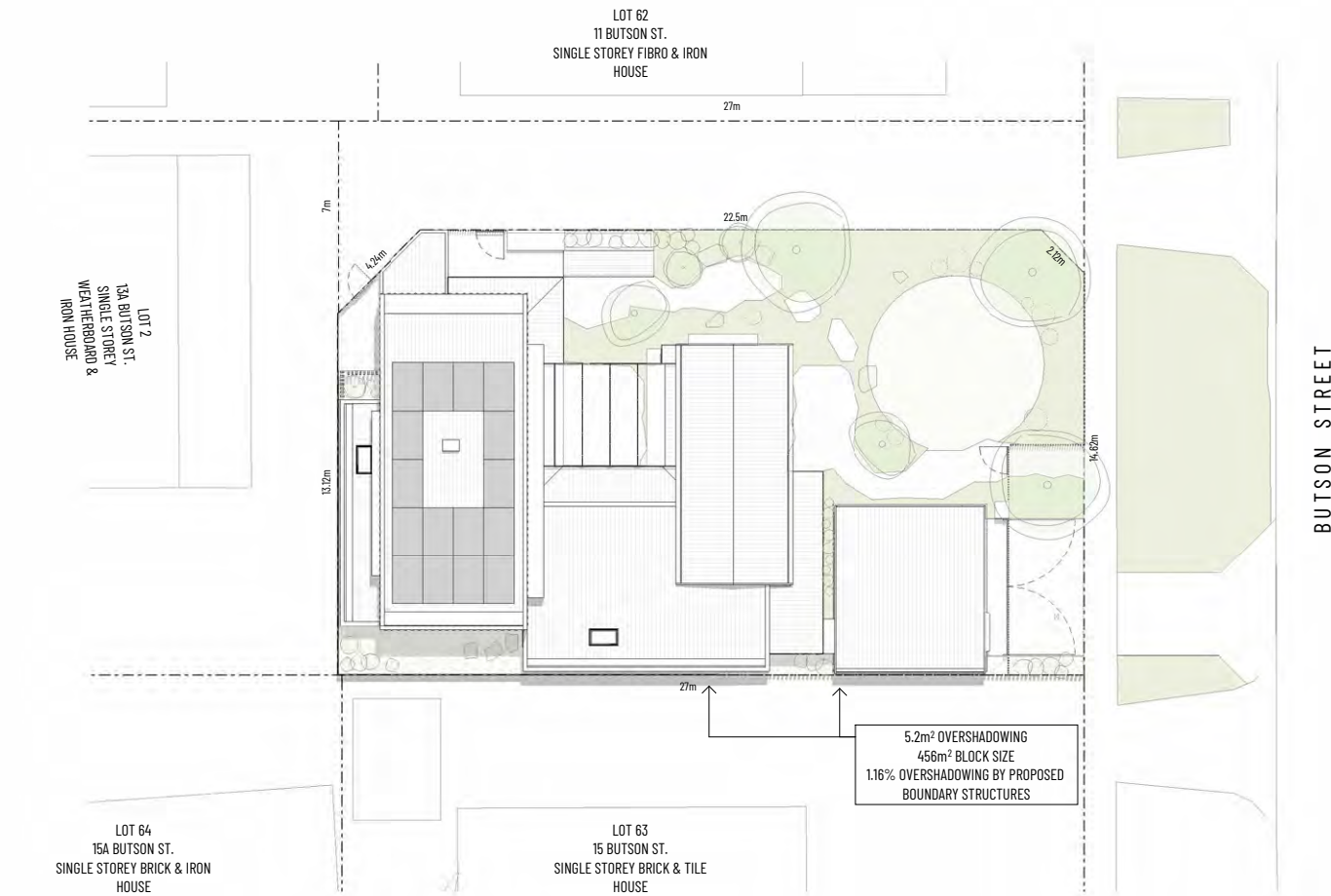
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2	ISSUED FOR DEVELOPMENT APPROVAL - ALTERATION & ADDITION, NORTH POINT	LD	26.03.2025

DRAWING
OVERSHADOWING PLAN - WINTER
SOLSTICE

REVISION SHEET No.

2

DA2.4



2 SITE - OVERSHADOWING SUMMER SOLSTICE 12PM
SCALE: 1 : 200

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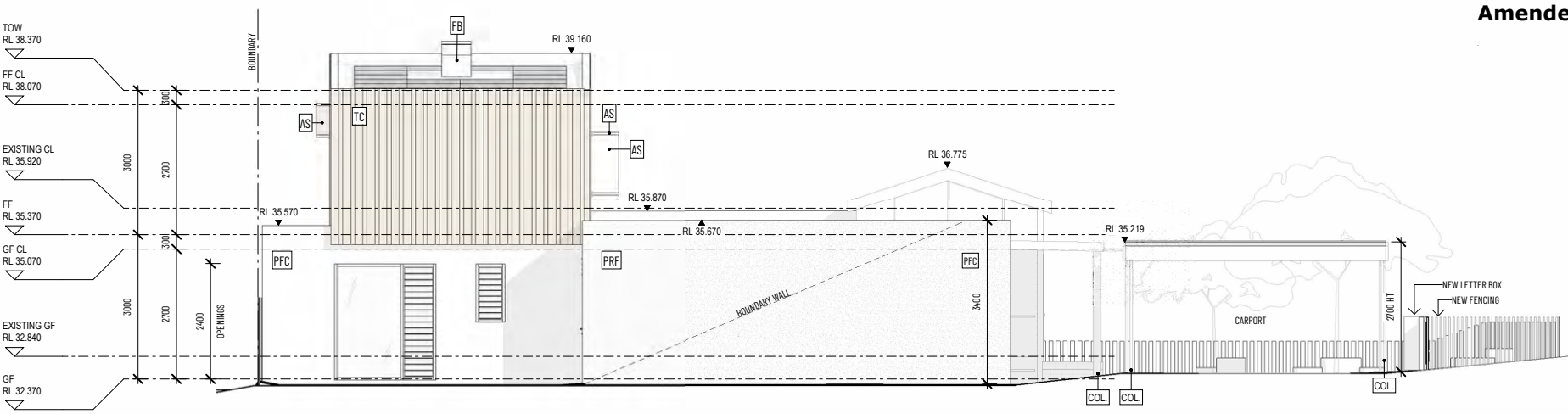
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OVERSHADOWING PLAN - SUMMER
SOLSTICE

REVISION SHEET No.

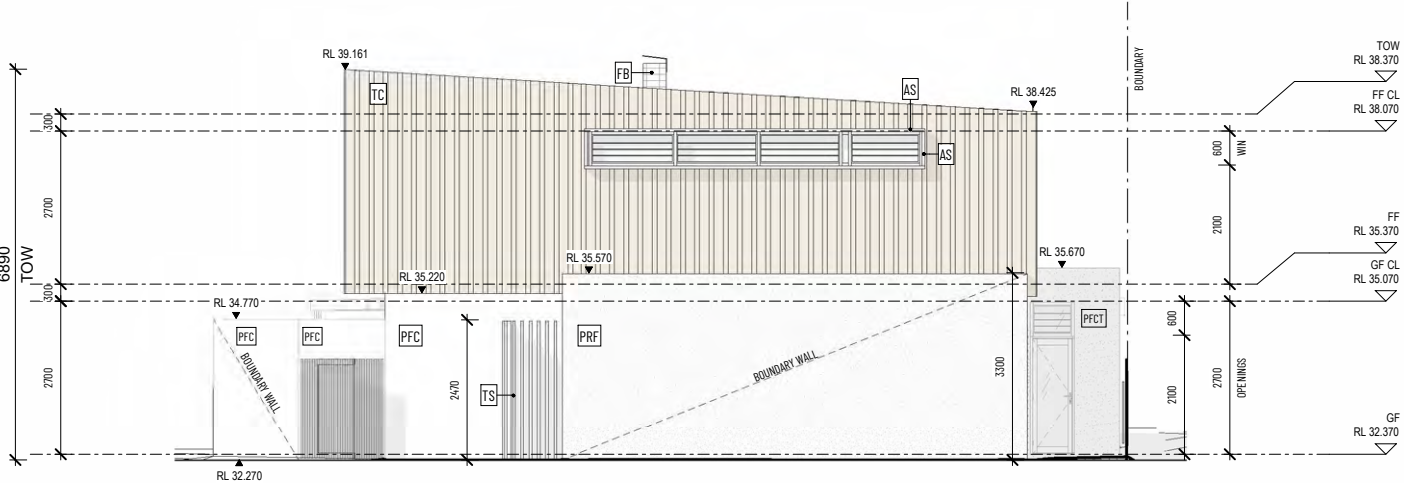
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1 ELEVATION 01 - SOUTH
SCALE: 1:100



2 ELEVATION 02 - WEST
SCALE: 1:100

Amended Development Plans

FEASIBILITY STAGE

LEGEND:

COL TIMBER COLUMN
FFL FINISHED FLOOR LEVEL
FP BRICK FIRE PLACE & CHIMNEY
RL RELATIVE LEVEL

EXTERNAL FINISHES:

SHADING
PFC WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - SMOOTH
PFCT WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - TEXTURED
PRF WHITE ACRYLIC RENDER FINISH TO BRICKWORK - TEXTURED
(TO BOUNDARY WALLS)
SP SELECTED PAVING FINISH
TC LAPPED ROUGH SAUN VERTICAL TIMBER BOARDS - NATURAL FINISH
RTD RECLAIMED TIMBER DECKING - NATURAL
NF NEW FENCING - WHITE CLOSE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING
NG NEW GATES (PEDESTRIAN & VEHICULAR) - WHITE CLOSE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING
TS TIMBER SCREENING - WHITE FINISH

INTERNAL FINISHES:

PPB PAINTED PLASTERBOARD CEILING FINISH

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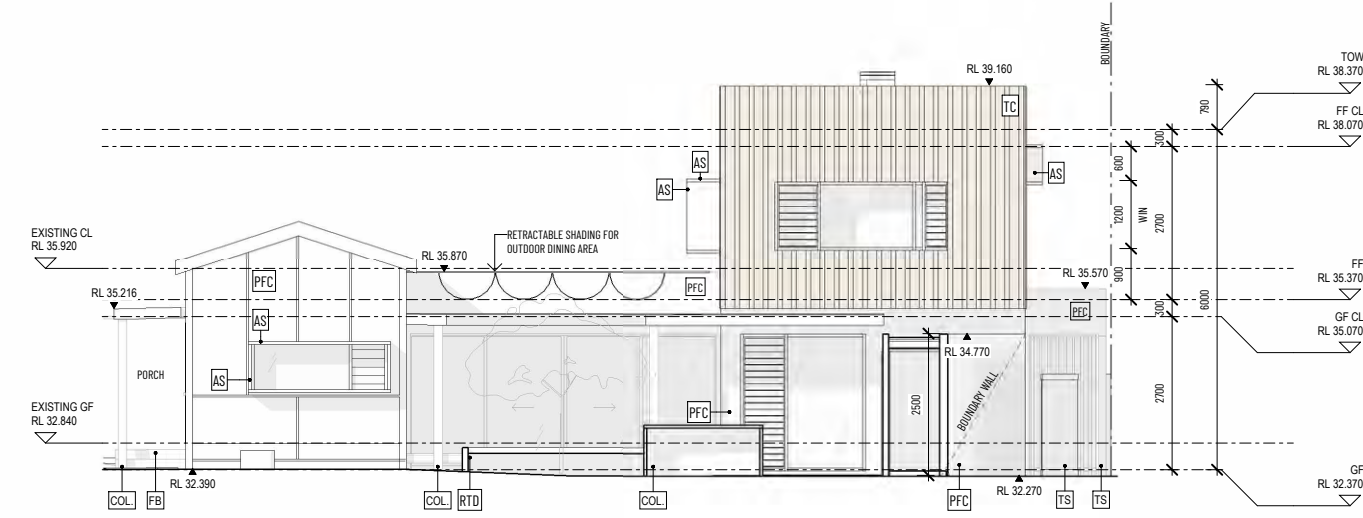
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ELEVATIONS

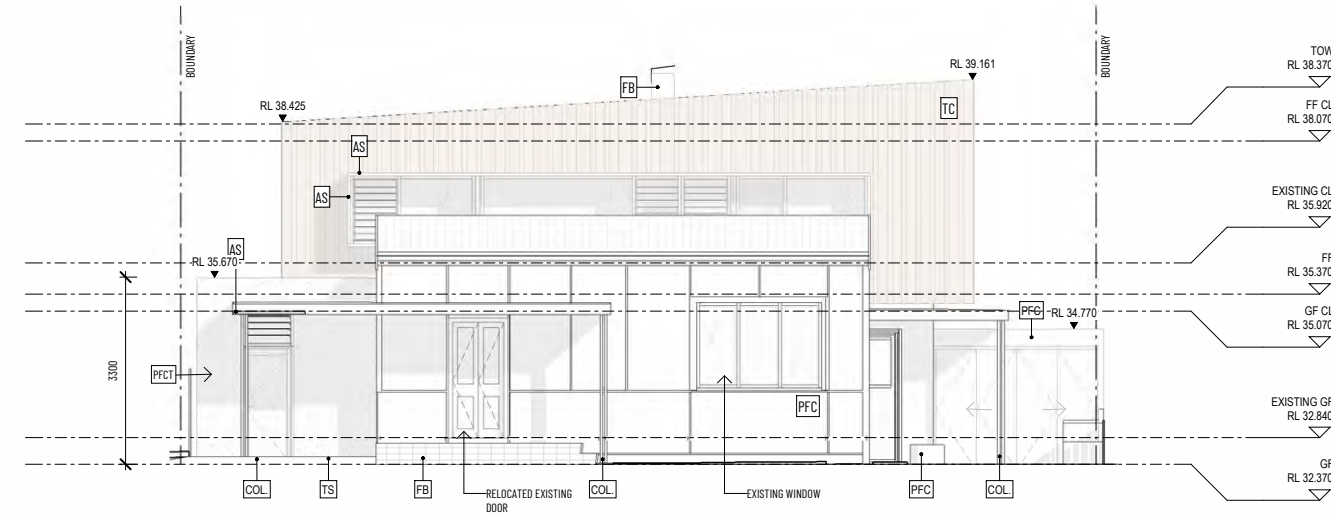
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3 ELEVATION 03 - NORTH
SCALE: 1:100



4 ELEVATION 04 - EAST
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ELEVATIONS

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Amended Development Plans

FEASIBILITY STAGE

LEGEND:

COL	TIMBER COLUMN
FFL	FINISHED FLOOR LEVEL
FP	BRICK FIRE PLACE & CHIMNEY
RL	RELATIVE LEVEL

EXTERNAL FINISHES:

COL	PAINTED TIMBER COLUMN - WHITE FINISH
FB	PAINTED FIBRE CEMENT FINISH - LIGHT COLOUR
PFC	PAINTED FIBRE CEMENT FINISH - WITH BATTEN JOINTS TO EXISTING COTTAGE BUILDING
PFC	WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - SMOOTH
PFC	WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - TEXTURED
PRF	WHITE ACRYLIC RENDER FINISH TO BRICKWORK - TEXTURED (TO BOUNDARY WALLS)
SP	SELECTED PAVING FINISH
TC	LAPPED ROUGH SAWN VERTICAL TIMBER BOARDS - NATURAL FINISH
RTD	RECLAIMED TIMBER DECKING - NATURAL
NF	NEW FENCING - WHITE CLOSE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING
NG	NEW GATES (PEDESTRIAN & VEHICULAR) - WHITE CLOSE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING
TS	TIMBER SCREENING - WHITE FINISH

INTERNAL FINISHES:

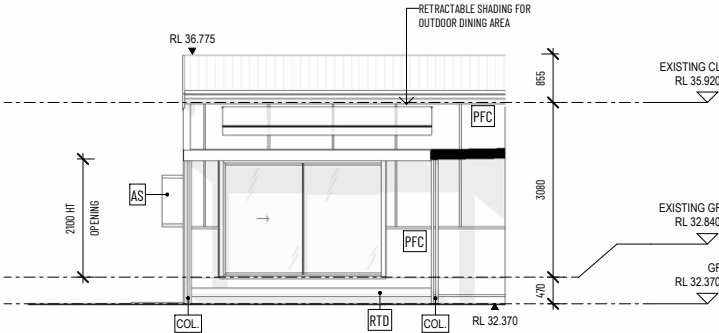
PPB	PAINTED PLASTERBOARD CEILING FINISH
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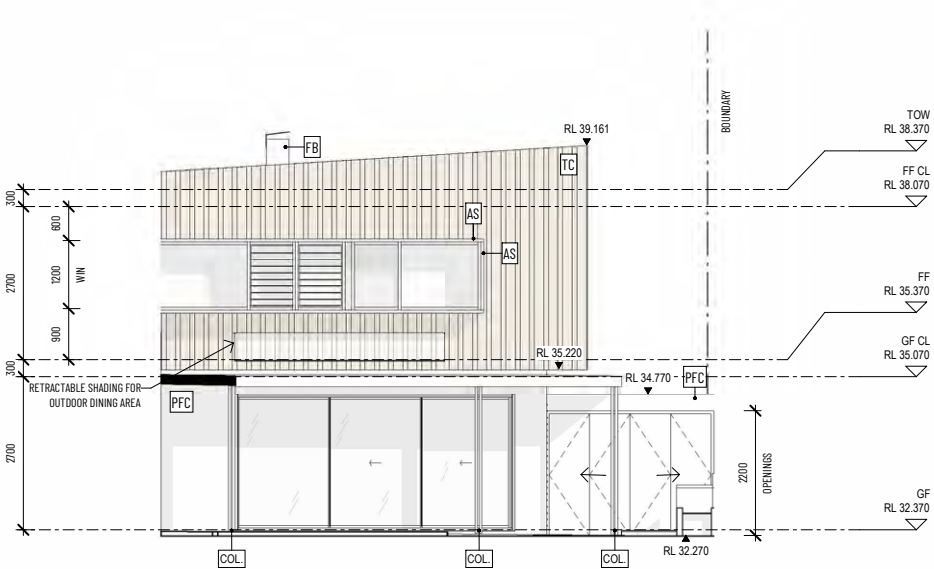
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Amended Development
Plans

- FEASIBILITY STAGE
- LEGEND:
- COL TIMBER COLUMN
FFL FINISHED FLOOR LEVEL
FP BRICK FIRE PLACE & CHIMNEY
RL RELATIVE LEVEL
- EXTERNAL FINISHES:
- COL PAINTED TIMBER COLUMN - WHITE FINISH
FB PAINTED FIRE FINISH - LIGHT COLOUR
PFC PAINTED FIBRE CEMENT FINISH - WITH
BATTEN JOINTS TO EXISTING COTTAGE
BUILDING
PFC WHITE ACRYLIC RENDER FINISH ON
'BLUE BOARD' - SMOOTH
PFC WHITE ACRYLIC RENDER FINISH ON
'BLUE BOARD' - TEXTURED
PRF WHITE ACRYLIC RENDER FINISH TO
BRICKWORK - TEXTURED
SP SELECTED PAVING FINISH
TC LAPPED ROUGH SAWN VERTICAL TIMBER
BOARDS - NATURAL FINISH
RTD RECLAIMED TIMBER DECKING - NATURAL
NF NEW FENCING - WHITE CLOSE VERTICAL
BATTENS AS MODERN INTERPRETATION OF
HERITAGE FENCING
NG NEW GATES (PEDESTRIAN & VEHICULAR)
- WHITE CLOSE VERTICAL BATTENS AS
MODERN INTERPRETATION OF HERITAGE
FENCING
TS TIMBER SCREENING - WHITE FINISH
- INTERNAL FINISHES:
- PPB PAINTED PLASTERBOARD CEILING FINISH



5 ELEVATION 06 - EAST
SCALE: 1:100



6 ELEVATION 05 - WEST
SCALE: 1:100

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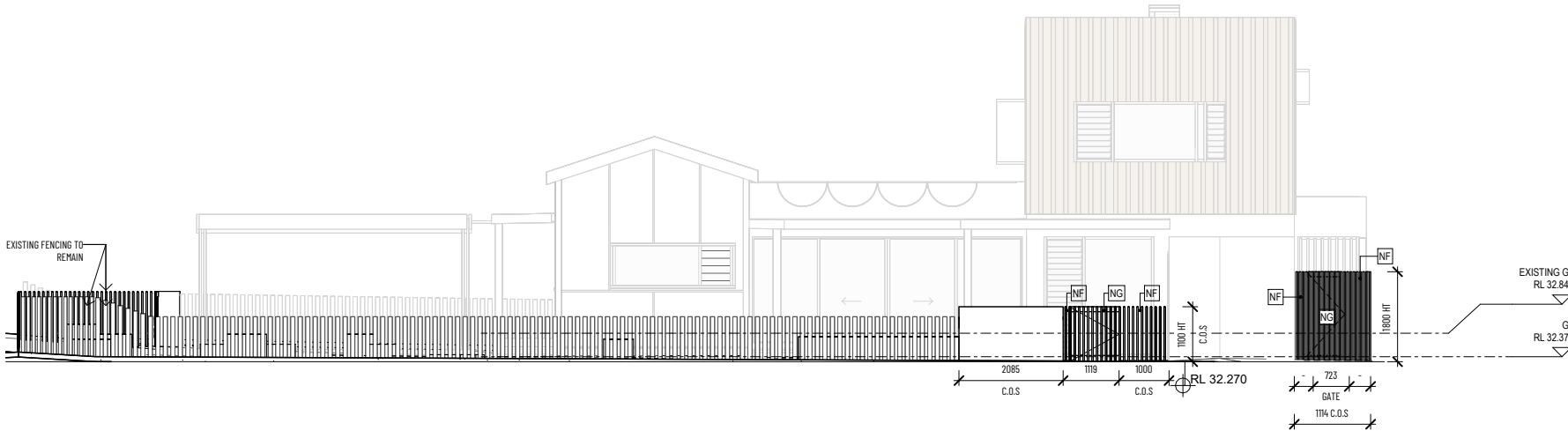
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7 ELEVATION 07 - EAST FENCE
SCALE: 1:100



8 ELEVATION 08 - NORTH FENCE
SCALE: 1:100

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ELEVATIONS - FENCING

REVISION
1

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FEASIBILITY STAGE	
LEGEND:	
COL	TIMBER COLUMN
FEL	FINISHED FLOOR LEVEL
FP	BRICK FIRE PLACE & CHIMNEY
RL	RELATIVE LEVEL
EXTERNAL FINISHES:	
COL	PAINTED TIMBER COLUMN - WHITE FINISH
FB	PAINTED FIBRE CEMENT FINISH - LIGHT COLOUR
PPC	PAINTED FIBRE CEMENT FINISH - WITH BATTEN JOINTS TO EXISTING COTTAGE BUILDING
PPC	WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - SMOOTH
PPCT	WHITE ACRYLIC RENDER FINISH ON 'BLUE BOARD' - TEXTURED
PRF	WHITE ACRYLIC RENDER FINISH TO BRICKWORK - TEXTURED (TO BOUNDARY WALLS)
SP	SELECTED PAVING FINISH
TC	LAPPED ROUGH SAWN VERTICAL TIMBER BOARDS - NATURAL FINISH
RTD	RECLAIMED TIMBER DECKING - NATURAL
NF	NEW FENCING - WHITE CLOSE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING
NG	NEW GATES (PEDESTRIAN & VEHICULAR) - WHITE CLOSE VERTICAL BATTENS AS MODERN INTERPRETATION OF HERITAGE FENCING
TS	TIMBER SCREENING - WHITE FINISH
INTERNAL FINISHES:	
PPB	PAINTED PLASTERBOARD CEILING FINISH



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DRAWING
PROPOSED BUILDING PERSPECTIVES

SHEET No.

1

DA4.0



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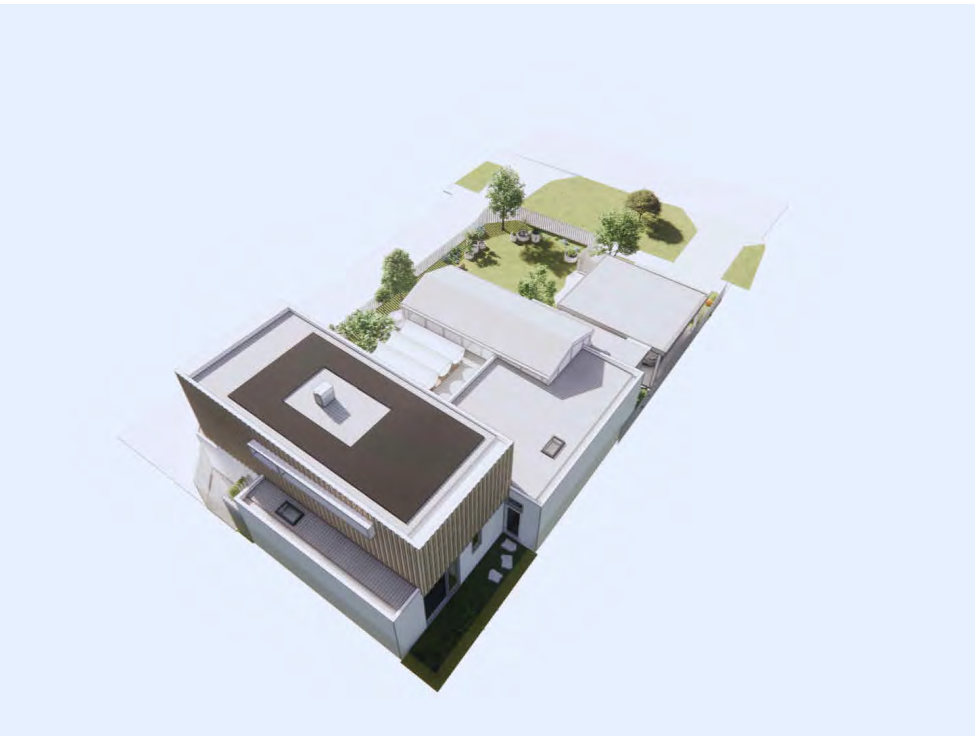
REV	DESCRIPTION	BY	DATE
1	ISSUED FOR DEVELOPMENT APPROVAL - ALTERATION & ADDITION	LD	05.08.2024

DRAWING
PROPOSED BUILDING PERSPECTIVES

REVISION
1

SHEET No.

DA4.1



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15 BUTSON STREET, HILTON 6163

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26/03/2025 8:03:48 AM

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JOB REF.
A2303

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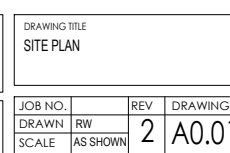
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DA4.2

The site plan illustrates the layout of Lot 13 and Lot 15. Lot 13, a Timber & Iron Residence, has a floor level of 10.78 and a P7753. Lot 15, another Timber & Iron Residence, has a P1153 and a finished floor level (FFL) of 16.70. The plan shows the existing ground surface with spot elevations and the proposed ground floor extent. Key features include a proposed carport on Lot 13, a sewer line, and various boundary lines for natural ground and existing structures. Annotations specify the extent of proposed ground floor (111m2), upper floor (104m2), and existing structures to be demolished. The plan also shows Lot 14 and Lot 16, which are partially visible.

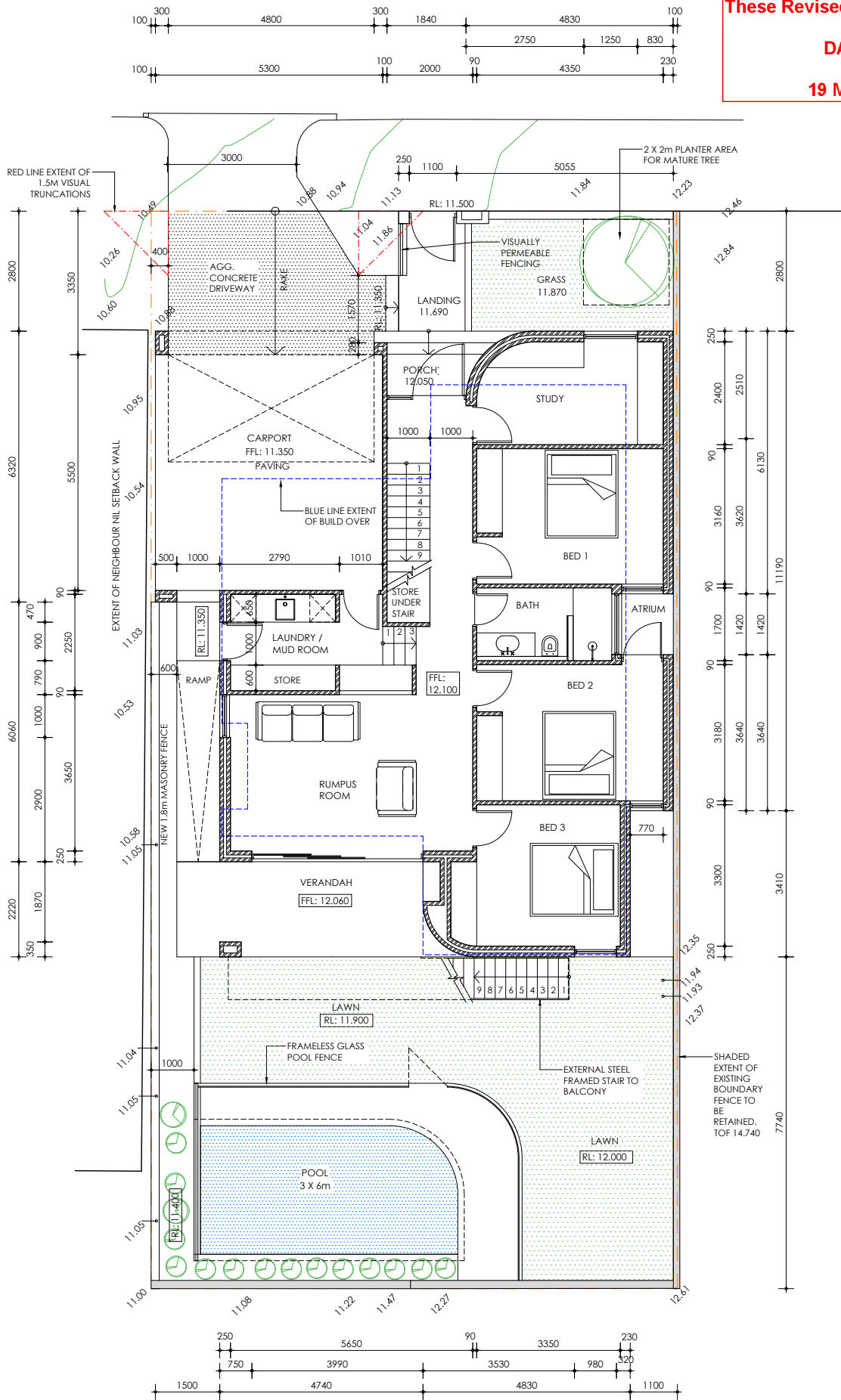
SITE AREA:	308m2	
GROUND FLOOR:	111m2	
CARPORT:	30m2	
UPPER FLOOR:	104m2	
OPEN SPACE:	167m2	54.2%



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01 GROUND FLOOR PLAN
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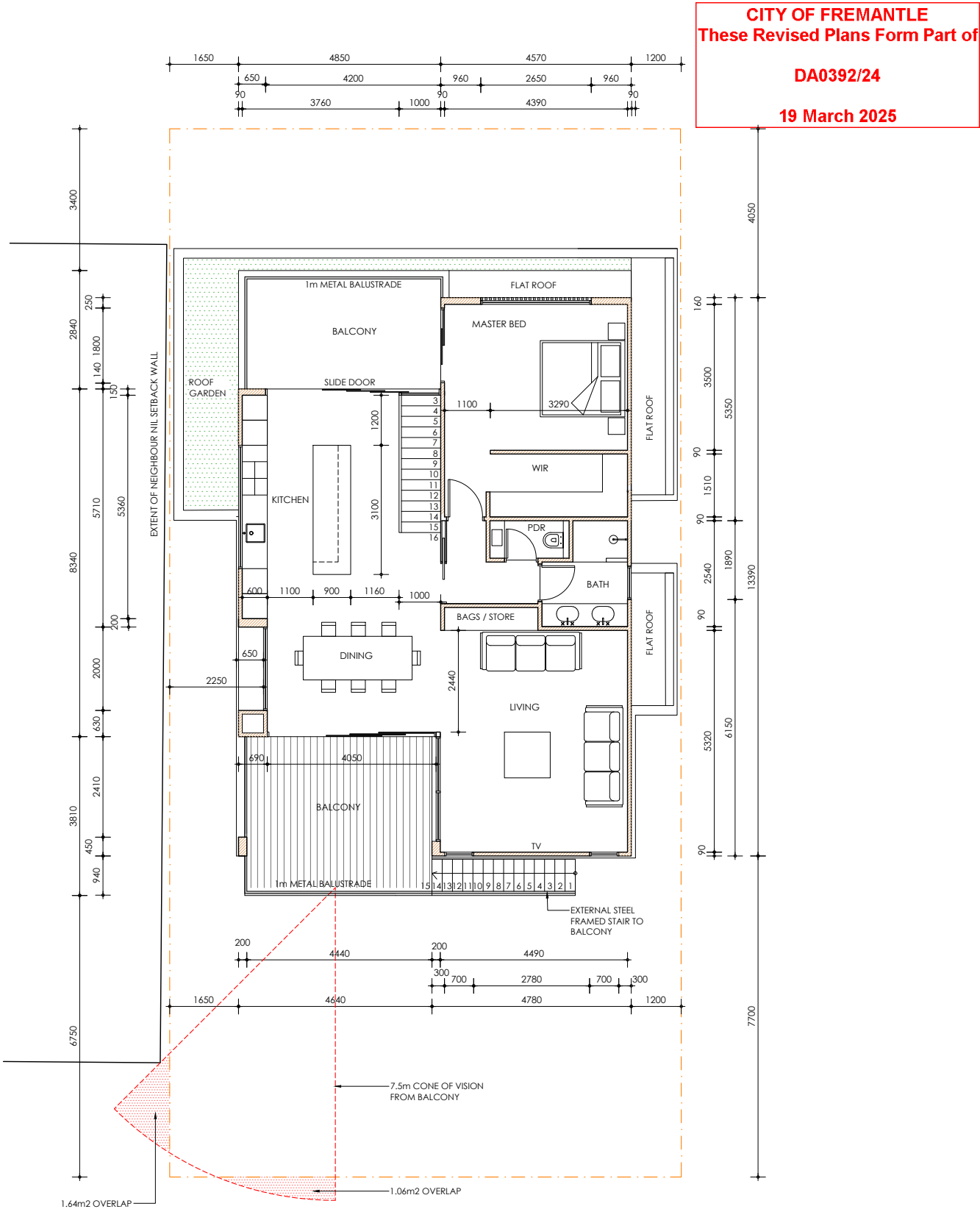
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DRAWING TITLE			
GROUND FLOOR PLAN			
JOB NO.		REV	DRAWING
DRAWN	RW	2	A1.01
SCALE	AS SHOWN		



01 UPPER FLOOR PLAN
SAMPSON
SCALE 1:100 @ A3

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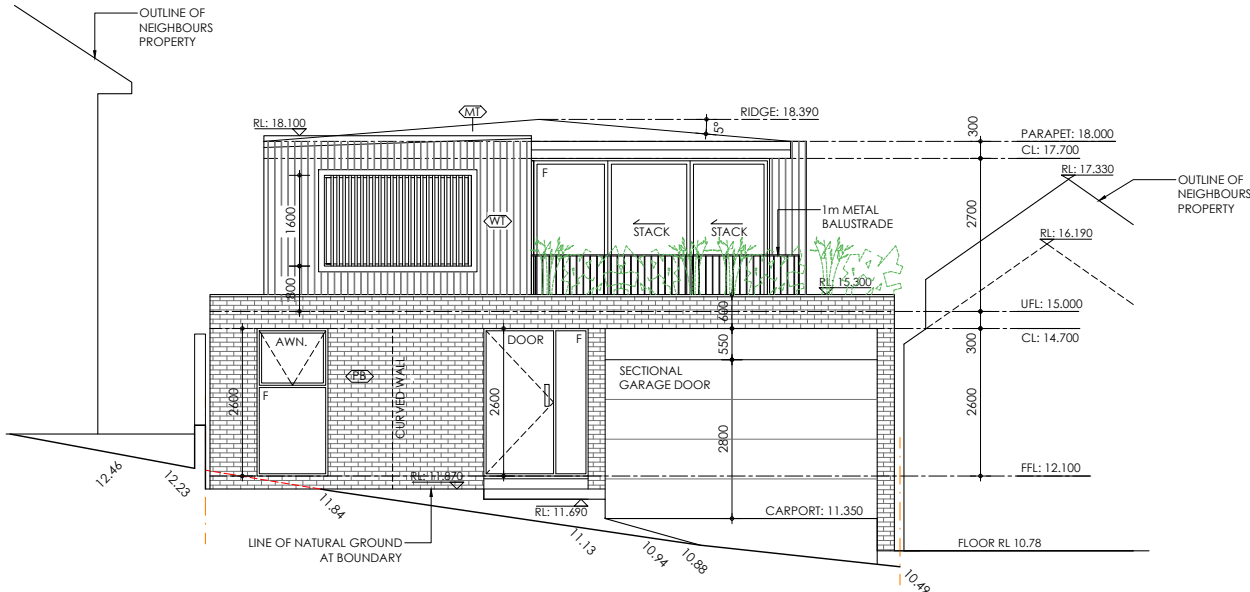
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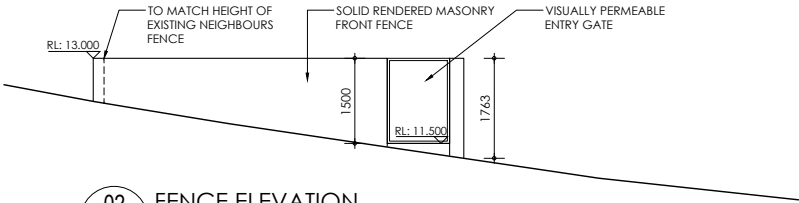
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DRAWN SCALE	RW AS SHOWN	2	A1.02

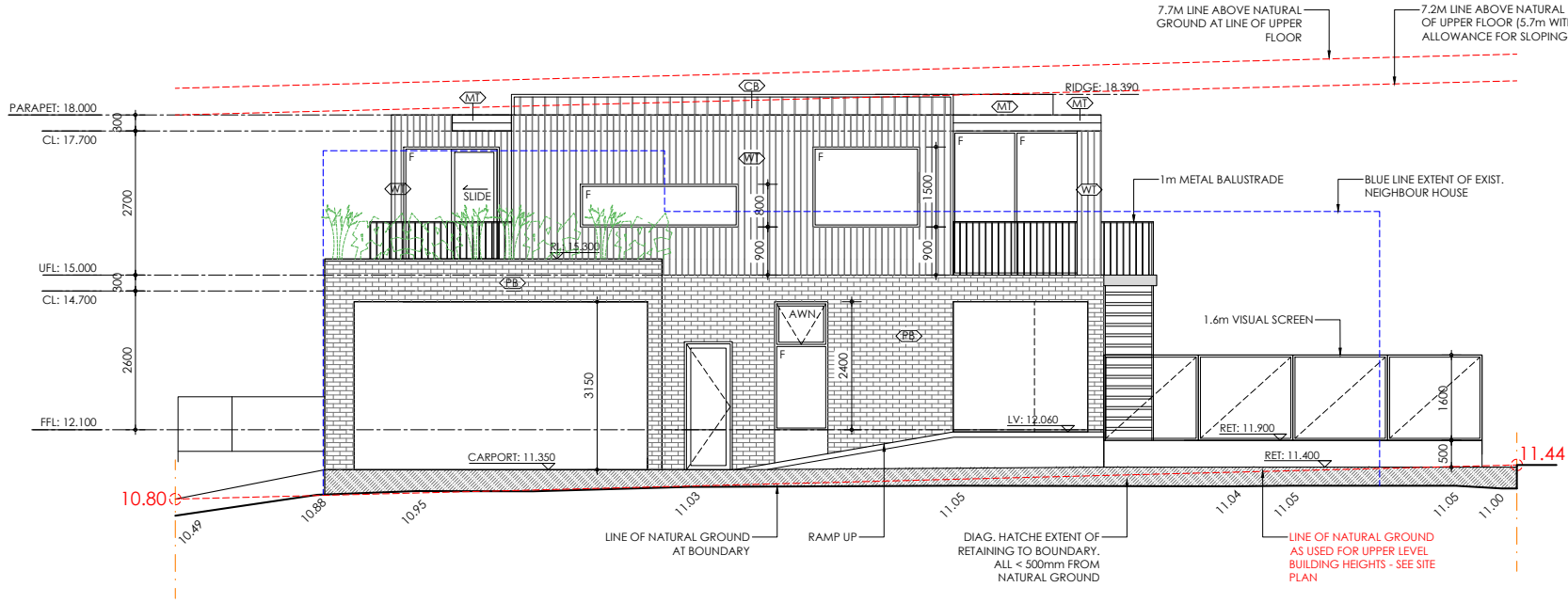
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01 NORTH (STREET) ELEVATION
SCALE 1:100 @ A3



02 FENCE ELEVATION
SCALE 1:100 @ A3



02 WEST ELEVATION
SCALE 1:100 @ A3

- FINISHES
- WT WEATHERTEX VERTICAL CLADDING
 - CB COLORBOND ROOF SHEETING, COLORBOND GUTTERS, FASCIAS, AND DOWNPIPES
 - MT COLORBOND FLASHING
 - PB WHITE PAINTED BRICKWORK

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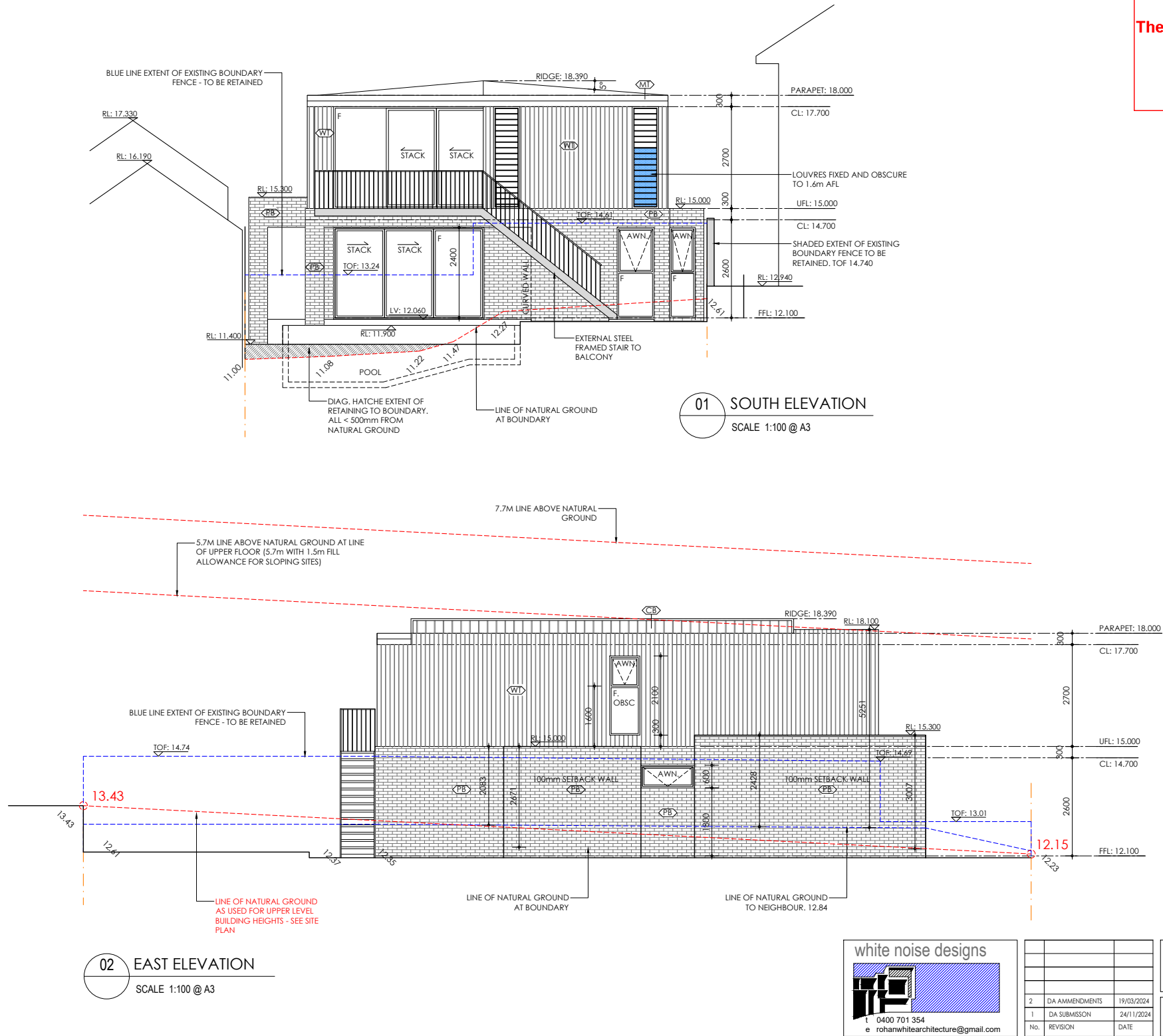
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DRAWING TITLE ELEVATIONS 1			
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DRAWN SCALE	RW AS SHOWN	2	A2.01

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<u>AREAS</u>	
SITE AREA:	308m2
GROUND FLOOR:	111m2
CARPORT:	30m2
UPPER FLOOR:	104m2
OPEN SPACE:	167m2 54.2%

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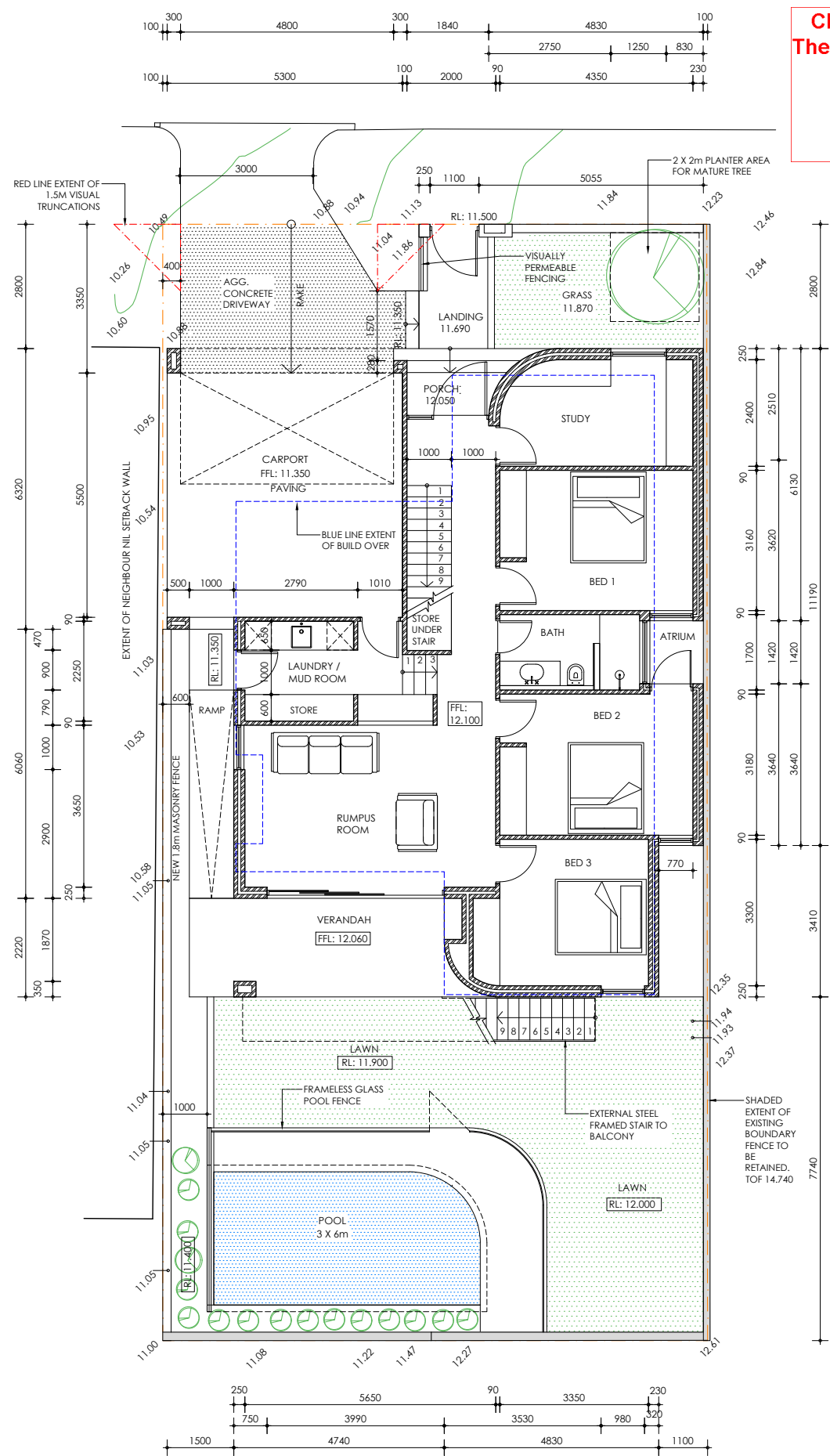


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DRAWING TITLE			
SITE PLAN			
JOB NO.		REV	DRAWING
DRAWN	RW	1	A0.01
SCALE	AS SHOWN		



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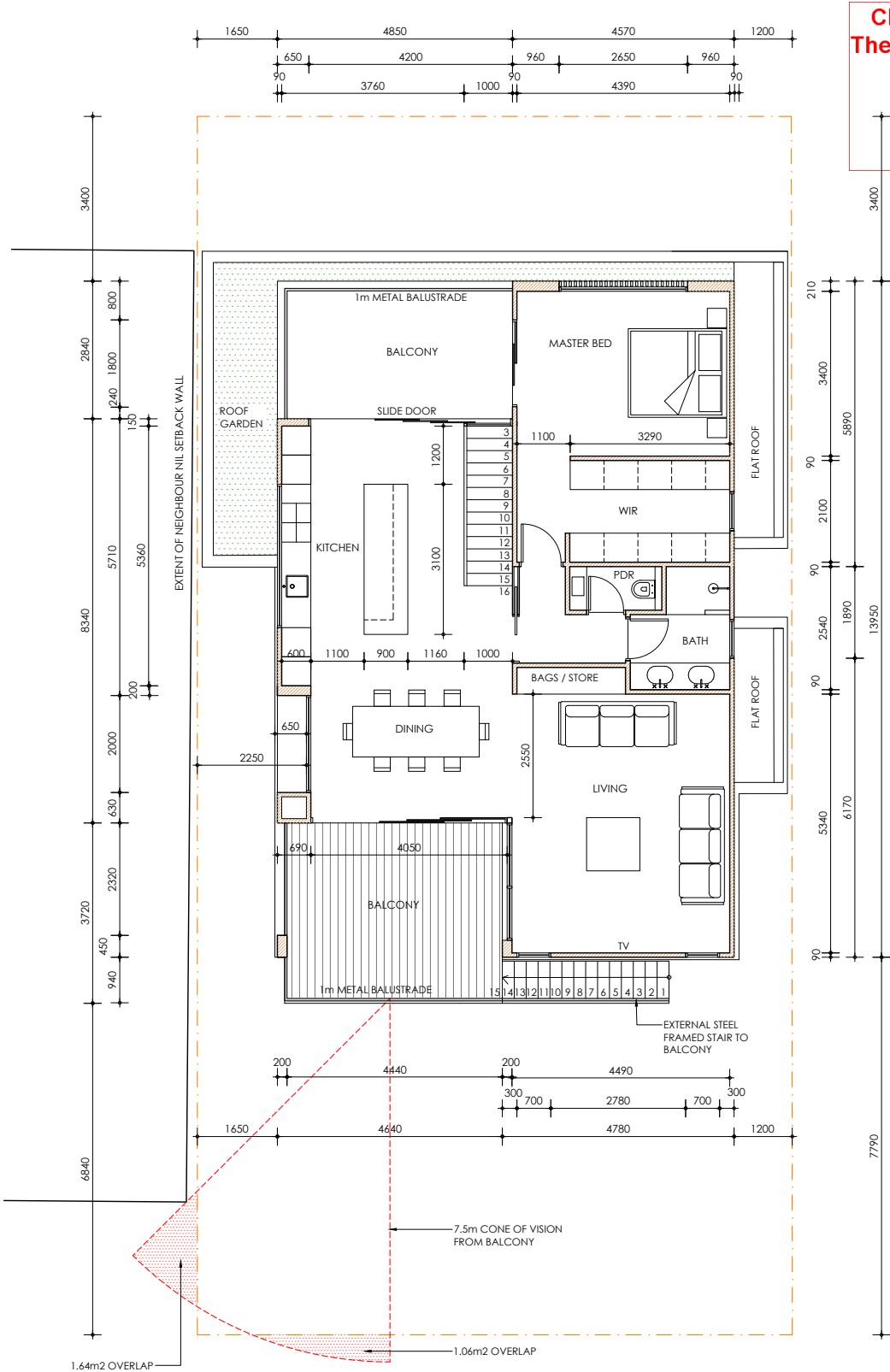
01 GROUND FLOOR PLAN
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DRAWING TITLE	GROUND FLOOR PLAN		
JOB NO.	REV	DRAWING	
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SCALE	AS SHOWN		



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01 UPPER FLOOR PLAN
SAMPSON
SCALE 1:100 @ A3

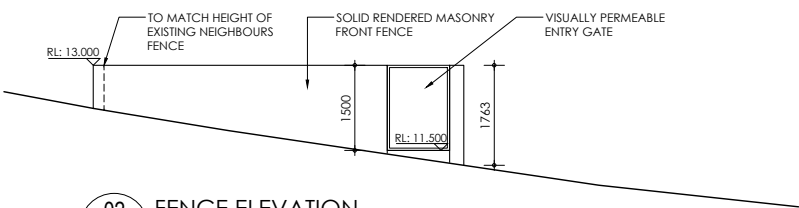
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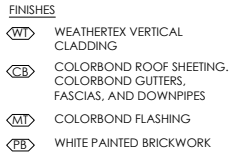
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DRAWING TITLE UPPER FLOOR PLAN			
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02 FENCE ELEVATION
SCALE 1:100 @ A3



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No.	REVISION	DATE

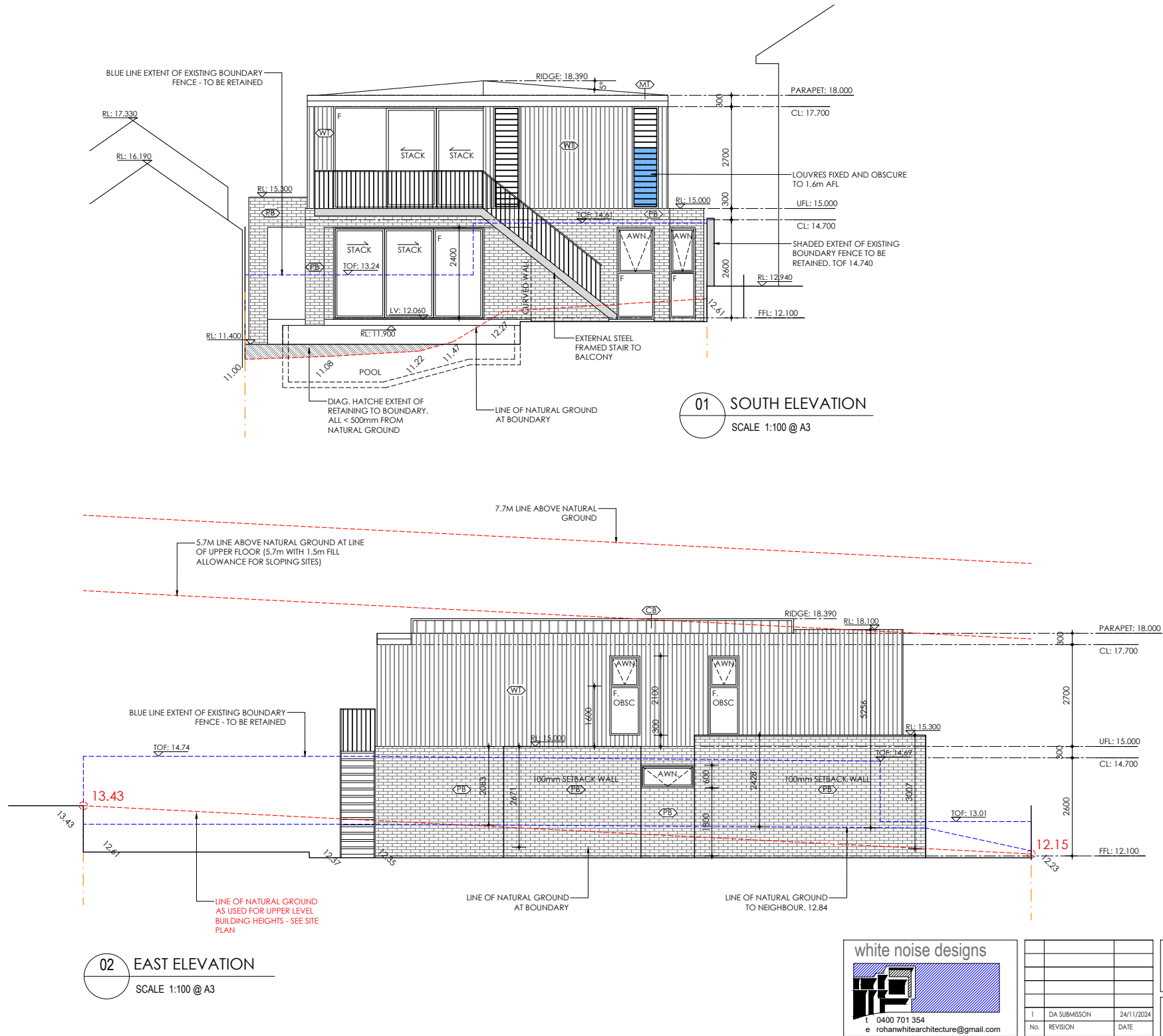
CLIENT
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PROJECT DESCRIPTION
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DRAWING TITLE ELEVATIONS 1			
JOB NO.		REV	DRAWING
DRAWN	RW	1	A2.01
SCALE	AS SHOWN		

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DA0392/24

16 Dec 2024



Schedule of applications determined under delegated authority

1. HINES ROAD, NO.21 (LOT 163), HILTON – ADDITIONS AND ALTERATIONS TO EXISTING SINGLE HOUSE - (LG DA0039/25)
2. HANLIN WAY, NO.12 (LOT 446), SAMSON – CARPORT ADDITION TO EXISTING SINGLE HOUSE - (CR DA0026/25)
3. MONTREAL STREET, NO.124 (LOT 20) – ADDITIONS AND ALTERATIONS TO EXISTING SINGLE HOUSE (JL DA0022/25)
4. CUREDALE, NO. 15 AND NO. 17 (LOT 20), BEACONSFIELD – VARIATION TO PREVIOUS PLANNING APPROVAL DA0042/24 (PARTIAL DEMOLITION AND ADDITIONS AND PARTIAL DEMOLITION AND TWO STOREY ADDITIONS TO TWO SEPARATE EXISTING GROUPED DWELLINGS – (JL VA0036/24)
5. JOHANNAH STREET, NO.5 (LOT 2) - VARIATION TO PREVIOUS PLANNING APPROVAL FOR DA0289/22 (TWO STOREY SINGLE HOUSE) (JL VA0002/25)
6. QUEEN VICTORIA STREET, NO 12-16 (LOTS 3 AND 31) AND NO.3 BEACH STREET (LOT 30), FREMANTLE – VARIATIONS TO PREVIOUS PLANNING APPROVAL TO DAP002/22 (SIX STOREY MULTIPLE DWELLING AND COMMUNITY PURPOSE FACILITY) (JL VA028/24)
7. HIGH STREET NO.9-19 (LOT 31), FREMANTLE – VARIATION TO PLANNING APPROVAL DA0200/24 (PARTIAL CHANGE OF USE TO TOURIST DEVELOPMENT AND ALTERATIONS OF EXISTING BUILDING) (JL VA0030/24)
8. CHARLES, NO. 17 (LOT 21), SOUTH FREMANTLE – TWO STOREY REAR ADDITIONS AND ALTERATIONS AND ANCILLARY DWELLING ADDITION TO EXISTING SINGLE HOUSE - (LG DA0351/24)
9. QUEEN VICTORIA STREET, NO.239-245 (LOT 13), NORTH FREMANTLE -- VARIATION TO PREVIOUS PLANNING APPROVAL FOR DA0352/24 (CHANGE OF USE TO RESTAURANT/CAFE, ALTERATIONS AND SIGNAGE ADDITIONS TO EXISTING BUILDING) (JD VA0003/25)
10. SOUTH STREET, NO.131 (LOT 2), BEACONSFIELD – CARPORT ADDITION - (CR DA0041/25)
11. PILBARRA STREET, NO.12 (LOT 25), WHITE GUM VALLEY – ADDITIONS AND ALTERATIONS TO EXISTING SINGLE HOUSE - (LG DA0016/25)
12. HOPE STREET NO.155, WHITE GUM VALLEY - THREE LOT SURVEY STRATA SUBDIVISION CLEARANCE – (JL WAPC9-24)
13. HIGH STREET, NO. 124-126 (LOT 558), FREMANTLE - CHANGE OF USE TO TAVERN – (JD DA0176/24)
14. FORREST STREET, NO. 138A (LOT 1), FREMANTLE - ADDITIONS AND ALTERATIONS TO EXISTING GROUPED DWELLING – (JD DA0314/24)
15. SOUTH TERRACE, NO.6/142 (LOT 6), FREMANTLE – CHANGE OF USE TO SHOP - (CR DA0031/25)
16. KNUITSFORD STREET, NO.16 (STRATA LOT 2), FREMANTLE – ADDITIONS AND ALTERATIONS TO EXISTING SINGLE HOUSE - (LG DA0404/24)
17. MCMAHON WAY, 12 (LOT 556), SAMSON – PRIMARY STREET FENCE ADDITION - (CR DA0030/25)
18. HOLLAND STREET, NO.93 (LOT 1569), FREMANTLE – TWO LOT SURVEY STRATA SUBDIVISION - (JL WAPC108-25)
19. HIGH STREET, NO. 3/230 (STRATA LOT 3), FREMANTLE – PRIMARY AND SECONDARY FENCE ADDITION - (LG DA0385/24)
20. DALY STREET, NO. 12 (LOT 116), SOUTH FREMANTLE – UNAUTHORISED OUTBUILDING ADDITION TO EXISTING SINGLE HOUSE - (ED DA0187/24)

21. RULE STREET, NO.13 (LOT 17), NORTH FREMANTLE – GARAGE ADDITION TO EXISTING SINGLE HOUSE - (LG DA0054/25)
22. ELLEN STREET, NO. 53 (LOT 1), FREMANTLE - VARIATION TO PLANNING APPROVAL DA0506/21 (FRONT FENCE ALTERATIONS) – (JD VA0001/25)
23. SNOOK CRESCENT, NO.95 (LOT 1), HILTON – ALTERATIONS AND ADDITIONS TO EXISTING SINGLE HOUSE - (CR DA0038/25)
24. WATKINS STREET, NO.52 (LOT 103), WHITE GUM VALLEY – ADDITIONS AND ALTERATIONS TO EXISTING SINGLE HOUSE - (CR DA0044/25)
25. FORREST STREET, NO. 45, FREMANTLE - TWO STOREY ANCILLARY DWELLING AND GARAGE ADDITION TO EXISTING GROUPED DWELLING - (ED DA0318/24)
26. SAMSON STREET, NO.3/50 (LOT 3), WHITE GUM VALLEY – PATIO ADDITION TO EXISTING HOUSE - (CR DA0055/25)
27. MONTREAL STREET, NO. 20 (LOT 555), FREMANTLE - PUBLIC GOLF COURSE REDEVELOPMENT - (JD DA0362/24)
28. PAKENHAM STREET, NO. 18 (LOT 1), FREMANTLE - CONSERVATION AND INVESTIGATIVE WORKS TO EXISTING BUILDING (JL DA0051/25)
29. ZETA CRESCENT, NO. 9 (LOT 55), O’CONNOR – PROPOSED WAREHOUSE AND OFFICE BUILDING - (LG DA0395/24)
30. BROMLEY ROAD, 56 (LOT 167), HILTON – CARPORT ADDITION TO SINGLE HOUSE - (NK DA0407/24)
31. SAMSON STREET, NO.83 (LOT 44), WHITE GUM VALLEY – PATIO & OUTBUILDING ADDITION TO EXISTING SINGLE HOUSE - (LG DA0035/25)
32. COMMERCIAL STREET, NO.9 (LOT 39), SOUTH FREMANTLE – PRIMARY STREET FENCE ADDITION - (CR DA0047/25)
33. HOWARD STREET, NO. 3 (LOT 2), FREMANTLE - ALTERATIONS & ADDITIONS TO EXISTING SINGLE HOUSE – (JD DA0364/24)
34. QUEEN VICTORIA STREET, NO.9/51 (LOT 9), FREMANTLE – CHANGE OF USE TO MEDICAL CENTRE - (CR DA0069/25)
35. DIRECTION WAY, NO.4 (LOT 20), NORTH FREMANTLE – PATIO ADDITION TO EXISTING HOUSE - (CR DA0057/25)

LOCAL DEVELOPMENT PLAN PROVISIONS	
1.0	General Provisions
1.1	This Local Development Plan (LDP) applies to Survey Strata Plan 3856 and is required pursuant to condition 5 of WAPC Approval 161312.
1.2	The provisions of City of Fremantle's Local Planning Scheme No.4, local planning policies, design guidelines and Residential Design Codes Volume 1 2024 (R-Codes) apply unless otherwise varied.
1.3	Should any inconsistency with the local planning policies, design guidelines or the R-Codes arise with future development, this LDP shall prevail.
1.4	Variations to the requirements of this LDP may be approved at the discretion of the statutory planning decision maker.
2.0	Sustainability
2.1	Buildings designed in accordance with Council's Local Planning Policy 2.2 Split Density Codes and Energy Efficiency and Sustainability Schedule.
2.2	Rainwater tanks are not to be located forward of the garage to Lois Lane
3.0	Vehicle Access
3.1	Vehicular access to be provided from Lois Lane servicing all lots.
3.2	Each dwelling provided with double car garage, as located on the LDP.
4.0	Streetscape Activation
4.1	Second storey ancillary dwelling is permitted above each garage.
4.2	At least one major opening on each lot is to face Lois Lane to provide passive surveillance
5.0	Open Space and Landscaping
5.1	Minimum of 1 medium tree (200L) shall be provided within the indicative deep soil zone. A minimum dimension of 3m x 3m shall be provided to support the growth of the tree.
5.2	50% of the courtyard space shall be provided within the indicative deep soil zone and be kept unobstructed of impermeable surfaces and free of any roof structures.
6.0	Dwelling Orientation
6.1	All lots to have north facing outdoor living areas.
7.0	Waste Management
7.1	Bins are to be stored within each dwellings garage.
8.0	Lot Boundary and Laneway Setbacks
8.1	Boundary walls permitted as shown within this LDP.
8.2	Laneway setback permitted as shown within this LDP.

LOCATION PLAN	
LEGEND	
	PRIMARY AND COMMUNAL STREET FRONTAGE
	DESIGNATED VEHICULAR ACCESS POINT
	PERMITTED BOUNDARY WALL LOCATIONS
	SUBJECT LOTS
	DESIGNATED WASTE COLLECTION POINT
	PERMITTED SECOND STOREY ANCILLARY DWELLING
	PERMITTED GARAGE BOUNDARY WALL
	INDICATIVE DEEP SOIL ZONE
	INDICATIVE WATER TANK LOCATION

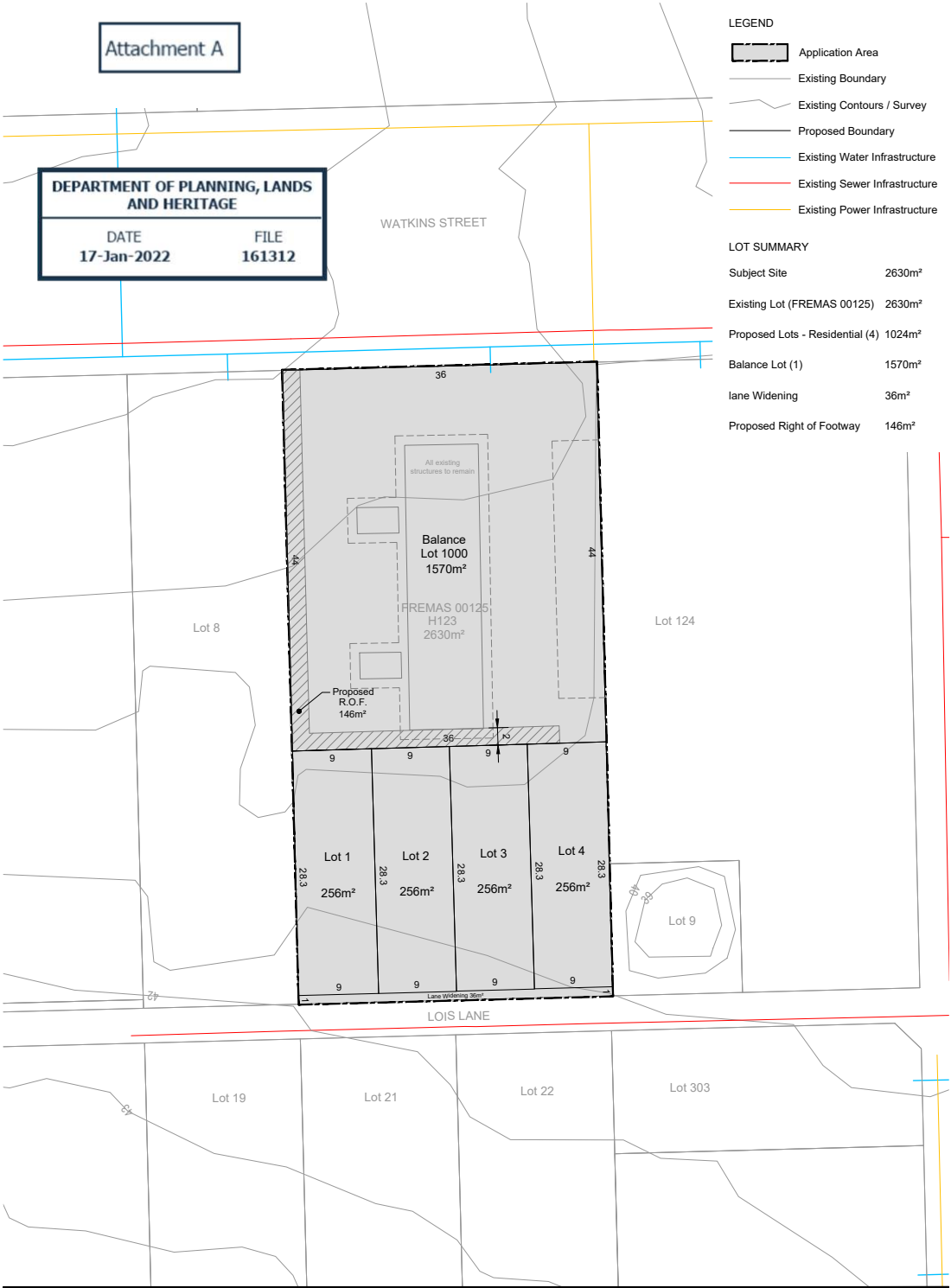
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LOCAL DEVELOPMENT PLAN		
123 WATKINS STREET, WHITE GUM VALLEY		
	PLAN	REV
	PN24291 05	C
	DRAWN	APPROVED
SCALE:	DATE	DESCRIPTION
	17/03/2025	LDP
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Subdivision Plan
123 Watkins Street, White Gum Valley

Date: 14 Jan 2022 Scale: 1:400 @ A3 1:200 @ A1 File: 19-285 SU05A Staff: CT GW Checked: CT

element.

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Knutsford Street East

Local Structure Plan



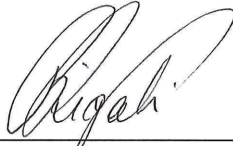
As
amended

Adopted Sept 2017

IT IS CERTIFIED THAT AMENDMENT NO. 1 TO KNUTSFORD STREET
EAST LOCAL STRUCTURE PLAN WAS APPROVED BY RESOLUTION
OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

9 April 2018

Signed for and on behalf of the Western Australian Planning Commission



an officer of the Commission duly authorised by the Commission pursuant
to Section 16 of the *Planning and Development Act 2005* for that purpose.

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2	Riley Consultants : Traffic and Transport Report
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EXECUTIVE SUMMARY

The Knutsford Street East Local Structure Plan has been prepared for the historic Industrial Area at the eastern end of Knutsford Street, between Amherst and Montreal Streets. The opportunity and impetus for redevelopment has been created with the deletion of the Fremantle Eastern Bypass Reservation and zoning of the area for development under the City of Fremantle's Local Planning Scheme No.4.

The Development zone requires preparation of a structure plan as the first step towards re-development and this structure plan has been prepared to fulfil that obligation. It provides an assessment of the subject land, the basis and vision for its future development and an implementation process responding to the complicated nature of the site, particularly co-ordination of redevelopment across the multiple ownerships.

Opportunities inherent in the subject land supporting redevelopment include its zoning, the aging nature of many of the improvements within the land, the removal of the Fremantle Eastern Bypass Reservation, the presence of significant Government landholdings, the redevelopment process currently underway on adjoining land as part of the Swanbourne Street Structure Plan area, the proximity to facilities and services present within the Fremantle City area and the proximity of the subject area to major recreational facilities, such as the Golf Course, Booyeembarra Park and Stevens Reserve.

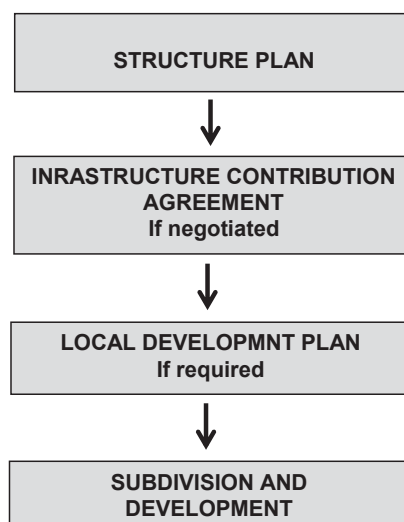
Some possible constraints identified include possible historic site contamination, a number of dramatic level shifts, the need for additional servicing requirements and the multiple land ownership. While identified constraints will need to be addressed, there has been no 'fatal flaw' identified which would preclude redevelopment for residential and mixed use purposes proceeding.

A vision to redevelop the aging, underused industrial area into an exemplary residential and mixed use area supported by local shops and integrated with the existing surrounding community has long been identified by the City of Fremantle. This structure plan is intended to establish the first stage in a number of steps towards redevelopment of the land. It is intended as a generically based document, outlining general principles for redevelopment of the subject area which will need to be applied in further, more detailed planning for the site. These principles establish the preferred land uses, density of development, form and standard of development, infrastructure improvements to accommodate the future residential and commercial developments and the process for implementation of the structure plan and further detailed planning.

Redevelopment of the site will be based upon the general principles as established under the structure plan which may then be applied to detailed planning, subdivision and in the

preparation of local development plans (if required) within the structure plan area. This approach enables individual owners to proceed with redevelopment in accordance with their desired programme while ensuring necessary planning requirements and objectives are suitably addressed.

The implementation process establishes up to four stages, being the structure plan, infrastructure contribution agreements (if negotiated), preparation of local development plans (if required) and, finally, subdivision and/or development applications and approvals. This process provides for coordination between landowners, where necessary, while also providing for maximum flexibility for individual landowners in determining and proceeding with their own developments within the wider context of the coordinated vision and need to address the multiple ownership aspect.



The structure plan will have a significant role in the revitalisation of this area, providing opportunities for the combination of living and work opportunities and the creation of a vibrant new sustainable community on the fringe of the city centre, surrounded by parks and with good access to local and regional roads for public and private transport. It represents a more efficient use of land through the provision of a mix of land uses which allow new businesses to be created alongside of new residents who can support and benefit from the services they have to offer. It is these important elements of the structure plan that will see the vision for the Knutsford Street East locality realised.

INTRODUCTION

The Fremantle industrial area south of High Street has been identified as a prime redevelopment site by the City of Fremantle as part of its town planning scheme review. This has been coupled with a push for change from some of the landowners who have long recognised the opportunity for a broader range of uses to be accommodated and who have supported the shift from an industrial focus towards residential and commercial activities.

The 'Development Area' zoning of the land, introduced in Local Planning Scheme No. 4 ('LPS 4'), provides the opportunity for the revitalisation of this area and its redevelopment for a range of urban purposes, including residential, community, mixed business, commercial activities and limited light and cottage industries.

In order to facilitate the coordinated urban development of this land, a Local Structure Plan ('LSP') has been prepared for consideration and adoption by the Council.

The LSP has been prepared, under the instruction of the Knutsford Street East Local Structure Plan Steering Committee ('The Steering Committee'). The Steering Committee is a group of landowners, both private and government, within the LSP area, who have funded preparation of the LSP.

The outcome of this local structure planning exercise is the preparation of a report and accompanying plans which justify and explain the process whereby a wider range of land uses are introduced into this area including residential, commercial, mixed use and community, for the purpose of establishing a vibrant sustainable community which comprises residents, workers and business owners.

The LSP comprises three parts, Part 1 – Context, Part 2 – The Structure Plan, and Part 3 – Implementation.

Part 1 provides the context for the structure plan, outlining the existing characteristics of the subject site, its surrounding area of influence and relevant planning considerations, including proximity to employment centres, local and regional roads, public transport, schools, parks and other community facilities.

Part 2 outlines the vision and objectives of the structure plan and recommendations for land use change which are consistent with the vision and objectives and which can be supported within the context of the site's physical and location characteristics. The philosophy behind the structure plan is explained and supporting information is provided to justify the recommended land uses, including environmental, servicing and traffic information.

Part 3 details the strategy for implementing the structure plan. This section also discusses alternative mechanisms for ensuring the coordinated subdivision of the land and outlines models which could facilitate the efficient servicing and development of the land and the equitable distribution of associated costs.

1.0 CONTEXT

1.1 SITE DESCRIPTION

1.1.1 Location

The subject land is located 15km south west of the Perth CBD and 1km east of the Fremantle City Centre (refer Figure 1 – Location Plan). It is bounded by Blinco Street to the north, Montreal Street to the east, Stack Street to the south and Amherst Street to the west, and comprises an area of approximately 12ha (refer Figure 2 – Subject Land).

1.1.2 Existing Land Uses

The subject land has historically been utilised for industrial purposes in accordance with the previous zoning of the land under the City's former Town Planning Scheme No. 3 (TPS 3). The current industrial uses are permitted to continue in accordance with the non-conforming use rights prescribed in LPS 4, regardless of the zoning and the proposals contained within the LSP.

The range of industrial and commercial activities currently undertaken include warehousing, storage, manufacturing (furniture, air conditioning), automotive repair, boat building, plumbing and gas services, sheet metal pressing, plant nursery, City Council depot and caretaker/residential.

As part of the detailed planning stage, consideration will need to be given to the continuation of any industrial activities and their impact on the amenity of new residents or businesses in this area. This may mean that redevelopment is delayed or staged or adapted so as to accommodate existing industrial activities. While some industrial activities are compatible and will be permitted to continue their operations (in accordance with any approvals) others may be encouraged to relocate or modify their operations to facilitate the redevelopment of this area in accordance with the vision.

The existing building stock can be classified as old and run down. Only two buildings (10 and 12 Stack Street) have been identified as possibly having some heritage significance and have been listed for inclusion in the City of Fremantle's Municipal Heritage Inventory. However, there may be an opportunity to preserve some of the buildings and re-use them for residential or commercial/mixed use. The offering of incentives in the form of building density and plot ratio in order to retain existing building stock may assist in the maintenance of the identity of this area as a former industrial estate.

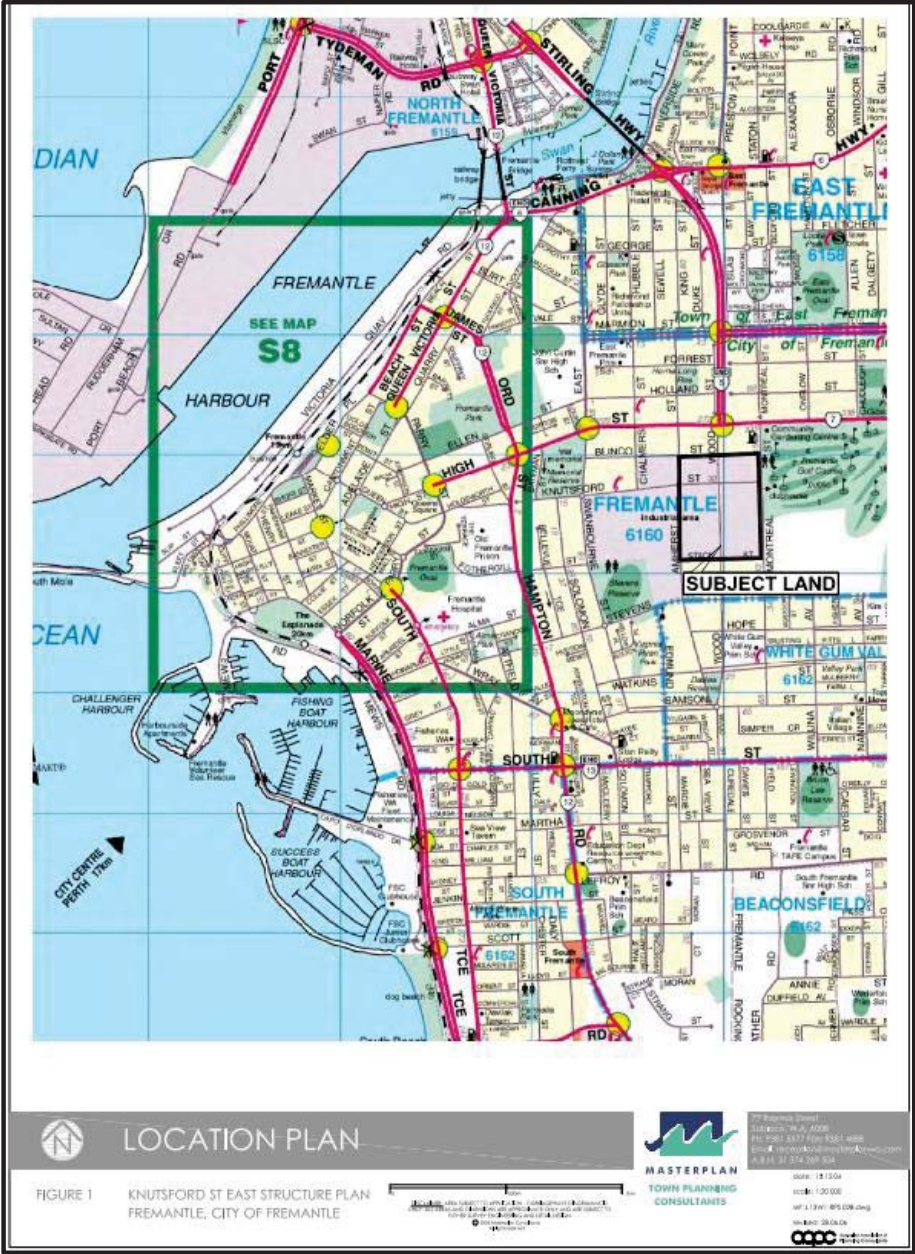




Figure 2 – Subject Land

Due to the historic use of the subject land for industrial purposes, dating back to the 1950s, there is the possibility that some contamination of the soils and groundwater has taken place. A Detailed Site Investigation to the standards prescribed by the Department of Water and Environmental Regulation (DWER) will be required as a precursor to development within any of the Structure Plan area in accordance with the LSP. This will be the responsibility of the individual landowner and is most appropriately undertaken prior to detailed site planning or subdivision, to ensure that site contamination and remedial works do not impact upon the end development form.

1.1.3 Existing Access

The subject land is immediately accessible from High Street to the north, via Montreal Street or Amherst Street although this may change depending on future road works to improve port access.. Access to the area can also be obtained from South Street to the south, via Wood Street, and indirectly from Hampton Road to the west, via Stevens Street through the established residential areas of Fremantle and White Gum Valley.

There is no direct access to or from the subject land and High Street via Wood Street. Furthermore, access to Amherst Street from High Street is limited to left in and left out only. These restrictions on access from High Street, the major route to Fremantle and Perth from the subject land, serve to channel most traffic to the area along Montreal Street, Amherst Street and nearby Chalmers Street although this may change depending on future road works to improve Port access.

Amherst Street, Montreal Street, Stack Street, Wood Street, Knutsford Street and Blinco Street, within and adjoining the subject land, are classified as local roads, although, as discussed above, Montreal and Wood Street in particular, do function as local collector roads. Access may need to be reassessed depending on future road works to improve Port access.

1.1.4 Site Analysis

The subject area is bordered by both long-established residential and other historic industrial land uses. Land to the north of Blinco Street and to the south of Stack Street comprises predominately single residential development, with some grouped dwellings, characterised by 30-50 year old buildings in fair to good condition. The City's Municipal Heritage Inventory lists Nos. 10 and 12 Stack Street as having some heritage significance and additional buildings are also worth further consideration in this regard.

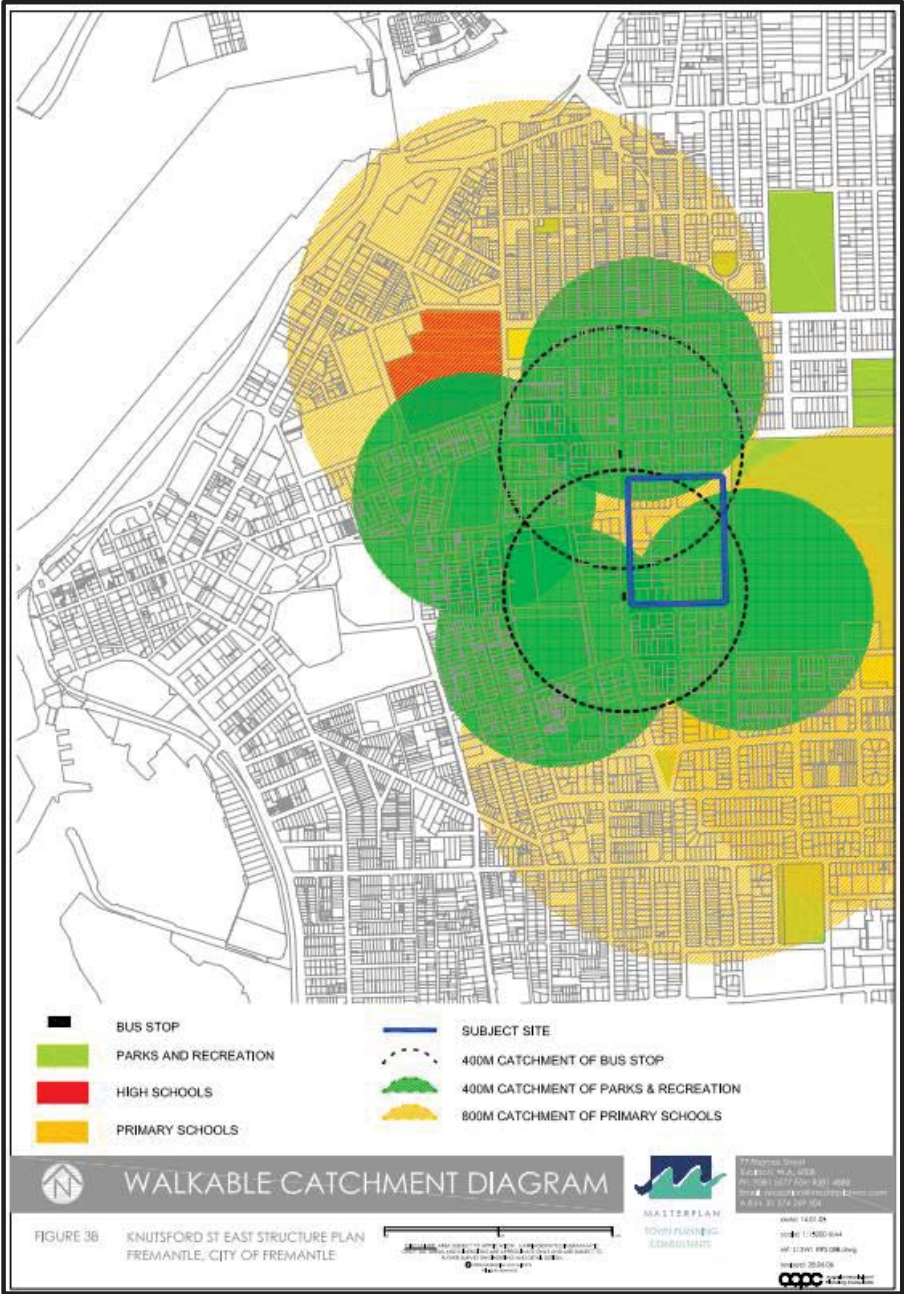


Figure 3 – Walkable Catchment Diagram

Residential lot sizes are generally 900m² to 1800m². The current zoning of the land provides the opportunity for development at a higher density than is presently taken advantage of in this area, with a minimum lot size of 300m² permitted under the R25 coding. This opportunity for higher density development coupled with an aging housing stock may lead to the redevelopment of this neighbouring residential area to a standard not dissimilar to that proposed in the LSP area.

The subject land, by virtue of its proximity to the city centre, is accessible to the full range of services and amenities available in and around the city centre, including shopping, commercial, community, medical, entertainment and recreation activities. (refer Figure 3 – Walkable Catchments).

The Fremantle Public Golf Course and club house is located on the eastern boundary of the subject land on the opposite side of Montreal Street. Booyeembarra Park is also located on the opposite side of Montreal Street and provides for the passive and active recreational needs of residents in the immediate area. Other recreational areas are also located in proximity to the subject land, including Stevens Reserve to the south west (off Stevens Street), Memorial Reserve to the north west (off Knutsford Street) and the proposed public open space areas within the Swanbourne Street Structure Plan (SSSP) area to the west.

The SSSP area abuts the subject land to the west and provides for the future redevelopment of this industrial area for residential and community purposes. The original SSSP was adopted by the City of Fremantle in December 2003 and a more recent SSSP was approved by WAPC in September 2015.

There is the opportunity to build upon the green links provided in the SSSP through the identification of expanded green links through the LSP, particularly within the wide road reserve along Knutsford Street. This would link future residents and workers within the LSP area to established parks and recreational nodes to the east and west, as well as local shopping facilities.

There are a range of educational facilities serving the area, including White Gum Valley Primary School on Montreal Street to the south, East Fremantle Primary School on Forrest Street to the north-west and John Curtin Senior High School on East Street, also to the north-west.

Due to the subject land's proximity to these services and facilities, with a choice of parks located within a short walking distance of the land, the need to physically provide land for the development of additional parks and recreation areas in this area is questioned. A contribution towards the enhancement of existing parks and recreation areas is considered more likely to be of benefit to the community in this area. However, consideration will need to be given to any requirement to retain storm water drainage on site and the opportunity to combine this

with landscaped POS areas in order to introduce a more visually pleasing feature to the LSP area.

The introduction of additional residents into this area may lead to a demand for local convenience shopping which is not currently provided for in this area. Some mixed use development has been identified in the SSSP. In addition an opportunity exists for a local convenience store to be accommodated within the LSP area to service existing and proposed new residents and workers of this area. As a permitted land use a convenience store could be located anywhere in the LSP area. Given the location of the mixed use development site on the eastern periphery of the SSSP and the need to provide a site easily accessible to pedestrians and passing vehicles, a site on or near the corner of Montreal and Knutsford Streets may be most appropriate.

The subject land comprises a varied and undulating landform which has been further modified historically, via retaining and the use of embankments. This is further detailed in Section 2.2, following. However, it is noted here as the land offers potential sweeping inland views. The possibility of ocean and city views may exist, but will largely be dependent upon development height. Accordingly, advantage may be taken of these potential views through the provision of higher density residential development in appropriate locations, including on Knutsford Street and also on sections of Montreal, Wood and Amherst Streets, close to Knutsford Street.

1.2 ENVIRONMENT

1.2.1 Climate

Fremantle experiences a Mediterranean climate with warm to hot summers and cool, wet winters. The summer temperature averages 29°C during the day and 17°C at night with the afternoon sea breeze (known as the *Fremantle Doctor*) offering relief during the summer months. The average winter temperature is 18°C during the day, dropping to 9°C at night. The average annual rainfall for Fremantle is 775mm with the majority of this falling in the winter months of June to August (Bureau of Meteorology Australia, 2002).

The opportunity exists, with the redevelopment of this industrial area, for additional residents to enjoy the climate of Fremantle, and, with the use of medium to high residential densities, there is the opportunity for apartments to be afforded ocean views and benefit from possible cooling sea breezes.

1.2.2 Topography

The topography of the site originally consisted of steep undulating slopes. Following historic limestone extraction, the land comprised numerous excavation pits, rendering the topography indiscriminate.

The existing topography will be retained and the historical topography of the area will be enhanced, where possible, through the use of minimal cut and fill to increase the existing fill levels or reduce the land profiles as part of the development process.

Boundaries of several of the lots now consist of significant earth retention, via retaining walls, resulting in vertical gradients up to approximately 5 metres. The current elevations range from 24mAHD to 32mAHD. This characteristic of the landform will influence the final development form and, accordingly, must be addressed and accommodated at the Subdivision or development application stage.

Due to the nature of the topography, local surface run-off varies across the subject land. The portion of the subject land with Wood Street as its western boundary is likely to have surface water run-off generally in a north-easterly direction towards the north-eastern segment of the golf course. The portion of the subject land with Wood Street as its eastern boundary is likely to have surface water run-off generally to the north, towards the adjacent residential area.

There may be an opportunity to further explore the piping of some of the storm-water drainage off-site into a compensation basin within Booyeembarra Park to the southwest of the LSP area. However, the topography of the land would limit this opportunity, thus not making it feasible to provide the necessary infrastructure to pipe only a small amount of the storm-water run-off to Booyeembarra Park.

Furthermore, the increase in surface water runoff as a result of the redevelopment of the land is considered to be minimal, given the vast expanse of existing hard stand areas associated with industrial development. However, any storm-water which is not considered capable of being accommodated within an individual site will need to be accommodated in sumps or swales and reflect best management practices in water sensitive urban storm-water management. The location of these facilities will be determined at the development stage in consultation with the City. Land required for drainage at the subdivision stage would be set aside as a 'Reserve for Drainage Purposes'. Where it is identified that storm-water retention facilities are required within the Structure Plan area, consideration will be given to the design and landscaping of these areas to improve the amenity of the area and opportunities to combine these facilities with parks and achieve POS credits, will be explored.

1.2.3 Regional Geology and Hydrogeology

According to information obtained from the Geological Survey of Western Australia 1:50 000 Environmental Geological Series "Fremantle" (Gozzard, J R, 1983), the subject area is characterised by Tamala Limestone from the surface to 30-35m below ground level.

Based on information obtained from the Perth Groundwater Atlas, 1:15 000 (Water and Rivers Commission, 1997), groundwater is located between 5 and 13 metres below ground level. Soils are highly permeable and groundwater is expected to flow west to north-west towards the Fremantle Harbour section of the Swan River and the Indian Ocean.

The preliminary site investigations undertaken by Parsons Brinkerhoff have identified that, due to the highly permeable nature of the soils and depth to groundwater, it is likely that historical land uses in this area have had a detrimental impact on groundwater quality (refer Parsons Brinkerhoff Environmental Report (Appendix 1). Accordingly, further, more detailed, site investigations will need to take place at the subdivision or development application stage to determine the extent of any contamination of the groundwater. Further consideration will also need to be given to the use of memorials on the titles of any new lots to inform landowners of the need to avoid contact with the groundwater, should contamination be found to have taken place.

1.2.4 Flora and Vegetation

Historic aerial photography shows that the majority of the subject area has previously been cleared of vegetation as part of historic limestone extraction activities and more recent industrial development in this area. The vegetation that exists now is mainly regrowth *Acacia* over storey, with little conservation value, over a range of weed species.

As a result of the extensive clearing that has occurred over the subject land in the past, the highly degraded vegetation presents very little opportunity for native fauna habitat.

1.2.5 Potentially Contaminating Activities

Preliminary site investigations were undertaken in September 2004 by Parsons Brinkerhoff, and potentially contaminating activities were identified.

Parsons Brinkerhoff identified a number of sites, within a radius of 1.1km of the subject land, which are listed as LEGACI Investigation Sites by the then Department of Environment. Four of these sites are located within the structure plan area, being Lots 2, 3 & 1219 Stack Street and Lot 11 Blinco Street. The activities undertaken on these sites included electroplating, manufacture of paint and reconditioning of machinery and have been identified as potentially contaminating.

In addition to these sites, a portion of Booyeembarra Park to the east of the structure plan area has previously been used for a sanitary landfill site (City of Fremantle putrescible and inert waste disposal). Groundwater from Booyeembarra Park is likely to flow beneath the subject land, resulting in possible contamination of water in this area. Accordingly, following the change in use of the area from industrial to residential, restrictions may need to be placed on any use of groundwater for domestic purposes.

The majority of the structure plan area currently, and in the past, has been occupied by land uses with a potential to cause contamination of soil and groundwater. Due to the proposed change in land use to a more sensitive land use, and in accordance with the Department of Water and Environmental Regulation Guidelines, further investigations are required to be undertaken on the lots within the structure plan area to determine each site's contamination status. These more detailed site investigations will need to be undertaken at the next stage, as part of the subdivision, development or Local Development Plan preparation. A guide to the potential scope of works to be undertaken for each lot to determine the extent of any contamination and necessary remediation is included within the Parsons Brinckerhoff Report included as Appendix 1.

1.2.6 Culture and Heritage

The subject land has no identified cultural significance. However, the historic character of the

industrial area can be acknowledged and emphasised in the redevelopment through the retention and/or reuse of buildings or portions of buildings and building materials in future residential and commercial/mixed use development. The preparation of Design Principles guide future development and describe attributes which will assist in maintaining the character of the former industrial area.

A search of the Department of Indigenous Affairs Aboriginal sites database revealed that no portion of the site was registered on the 'interim' or 'permanent register'. The *Aboriginal Heritage Act 1972* (the Act), protects all sites, whether they are registered or not. Due to past activities undertaken on the land and the extent of existing development, it is unlikely that any Aboriginal sites exist on the land. Nevertheless, an Aboriginal Heritage Survey may be required to confirm the absence of any sites of significance to ensure compliance with the expectations of the Act.

1.3 PLANNING CONTEXT

1.3.1 Metropolitan Region Scheme (MRS)

The current MRS zoning of the subject land is 'Urban'. The 'Urban' zoning provides for the residential and small scale commercial use of the land in accordance with the structure plan.

Wood Street, along with land immediately adjoining it on the eastern side, was formerly reserved in the MRS for the purpose of establishing the Fremantle Eastern By-pass (FEB). The deletion of the FEB was the catalyst to the redevelopment of this area for residential purposes.

1.3.2 Historic Zoning (Town Planning Scheme No.3)

The current and historic use of the subject land is a result of the historic zoning of the land.

The subject land was historically zoned 'Industry' under the City of Fremantle's Scheme (TPS 3). A portion of the land, on the eastern side of Wood Street, encompassed the former FEB Road Reserve and was accordingly designated the same under TPS 3. With the deletion of the FEB from the MRS, TPS 3 was also amended to remove the FEB reserve. Affected portions of the subject land were consequently zoned 'Development Zone' to reflect the proposed zoning for the area under LPS 4

1.3.3 Local Planning Scheme No.4

The redevelopment opportunity inherent in the structure plan has been acknowledged with the designation of the subject land as 'Development zone' in LPS 4 with a corresponding

Development Area No. 1 reference (refer to Figure 4 – LPS Zoning Plan).

The current zoning provides for the future residential, commercial and mixed use of the land in accordance with this structure plan. The use class table in LPS 4 (Table 1 – Zoning) does not indicate the uses that are permitted within the 'Development zone'. Instead, the Scheme provides for an approved structure plan to designate land uses.

This structure plan designates residential, commercial, mixed use, community and limited light, service and cottage industrial land uses throughout the area. The land uses preferred for this area have been modelled on the land uses designated in the Mixed Use zone under LPS 4.

1.3.4 Regional and District Planning Studies

Fremantle Regional Strategy 1994

The Western Australian Planning Commission's (WAPC) Fremantle Regional Strategy (FRS 1994) recommends that the bunkering facilities on the adjoining land to the west, within the SSSP area, be relocated as they are no longer appropriate for this location and implies that this area, encompassing the subject land and adjoining land, should be more appropriately utilised for residential and mixed use purposes.

The FRS was prepared by the WAPC in association with the City of Fremantle. The current zoning of the land in the MRS and LPS 4, and the designation of mixed use / residential in the structure plan, reflects the intentions of the strategy.



Figure 4 – Local Planning Scheme zoning plan

1.3.5 State and Local Policies/Strategies

Local Planning Strategy

The City of Fremantle Local Planning Strategy, the Fremantle Planning Strategy (July 2001), was the precursor to LPS 4, and established the long term strategic direction and rationale for the Scheme.

The Fremantle Planning Strategy (2001) identified the subject area as Development zone and required the preparation of a structure plan to advance development. This structure plan has been prepared in response to the LPS recommendations and subsequent LPS 4 zoning.

State Planning Context

The WA State government's Network City Framework and subsequent policies and planning frameworks including Perth and [Peel@3.5m](#) and Central Planning Framework, identify the need to increase the proportion of housing in infill development in order to accommodate population growth targets. The subject land and surrounds, as an older area offers many opportunities to redevelop underused land and to strengthen networks and centres.

These strategies propose a target of 7030 dwellings for Fremantle to increase (from 2011). This structure plan, through the redevelopment and remediation of industrial land for residential and mixed use purposes will assist in the achievement of this infill objective through the contribution of around 900 new dwellings. The structure plan will provide for residential development at higher densities, which represents an efficient use of land within an established and well serviced area, and which provides the opportunity to strengthen the existing networks and centres within, and leading into, Fremantle.

1.4 OPPORTUNITIES AND CONSTRAINTS

The subject land presents a variety of opportunities to support and encourage its redevelopment and, while a number of potential constraints are also noted, the opportunity inherent in the land is considered to outweigh these constraints.

1.4.1 Opportunities

Zoning:

The rezoning of the site to "Development Zone" in LPS No.4 establishes the statutory framework for redevelopment to proceed.

Age of Improvements:

The continuing and ongoing viability of the area as an effective and modern industrial area is in question due to the age and condition of many of the improvements which are in need of refurbishment. This situation promotes the opportunity for redevelopment.

Removal of FEB:

The deletion of the FEB reservation has removed a constraining factor to the use of part of the subject land.

Government Landholdings:

Government agencies own or control significant parts of the subject area ensuring a presence within the subject land of experienced development agencies, in turn providing an impetus for development.

Swanbourne Street Structure Plan (SSSP):

Redevelopment of the adjoining industrial area to the west has been initiated by the adoption of the SSSP by the City of Fremantle. Physical redevelopment of parts of this area has already commenced with the demolition of buildings on Lot 1354 Knutsford Street.

Proximity to Fremantle City:

The close proximity to the Fremantle City Centre ensures access to the full range of facilities, services and employment opportunities necessary to help sustain a future residential and mixed use area.

Proximity of Golf Course, Booyeembarra Park and Stevens Reserve:

The proximity of a range of recreational and open space facilities, meeting both active and passive activity needs, further supports the potential of the subject land for residential and mixed use purposes.

1.4.2 Constraints

Possible Historic Contamination:

The long term use of the subject land for industrial activity may have resulted in some contamination issues which will need to be addressed. Some sites within the subject land have been identified by environmental authorities as possible sites of contamination.

Dramatic Level Shifts – Embankments/retaining:

Historically, the subject land has been reworked resulting in the creation of a number of embankments or retaining walls across the site and substantial differences in ground levels in some instances. This could also be seen as an opportunity as dramatic topography is relatively rare in the Perth metropolitan area.

Additional Servicing Requirements:

The level and standard of service infrastructure available within the subject area is unlikely to be sufficient to meet residential requirements and will, therefore, require both upgrading and expansion.

Multiple Land Ownership:

The structure plan area contains a range of multiple land ownerships including both Government and private owners. Co-ordination of, and co-operation between, landowners will be integral to securing the implementation of the structure plan and subsequent redevelopment of the subject land.

In summary, the location of this historic industrial area, its changed zoning, the dated condition of many of the improvements and redevelopment opportunities and pressures nearby provide an impetus towards redevelopment of the subject land. The constraints inherent in the site, while challenging, do not comprise a 'fatal flaw' which would preclude redevelopment for residential and mixed use purposes proceeding.

Bush Fire Prone Area

State Planning Policy (SPP) 3.7 requires strategic planning proposals relating to land with a bushfire hazard level (BHL) and Bushfire Attack level (BAL) above low to comply with the policy. A portion of the structure plan area has been designated as a Bushfire Prone Area by Department of Fire and Emergency Services (DFES) affected by Booyeembarra Park. This does not preclude development however the structure plan is required to address how the policy will be complied with.

2.0 STRUCTURE PLAN

2.1 STRUCTURE PLAN PHILOSOPHY

2.1.1 Vision

To redevelop an aging underutilised industrial area through the introduction of a mix of residential and commercial uses including small scale convenience retail to serve the local area and integrated with the existing surrounding community via the application of sustainable planning principles which retain the historic character of its former industrial use without compromising the amenity of existing and future residents, workers and businesses.

2.1.2 Objective and Principles

The following objective and the principles outlined constitute the planning philosophy required to achieve the above vision.

To create a sustainable residential and mixed use area by adhering to the following principles:

Integration: Ensure the new community is integrated with the existing residential community and the proposed new adjoining communities, with particular attention to the interface.

Permeability: Facilitate social integration by promoting access through the site, particularly for cyclists and pedestrians.

Green Links: Promote accessibility between Booyeembarra Park and the proposed green spaces within and adjacent to the Swanbourne Street Structure Plan area.

Community: Enhance and support existing public open space areas and provide for Knutsford Street to act as a community focal point and to foster social interaction by linking Monument Hill Park to the Golf course and Booyeembarra Park.

Diversity: Promote a mix of land uses and a range of housing types to meet the housing needs of a wide range of the community.

Efficiency: Take advantage of the site's proximity to existing urban areas and established community and service infrastructure by providing for development at a range of residential densities.

Environment: Remediate the site to where it is suitable for residential and community use.

Identity: Endeavour to instill a 'Fremantle identity' with some relationship to the site's history and its industrial character.

Economic Development: Provide opportunities for existing and new local commerce, shops, light industry and home based employment which expand upon the exiting employment opportunities in the area.

Amenity: Create an urban environment which satisfies the lifestyle, aesthetic and security aspirations of its residents and workers.

Innovation: Promote flexible land use solutions for residential, mixed use and home based employment opportunities.

Urban Design: Adopt appropriate urban design principles, including from the WAPC's Liveable Neighbourhoods approach, and the Design WA suite of documents which strive to achieve a built form that promotes the preceding principles.

Adaptability: Encourage the retention of existing buildings and businesses and the introduction of new business and built form which is able to adapt to a range of land uses over time to meet the changing needs of the community.

Sustainability: Achieve a balance between social, economic and environmental considerations and lead by example in the adoption of environmental best practice with a focus on sustainability in built form and land use and services

2.2 STRUCTURE PLAN APPROACH

The Knutsford Street East Structure Plan has been prepared in accordance with the requirements of Clause 6.2.6 of LPS 4 for the preparation of a local structure plan.

The structure plan is generic and provides the broad principles for the coordinated subdivision and development of Development Area No. 1. The structure plan identifies the requirements for subdivision and site design which will facilitate the ultimate development of the land in accordance with the vision, objective and principles of the structure plan.

2.2.1 Precincts

In 2006 the structure plan area was divided into five (5) precincts. The 5 precincts were allocated on the basis of land ownership groupings and the boundaries were generally defined by the location of roads (refer Figure 5 Land Ownership and Precinct Plan).

The delineation of precincts is no longer considered necessary to assist orderly planning and development, however they are still useful to describe servicing requirements later in the document. The Precincts were described as:

PRECINCT 1: (Private Landowner Group 1)

Area bound by Amherst, Knutsford, Wood and Blinco Streets, and comprising Lots 10-16 Blinco Street, Lots 3-7 & 25 Knutsford Street, Fremantle, with a total area of approximately 1.4ha.

All properties are currently privately owned and used for industrial or commercial purposes, including warehousing, storage, plumbing and gas services, furniture manufacturing, crayfish pot building and automotive repair. Two of the properties in this precinct are currently used for caretaker residential purposes, in conjunction with industry.

PRECINCT 2: (Former WA Museum Site)

Area bound by Wood, Knutsford, Montreal and Blinco Streets and comprising Lot 1819 (former Reserve 23558), with an area of 1.6ha.

The land is classified as Crown Land and is currently owned by the Department of Planning, Lands and Heritage and Infrastructure and leased to the Western Australian Museum for storage purposes. Prior to this, the site was used as a maintenance depot for the Public Works Department. LandCorp, the government's premier land development agency, is currently in the process of acquiring the land and is the likely developer of this land.

PRECINCT 3: (City of Fremantle Depot)

Area south of Knutsford St, west of Montreal Street and east of Wood Street, comprising Lots 11, 12 & 13 and encompassing an area of approximately 2.5ha.

The land is currently owned by the City of Fremantle and is occupied by the City's Public Works Depot and Nursery.

PRECINCT 4: (Private Landowner Group 2)

Area north of Stack Street and west of Montreal Street and comprising Lots 1-4, 7 & 17 Stack Street, Lots 8-10 Montreal Street and Lots 14-16 Wood Street, Fremantle, with a total area of approximately 1.9ha.

The land is predominately privately owned, with Lots 1, 15 & 16 on the corner of Stack Street and Wood Street currently owned by the Commissioner of Main Roads. LandCorp is currently in the process of acquiring the lots and is the likely developer. The properties are generally used for industrial purposes, including storage of building materials, automotive repair, sheet metal processing, engineering, boat building, air conditioning manufacture, metal coating (casting) and art studio.

PRECINCT 5: (Private Landowner Group 3)

Area bound by Knutsford Street, Stack Street, Amherst Street and Wood Street and comprising Lots 500 & 501 Knutsford Street, Lots 1, 1823, 1209, 1212 & 1217 Amherst Street, Lots 2, 1824, 1210, 1211 & 1218 Wood Street, and Lots 1219-1223 Stack Street, Fremantle. The total area of this precinct is approximately 4ha.

The land in this precinct is privately owned and is used for a range of industrial and commercial activities including container storage and transport, automotive wrecking, boat building, mechanical engineering, truck haulage and storage, automotive engine repair and cabinet making. The built form ranges in type and age and comprises mostly warehouse buildings with various 'add-ons' and other supporting structures.

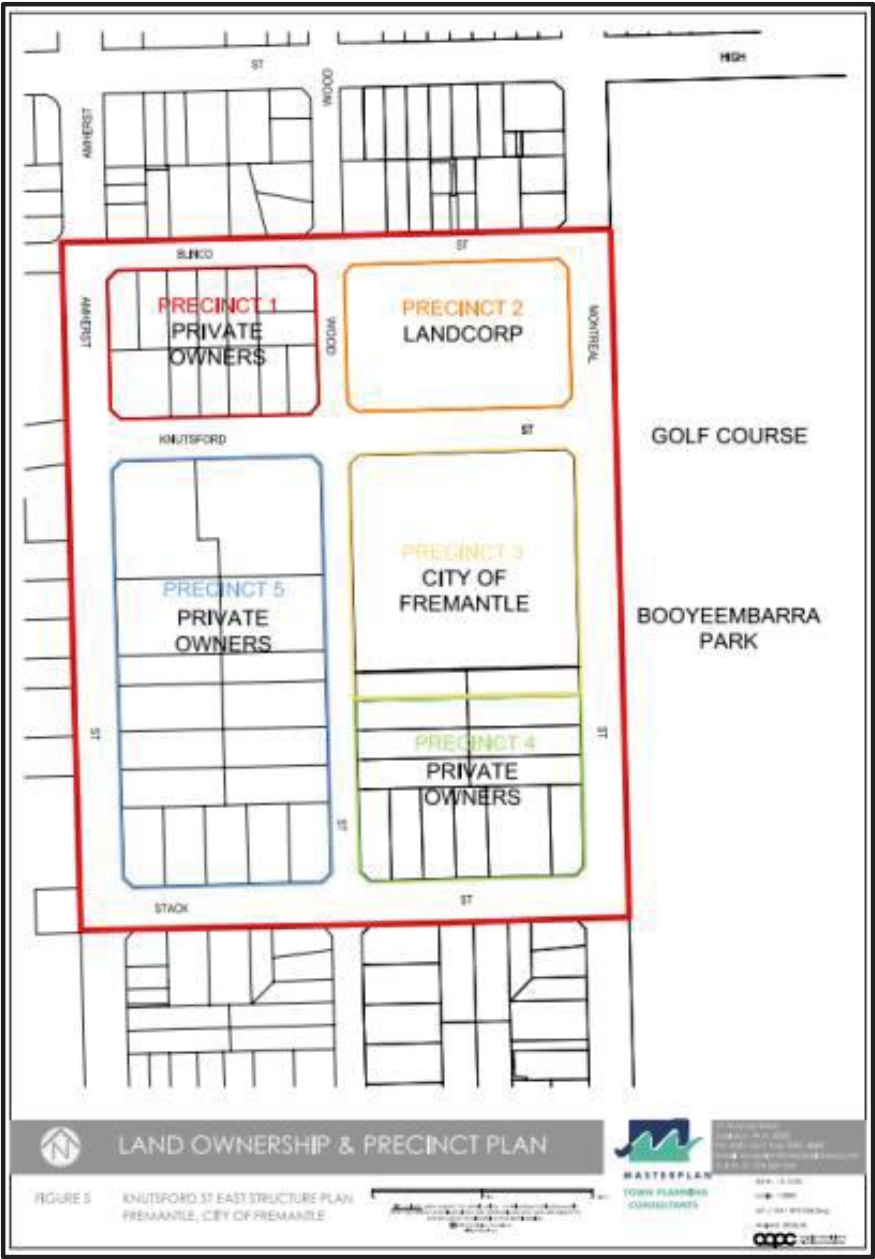


Figure 5 – Precinct Diagram

2.3 STRUCTURE PLAN LAND USE OVERVIEW

2.3.1 General

The structure plan aims to accommodate, as best as possible, the aspirations of the City of Fremantle, the landowners and the local community. It balances the planning objectives identified above with the City's and the WAPC's policies and guidelines.

A steering committee, comprising representatives of each of the landowner groups within Precincts 1-4, was formed in June 2004 and meetings were held in September and November 2004, and January and February 2005 to assist the preparation of the structure plan by Masterplan Consultants WA Pty Ltd.

Precinct 5 was represented by Greg Rowe and Associates, who had been commissioned to prepare a structure plan for this land parcel. Various meetings and liaison took place throughout September, November and December 2004, and January and February 2005, between the two representatives to ensure that the proposals within each area were consistent and to facilitate the preparation of a comprehensive structure plan for the area.

The various components of the structure plan for precincts 1-5 are outlined below and shown in Figure 6 – Structure Plan.

2.3.2 Interface Considerations

Special consideration must be given to the interface between the structure plan area and existing (and/or proposed) development or land uses on adjoining land.

Land to the north of Blinco Street and south of Stack Street is generally characterised by residential development, comprising older housing stock. In accordance with the current zoning, the land can be developed at a density of 25 dwellings per hectare (R25). However, existing development is typically single residential at a lower density than is presently available.

It is anticipated that as development occurs in the subject land and the SSSP area to the west, improving land values will provide an impetus for redevelopment of the existing residential areas to the north and south of the subject area to maximise the capacity inherent in the residential density coding currently applying in these areas.

This will result in the further development of additional dwellings within the existing residential areas than currently exists. The resultant urban development will be compatible with that proposed under this structure plan in terms of physical density and built form. To ensure this, development adjoining existing residential areas should demonstrate an appropriate interface and transition.

Land to the west of Amherst Street has historically been used for industrial purposes, but is

proposed to be developed for residential in the form of grouped and multiple dwellings and mixed use purposes, in accordance with the approved SSSP.

This structure plan proposes adaptable residential frontages to Blinco Street, Stack Street and Amherst Street, which will generally respect the scale of existing housing and proposed residential development on the opposite sides of the streets.

This will be achieved by the requirement for that portion of development fronting these streets to be generally 2 storeys at the street interface with any additional storeys set well back from the street. It must also be demonstrated that the development will not impact on the amenity of surrounding areas with respect to overlooking and overshadowing.

Height and density bonuses will not be permitted on the sites facing Stack and Blinco Streets

There is a substantial physical separation between the development on the opposite sides of Blinco Street, Amherst Street and Stack Street as a result of the wide road reserves and building setbacks. The landscaping of the road reserves will serve to ease the transition from the existing to the proposed new development in the structure plan area and provide an attractive interface.

Higher density residential development with a minimum R60 and a maximum R100 and a building height up to 4 storeys is provided for within the structure plan area. Development adjoining established residential areas is to ensure an appropriate interface with existing residential areas and transition from these areas to more dense development towards central parts of the Structure Plan area.

Development higher than 4 storeys will be considered in the areas of the structure plan not facing from Stack and Blinco Streets, Any additional height would be subject to achieving specific conditions as set out in Table 1 and must be justified in the context of the overall scale, bulk and design of the building. In these cases, it must be demonstrated that the development will not impact on the amenity of surrounding areas with respect to overlooking and overshadowing.

The SSSP provided for a mix of land uses, including home businesses and mixed use - residential and small scale commercial, fronting Knutsford Amherst Street, immediately opposite Precincts 1 & 5 of the structure plan. This land use mix was intended to address the existing development on the opposite side of Amherst Street (industrial) and also take into consideration the redevelopment potential of this area. The provision, is compatible with the development proposed for the Swanbourne Street Structure Plan and will assist in sustaining the commercial uses proposed therein.

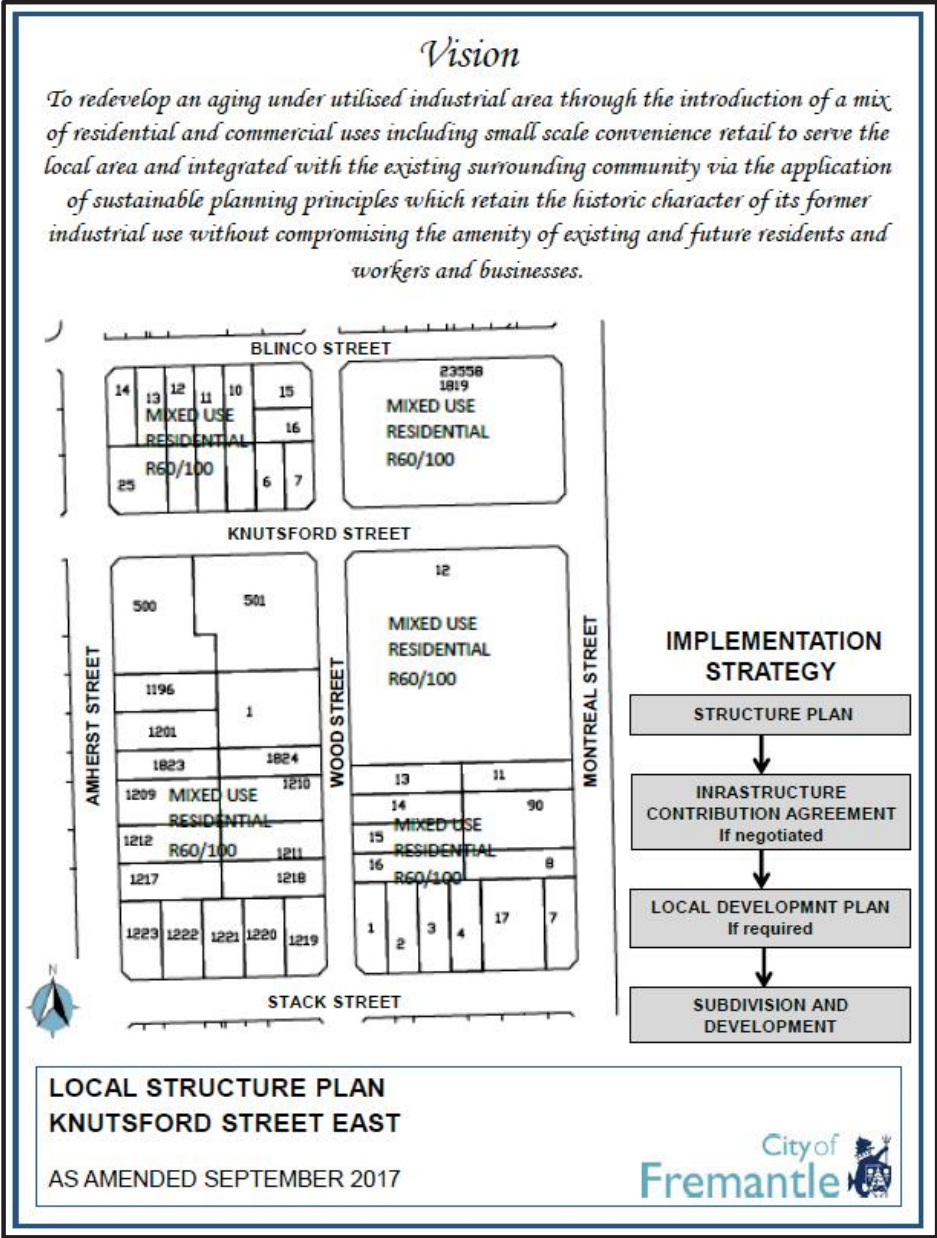


Figure 6 – Local Structure Plan

2.3.3 Residential Density

The structure plan seeks to achieve diversity in housing choice by providing for a range of housing types, including multiple dwellings (studios and apartments) and mixed use development (non-residential uses integrated with residential development). This will ensure that the needs of a wide range of the community are met, in accordance with the objective and principles of the structure plan.

The diversity of housing types are provided through the allocation of a range of medium densities over the subject land – from R60 to R100. The maximum residential density code applicable will be R100

Landowners and developers will need to demonstrate to the satisfaction of the Council, that they meet two or more of the criteria in Table 1 before a density exceeding R100 or height above 4 storeys will be considered. Such development will be considered (subject to Council approval) for exceptional proposals. For example a proposal would need to demonstrate leading edge sustainability and/or exceptional architectural merit and/or offer special amenity or affordability.

2.3.4 Non-Residential Land Uses

As the subject land is located only 1km from the Fremantle CBD, commercial, entertainment, community, recreational and medical services are available in close proximity. On this basis a neighbourhood centre is not considered feasible.

However convenience retail is permitted anywhere in the structure plan area. There is also an opportunity to create a community focal point at the eastern end of Knutsford St, possibly incorporating a redevelopment of the golf course club house. In order to maintain some of the industrial character and quirkiness of the area, the opportunity also exists (and is in fact encouraged) for other uses to be incorporated throughout the structure plan area which are compatible and can be combined with residential activity. This includes commercial and business uses, like offices and consulting rooms as well as cottage industry, light industry and hospitality uses, provided there is minimal nuisance to residential uses. To encourage this adaptable ground floors are required to have 4.2m ceilings and universal access.

The Structure Plan and Local Planning Scheme 4 provides for existing approved industrial land uses to be afforded non-conforming use rights and permitted to continue. However, the structure plan retains a strong emphasis on redevelopment, with the permitted and discretionary land uses falling within the residential and commercial/mixed use and light industrial categories as per Table 1.

The Mixed Use/Residential designation provides for and encourages the integration of non-

residential uses with residential development. Where discretionary land uses are proposed as part of any development, including mixed use development, the development would be subject to the 'D use provisions of LPS 4.

Where industrial land uses are to remain, the continuation of these uses will need to be acknowledged by the new uses or residences on or adjacent to existing industrial sites.

This may mean that development is staged so as to allow relocation to take place or buildings are designed and constructed so that noises can be attenuated and memorials are placed on the titles of lots to notify purchasers of the existence of these activities. It may also be appropriate for new residential and business design and operations to adapt to ensure compatibility with existing uses.

TABLE 1. LAND USE AND DEVELOPMENT REQUIREMENTS¹

PERMITTED LAND USES	DISCRETIONARY LAND USES ²	DENSITY (INCLUDING BONUSES)	BUILDING HEIGHT AND BUILT FORM
Single dwellings, Grouped dwellings, Multiple dwellings, Residential Building, Aged or Dependent Persons Dwellings, Home Business, Home Occupation, Home Office, Home Store, Bed and Breakfast, Health Studio, Tourist Accommodation, Family Day Care Centre, Hardware Store, Office, Convenience Store, Lunch Bar, Consulting Rooms, Cottage Industry, Civic Use.	Garden Centre, Market, Nursery, Club Premises, Liquor Store, Public Amusement, Restaurant, Warehouse, Community Purpose, Education Establishment, Public Utility, Exhibition Centre, Medical Centre, Service Industry, Child Care, Vet Consulting Rooms, Shop, Light Industry (only uses that do not create excessive noise and are compatible with surrounding residential uses will be allowed	Maximum permitted residential density is R100 unless exceptional development potential can be justified. Height and density bonuses will not be permitted on the sites facing Stack and Blinco Streets An increase in height shall only be applied at the discretion of Council as a bonus provision for development proposals that incorporate two or more of the following elements: (a) Conservation of a building, to Council's satisfaction, for either mixed use or residential purposes that is considered by Council to have architectural, social or cultural significance and represents a desirable built form for the development area. (b) Developments that clearly demonstrate the application of leading edge sustainability initiatives which are demonstrably measurable as being above business as usual standard at the time of the proposal and are particularly designed to substantially reduce water usage and increase energy efficiency. (c) Provision of a mixed use development incorporating at least one storey of a permitted or discretionary non-residential use as outlined in columns 1 & 2 of Table 1 (not including requirements for adaptable ground floor space.) The bonus additional residential floor space above 4 storeys will be capped at an area equivalent to the NLA of non-residential uses provided (d) Provision of a proposal of exceptional architectural merit as advised by the City's Design Advisory Committee. (e) Provision of significant public access and amenity (beyond Public Open Space requirements) (f) Provision of affordable housing* and/or affordable space for artists and /or business incubation (not including requirements for adaptable ground floor space.) The bonus additional residential floor space above 4 storeys will be capped at an area equivalent to the NLA of the affordable spaces or housing provided *(as defined in Schedule 1 of the City's Local Planning Scheme #4 and it's successors)	Maximum overall building height of 4 storeys. A minimum of 2 storeys is applicable for all development. Development towards Stack and Blinco Street should be generally 2 storeys at the street interface with any additional storeys set well back from the street. It must also be demonstrated that the development will not impact on the amenity of surrounding areas with respect to overlooking and overshadowing. All ground floors to be designed in the form of adaptable buildings. (i.e. ground level floor-to-ceiling height minimum 4.2m with commercial standard 'front door' access).

¹ Reference should also be made to the provisions of LPS 4 and any Council Policies which may apply.

² Discretionary land uses shall be dealt with in accordance with the 'D' use provisions of LPS 4. All other land uses are not permitted.

2.4 PUBLIC OPEN SPACE

The WAPC normal requirement in residential areas is that, where practicable, 10% of the gross subdivisible area be given up free of cost by the subdivider and vested in the Crown under the provisions of Section 152 of the *Planning and Development Act, 2005* as a Reserve for Recreation.

In terms of the location and distribution of public open space, the Commission favours an overall balance between incidental open space, readily accessible to all residents, and recreational open space in larger units suitable for active leisure pursuits. The advice of the local government is considered in this regard. This approach is confirmed within the latest version of *Liveable Neighbourhoods*.

The Commission recognises that the provision of land for public open space may not be suitable in all cases, on the basis that the area would be of insufficient size for practical use, there is already sufficient public open space in the locality and/or public open space is planned in another location. In these cases, and in accordance with the provisions of the *Planning and Development Act, 2005*, the Commission may allow the provision of cash-in-lieu of the provision of land.

It is considered appropriate to provide cash-in-lieu of the provision of land for public open space within the structure plan area on the following basis:

- The immediate area is provided with abundant passive and active open space areas, most particularly:
 - Booyeembarra Park to the east – active and passive recreation, including parkland and a skate park;
 - Stevens Reserve to the west – active and passive recreation, including sporting and playground facilities, and;
 - Monument Hill to the west – passive recreation, including seating and shade trees.
- Additional open space is planned and allocated in the adjoining SSSP area. The public open space areas are intended for passive and active use, with some areas proposed to retain parcels of established *agonis flexuosa* (WA peppermint) and *Acacia Cyclops* (wattle). An area of generally flat, cleared land will also be provided for the enjoyment of new and existing residents in this area.
- The structure plan also identifies the potential for a “green pathway” which will serve to link the existing and proposed open space and residential development areas. This “green pathway”, incorporating streetscape improvements could be established within the wide road reserve of Knutsford Street, providing a safe, usable and attractive area for pedestrians to travel to and from community and shopping facilities.

Accordingly, the structure plan provides for the public open space requirement to be met principally through the provision of cash-in-lieu to be used for green links, streetscaping and enhancing existing POS

This does not preclude consideration being given to the allocation of land for additional POS where a developer chooses to do so at the subdivision stage. In these circumstances, POS may take the form of drainage swales and may be used to protect limestone outcrops, provide viewing points, access-ways and green links to improve integration and permeability across the combined Swanbourne Street and Knutsford Street East Structure plan areas.

The amount of money or land to be provided would likely be based on the equivalent value of the land which would have been given up, however this will ultimately be determined by the Council and the Commission. A variation to the standard 10% contribution may be sought on the basis that there is sufficient developed POS areas within walking distance from the subject land.

It is noted that some of the public open space surrounding the structure plan area are designated bushfire prone areas as determined by DFES in accordance with SSP3.7 Planning in Bushfire Prone Areas. Compliance with SPP 3.7 will be dealt with later in the document.

2.5 VEGETATION RETENTION

The structure plan seeks to encourage the retention of existing vegetation in POS areas, or within a development site through the careful placement of buildings and design of landscaping areas. At the subdivision or development, developers will be required to identify any vegetation worthy of retention and any opportunities to incorporate existing landscape features (including limestone rock outcrops) into subdivision and development proposals.

2.6 BUILT FORM

The built form will be guided by the site's former industrial heritage, with the use of building materials which reflect the site's former industrial character. This includes, but should not be limited to, the use of materials made from steel, glass, iron and wood.

Building height is controlled through maximum height restrictions in Table 1, A minimum height requirement is also prescribed to facilitate a vertical mix of residential and commercial uses, making provision for (future) commercial uses at ground level, providing for active street frontages, and residential apartments, providing surveillance of the street.

The City may at some point create formal design principles for the combined Swanbourne St and Knutsford Street East Structure plan areas. In any event the City will encourage new

buildings to be designed to a high standard and to reflect the industrial character of the area. Buildings will be encouraged to be adaptable for a range of uses to accommodate the different needs of residents over time. The adaptable nature of the buildings will assist in achieving a more sustainable community and the incorporation of environmental sustainability performance criteria will help to facilitate best practice sustainable development.

Reference to adaptable buildings and adaptable units in the structure plan and any subsequent Design Principles should be interpreted to imply that the buildings or units be configured to allow occupation for both non- residential uses, and residential purposes and that incorporate the following design features:

- Building design to reflect a warehouse or mixed development style.
- Adaptable ground floor development which creates active uses at the street front with ground level parking behind will be permitted.
- Adaptable buildings are to be designed in a manner so as to comply with the relevant standards under the Building Code of Australia and other relevant legislation to ensure that each adaptable unit can be utilised under a wide range of building classes associated with the residential and non-residential uses listed in Table 1.
- Adaptable units being identified within a suitable Strata Management Statement. The purpose of the Management Statement is to ensure that mixed use purposes can be developed and operate without limitations being imposed either by the adjoining residential landowners or affected Strata Company.

2.7 MOVEMENT SYSTEMS

2.7.1 Road System and Network

Existing roads in and surrounding the subject land are described as follows.

Knutsford Street provides pedestrian access to and local vehicular access to adjacent land uses. The street terminates at the golf course to the east. Vehicles cannot access Hampton Road to the west, although this is a key crossing point for pedestrians and cyclists to and from the Fremantle City Centre. Knutsford St # will take most of the traffic into the structure plan area from the west.

Amherst Street provides a north-south connection between High Street and Watkins Street and is restricted to left-in/left-out at High Street. No changes are proposed to this intersection, which will take most of the traffic from the north and east into the structure plan area.

Stack Street is a local access street linking Amherst Street, Wood Street and Montreal Street.

Stevens Street is considered as a local district distributor road and links Carrington Street through to Hampton Road, with traffic flows at Carrington Street restricted to left-in/left-out. The intersection with Swanbourne Street is controlled with a roundabout.

High Street lies to the north of the structure plan area and is a primary regional distributor linking Fremantle, Stirling Highway, Carrington Street and Leach Highway. The upgrade of High St is likely to have a significant impact on future traffic movements on this link. Access to High Street is currently unrestricted at Montreal Street and Chalmers Street. Amherst Street has restricted egress, although is it the preferred point of access to the structure plan area for traffic travelling from the east and north (High Street/Leach Hwy and Stirling Hwy).

Montreal Street represents the eastern boundary of the structure plan area and includes the golf course and Booyeembarra Park on its eastern side. Montreal Street terminates at High Street to the north and does not provide a direct link to South Street. The intersection at High Street is currently uncontrolled and the queuing of traffic seeking to turn right onto Stirling Hwy may serve to detract traffic from using Montreal Street. The upgrade of High St is likely to result in restricted or no access from High Street to Montreal St.

Riley Consulting, Traffic Engineers, were commissioned to undertake a traffic and transport impact assessment, which is attached as Appendix 2. The assessment concludes that existing development on the subject land presently generates about 2,195 vehicle movements per day, based on expected trips for general industrial land uses and an estimate of the floor space of development.

The proposed development, based on maximum yields for residential development at the original densities indicated (without density bonuses), is expected to generate 2,780 trips per day. This means that the redevelopment of the structure plan area is expected to increase local traffic flows by about 585 trips per day. While an increase, this is not significant and it is not considered to have an adverse impact on the function of these roads (which are currently quite underutilised) or the amenity of adjoining land uses.

Accordingly, the structure plan proposes to utilise the existing road network of the locality and does not propose any major changes to the roads and their treatment

The existing road pattern within and surrounding the subject land forms a traditional grid based system. Such a system is promoted by the WAPC in Liveable Neighbourhoods as amongst other elements, it enables traffic volumes to be dispersed rather than focused upon a particular road, therefore minimising net traffic impacts. This road system is proposed to be extended within the area, if new roads are proposed, to facilitate integration of the new community with the existing surrounding community, provide flexibility and ensure development is outwardly focused.

The existing roads have been constructed to an industrial standard. While they show no major signs of disrepair, and the additional traffic volumes and change in the type of traffic is not expected to generate a need for major upgrading or modifications to intersections, the roads

and associated kerbing will need to be developed to a residential standard to reflect the change in use.

The use of rear laneways should be considered as part of the subdivision design stage as this will allow internal permeability without attracting through traffic, whilst also enhancing the streetscape and pedestrian/cyclist connections.

Overall, the analysis of traffic generation suggests that the redevelopment of the subject land will not have any significant detrimental effect upon the residential amenity of local streets and access to and from the local area should not be compromised. . An update of traffic analysis may be required to confirm this before major development occurs.

2.7.2 Public Transport

The subject area is serviced by public transport with an existing bus route (No. 502) scheduled along Amherst Street which connects directly to the Fremantle Train Station. Bus stops are located in Amherst Street just to the north of the intersection with Stack Street, meaning all but a small section at the north east corner of the structure plan area is within a comfortable five minute walk (400m) of the bus stop. This will help sustain the residential redevelopment of the locality by providing direct and regular public transport access to the Fremantle City Centre and wider Metropolitan transport network.

2.7.3 Pedestrian and Cyclist Movement

Knutsford Street currently provides a direct link between open space and recreational areas to the west and east. Pedestrians currently use the wide road reserves to walk between these open spaces, while cyclists use the road pavement. There is a potential to use Knutsford Street as a green link as well as to accommodating pedestrians and cyclists. Pathways are also proposed for Amherst, Stack, Wood, Montreal and Blinco Streets. The paths will link with existing pathways, taking pedestrians and cyclists to the City Centre and along Fothergill St to the Old Fremantle Prison. The provision of other pedestrian networks, could provide greater opportunities for pedestrian movement within and through the structure plan area.

2.8 SERVICING OVERVIEW

Ewing Consulting Engineers have investigated relevant engineering items pertinent to the subject land. A copy of their report is appended (Appendix 3) and is summarised as follows.

2.8.1 Road Network

Existing roads within the structure plan area are generally constructed to minimum commercial standards. These standards are not, however, sufficient to meet expected standards for residential development and therefore upgrading will most likely be required. As a minimum, this

is expected to comprise re-sheeting and re-kerbing of the road surface. The provision of footpaths and dual use paths is also expected to be required.

2.8.2 Sewerage

Sewerage requirements vary between the different precincts. Precinct 1 is essentially easily serviced by existing sewer infrastructure. Precinct 2 can be connected to the existing network via a minor extension to the network, whereas Precinct 3 will require a major extension. However, this could be influenced by the timing of the minor extension needed to service Precinct 4. Like Precinct 1, Precinct 5 has the potential to connect into the existing network with minimal external extension.

2.8.3 Water Supply

Precincts 1 and 2 can be connected to the existing water reticulated network without requiring any upgrading to this infrastructure. Precincts 3, 4 and 5 will require major upgrades of existing water reticulation mains in Blinco and Amherst Streets plus work to extend the network to connect to Precincts 3, 4 and 5. There is also a possibility that parts of the water mains in the surrounding area may also require upgrading to enable a reticulated service to be provided to Precincts 3, 4 and 5.

2.8.4 Electricity

The structure plan area is currently connected to the power network. Redevelopment is likely, however, to see a requirement that future electricity infrastructure be undergrounded.

2.8.5 Telecommunications

The subject land is currently fully serviced by a traditional telecommunications network which will remain available to service future residential users.

2.8.6 Drainage

Further consultation was undertaken with the City's engineering Department in regard to the future drainage of the land. The City has advised that drainage sumps are not acceptable as a means of storm-water disposal. Application of latest best practice water sensitive design solutions, are the preferred solutions for accommodating drainage in this area. An integrated Drainage Management Plan for the structure plan area will encompass best management practices in water sensitive urban design.

2.9 PLANNING IN BUSHFIRE PRONE AREAS

State Planning Policy (SPP) 3.7 requires strategic planning proposals relating to land with a bushfire hazard level (BHL) and Bushfire Attack level (BAL) above low to comply with the policy. A portion of the structure plan area has been designated as a Bushfire Prone Area by Department of Fire and Emergency Services (DFES) affected by Booyeembarra Park.

Taking into account the individual site circumstances and the presence of a 30 metre wide road separation between the bushland and the subject site, a desktop assessment suggests that a BAL assessment finding above 29 is unlikely. Therefore BHL or BAL assessments are not required at structure planning phase. BHL/BAL assessments will be required to confirm this and any site based mitigation measures at Subdivision or Development Application stage, whichever comes first. Notwithstanding the City may choose to undertake more strategic BHL/BAL assessments prior to development commencing.

2.10 POPULATION AND EMPLOYMENT

2.10.1 Population

The expected population yield from the development is described in Table 2 and is based on a predominantly residential development scenario.

The number of new dwellings and population projections are indicative only and based on the area of the land, the maximum density of development permitted (without density bonuses) and average occupancies 1.6 persons per dwelling for multiple dwellings and mixed use development).

TABLE 2. ESTIMATED DWELLINGS AND POPULATION UPDATE

	DENSITY 1	LOT SIZE	DWELLINGS 2	POPULATION 3
Area totals	Min R60 Max 100 Average say R80	Total area 11.4ha approx. Lot sizes as per RCodes and Multi unit housing codes	912 dwellings (Previously 760)	1,459 persons (previously 1,194)

Notes:

- 1 Approximate only.
- 2 Based on 1.6 persons per dwelling for multiple dwellings and mixed use development.
- 3 Includes 20% of area allocated for mixed use development.

2.10.2 Employment

The existing industrial area provides for some local employment and to a degree sets the

character of the area. The viability of this industrial area is questionable, however while some industrial activities may continue in the short term, in the longer term the employment generating activities will be limited to cottage industry and small scale commercial and service industries.

The land uses proposed will service a broad residential catchment. The land is adjacent to a regional park and provides good traffic and public transport access providing opportunities for employment generating commercial uses. Accordingly, the structure plan provides for a range of small scale industrial, creative and commercial uses, which are compatible with the residential - mixed use nature of the area.

These opportunities include the provision of residential - mixed use and commercial development throughout the area (including offices and shops), allowance for home businesses to be established throughout the structure plan area, including home office, small scale retail, small scale light industrial, creative and hospitality development

2.11 COMMUNITY INFRASTRUCTURE AND BENEFITS

The site's proximity to the Fremantle CBD provides all necessary community, recreational, social, entertainment and retail facilities and services within close proximity. Development of the site generally in accordance with the structure plan will make the following contribution to community infrastructure:-

- Build on industrial character while removing inappropriate activities from the area and remediating sites. or upgrading unattractive but compatible industrial activities
- Remove the barrier effect of long established industrial activities and provide for improved connectivity with the surrounding residential area.
- Enhanced, pedestrian cyclist and vehicular permeability, fostering community interaction.
- Open street development interfacing with existing residential development (as opposed to a walled estate) - again, contributing to social interaction and community enhancement.
- Provision of pedestrian/cyclist links between existing and proposed recreational and open space areas and with the Fremantle City Centre.
- Provision of a range of new housing opportunities for new residents
- Provision for mixed use – residential and commercial development which will provide presently unavailable commercial services to the general area.

3.0 IMPLEMENTATION

3.1 STRUCTURE PLAN

In accordance with the requirements of the City of Fremantle Local Planning Scheme No. 4 (LPS 4), a structure plan must be prepared to guide subdivision, land use and development prior to approval of a development application in a Development Area. Any development applications received prior to adoption of a structure plan will be assessed by the Council under the mixed use provisions of the Scheme. Council recommends that any applications for residential development and subdivision be deferred until a structure plan is adopted.

This structure plan has been prepared in accordance with the requirements of LPS4. The structure plan is only required to be considered by the Commission if it proposes the subdivision of land. In this case, the structure plan does not propose subdivision, although subdivision is contemplated.

The structure plan comes into effect on the day on which it is adopted by the Council or the Commission.

3.2 INFRASTRUCTURE CONTRIBUTIONS

While the structure plan has been prepared to minimise, as much as possible, the need for individual owners to be reliant upon other owners in order for development to proceed, there are a number of items that may require co-ordination and co-operation between the multiple owners in order to facilitate development of the subject land. These items primarily relate to the costs associated with extending water, sewerage and electricity mains to the land to service the new development, the upgrading of roads and provision of cash-in-lieu of public open space.

As different parts of the subject land have different requirements and individual owners different development programmes the onus is on individual landowners to demonstrate there is or will be adequate servicing or to arrange any upgrades. There is the opportunity for individual owners to enter into voluntary agreements with neighbouring landowners in order to share costs.

Any cost sharing mechanism should be put in place prior to subdivision and development. The mechanism would need to address the following matters:

- Timing of development – The preferred staging of development based on the efficient servicing of the land would need to be considered alongside the intentions of the individual landowners.

- Pre-funding of infrastructure – There may need to be an ability for an individual landowner to pre-fund works to enable development to proceed.
- Allowance should be made for the pre-funding body to be reimbursed for the development costs that it has borne on behalf of other landowners.

3.3 PREFERRED MECHANISM

There are a number of different mechanisms available for State Government, Local Government and private landowners to facilitate redevelopment and distribution of development costs.

One mechanism for the Knutsford Street East Structure Plan area is an Infrastructure Contribution Agreement between the Local Government and one or more affected landowners. The City has explored this option and chosen not to pursue it in favour of encouraging voluntary landowner agreements.

3.4 SUBDIVISION AND/OR DEVELOPMENT

The subdivision of land requires the approval of the Commission and all applications are to be made on a prescribed form available from the Department of Planning, Lands and Heritage.

The City of Fremantle administers LPS 4 and, in accordance with that scheme, is the authority responsible for granting approval to development within the structure plan area. The detailed requirements for submitting a Planning Application, Demolition License and Building License can be obtained from the City.

Approval for either a subdivision or development proposal will be issued subject to appropriate conditions which will reflect standard Commission and City requirements but also the endorsed structure plans.

Subdivision and development plans shall include sufficient information to facilitate the ultimate coordinated development of land on that site and demonstrating context and integration of with other sites within the structure plan area and adjoining land.

Subdivision and development plans should be consistent with the structure plan vision objective, principles and requirements, LPS 4, Council policies, Commission policies and procedures and may be required to include:

- Distribution of land uses,
- Distribution of residential densities,
- Justification for any development concessions or exemptions sought as it relates to plot ratio, site coverage, car parking, etc,

- Layout of any subdivision proposed,
- Existing buildings and notations as to whether the building is to be retained and converted for residential and/or mixed use,
- Building envelopes for any proposed new buildings,
- Investigation of on-street car parking in appropriate locations,
- Areas of contamination and proposed remediation works,
- Existing and proposed services,
- Areas for drainage to be accommodated on-site,
- Design Guidelines (where required) to guide and address sustainable built form outcomes, and
- Such other information considered relevant by the Council.

In order to determine the extent of any site contamination and the necessary works to remediate the site, further detailed site investigations must be undertaken. The DWER will need to be satisfied, in all cases that the land is not subject to contamination and/or any contamination has been removed to their satisfaction. Reference should be made to the limited preliminary site investigation completed by Parsons Brinkerhoff, Environmental Consultants, as part of the structure plan. Parsons Brinkerhoff has identified indicative investigative works that should be used as a guide to the potential scope of works required for each property in the structure plan area.

If required, subdivision and development plans will be supported by detailed traffic and transport reports documenting the rationale for the road hierarchy and any potential parking demand. This may also be required to include a supplementary report that addresses off-site impacts such as intersection capacity and reduced service levels as a consequence of any proposed development

Plans shall also address the staging of the development and the manner in which the land is to be serviced.

In addition to the identification of buildings to be retained, plans will identify existing industrial land uses which are to continue and comment on their impact on the redevelopment in the structure plan area.

A heritage assessment of all existing buildings may need to be undertaken at this stage and an Aboriginal Heritage Survey may also need to be undertaken to confirm that there are no Aboriginal sites on the land which would be disturbed as part of the redevelopment. No sites have been identified on relevant databases affecting the subject area and, given its history of ownership, development and use, identification of sites within the structure plan area is considered unlikely. The Department of Indigenous Affairs has, however, prepared advice for developers and due regard to this advice is recommended.

CONCLUSION

The Knutsford Street East Structure Plan has been prepared to respond to the obligations for the Development Zone under Local Planning Scheme No.4 and to provide guidance for the redevelopment of this historic industrial area.

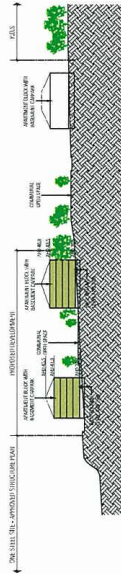
It has been prepared to establish the vision and provide general guidance as to the work necessary and the nature of the ultimate form of development which occurs on the subject land. It has addressed the context of the proposed redevelopment within the wider locality as well as the implications for this redevelopment.

This structure plan establishes a vision and a process to implement that vision responding to the unique challenges of the site and its ownership pattern.

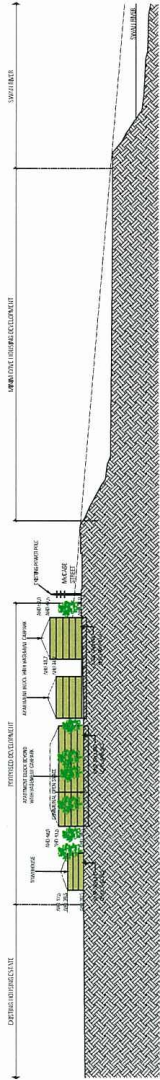


ALTERNATIVE PROPOSED STRUCTURE PLAN - MODIFIED 25/07/08
LOTS 16, 18, 19, 315, 326 MCCABE STREET, NORTH FREMANTLE

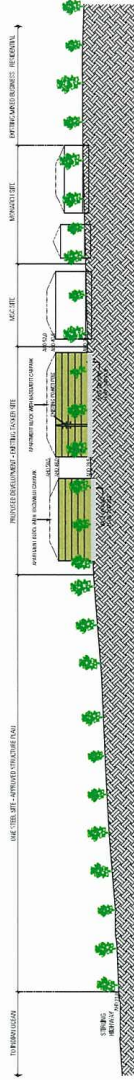




EAST - WEST SITE SECTION
SECTION A - A



NORTH - SOUTH SITE SECTION
SECTION B - B



DIAGRAMMATIC SOUTH ELEVATION TO MCCABE ST

ALTERNATIVE PROPOSED STRUCTURE PLAN - MODIFIED 25/07/08

LOTS 16, 18, 19, 315, 326 MCCABE STREET, NORTH FREMANTLE



REGISTERED ARCHITECT
WEST AUSTRALIA



Planning and Development Act 2005

IN THE MATTER OF:

McCabe Street Joint Venture
-and-
City of Fremantle

Applicant

Respondent

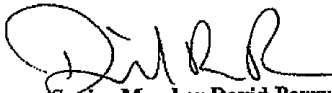
Matter Number: DR 218 2008
Application Lodged: 9 June 2008

ORDER

On the application heard on 9, 10, 11 and 12 December 2008 before Senior Member David Parry, Member Marie Connor and Senior Sessional Member Antony Ednie-Brown, it is on 3 March 2009 ordered that:

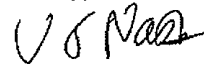
1. The application for review is allowed.
2. The decision of the respondent made on 25 June 2008 that it is not prepared to adopt the structure plan in relation to Lot 315, Lot 326 and Lot 18 McCabe Street, North Fremantle is set aside and a decision is substituted that the 'Alternative Proposed Structure Plan' dated 25 July 2008 is adopted under cl 6.2.9.1 of the *City of Fremantle Local Planning Scheme No 4* subject to the following conditions:
 - (a) The building in the location referred to as Apartment 1 on the structure plan must not exceed a maximum wall height of 46 metres AHD and a maximum roof height of 50.5 metres AHD.
 - (b) The building in the location referred to as Apartment 2 on the structure plan must not exceed a maximum wall height of 47.5 metres AHD and a maximum roof height of 52 metres AHD.
 - (c) The building in the location referred to as Apartment 3 on the structure plan must not exceed a maximum wall height of 44.2 metres AHD and a maximum roof height of 49 metres AHD.

- (d) The building in the location referred to as Apartment 4 on the structure plan must not exceed a maximum wall height of 41 metres AHD and a maximum roof height of 45.5 metres AHD.
- (e) The building in the location referred to as Apartment 5 on the structure plan must not exceed a maximum wall height of 43.5 metres AHD and a maximum roof height of 48 metres AHD.
- (f) The building in the location referred to as grouped dwellings on the structure plan must not exceed a maximum wall height of 39.5 metres AHD and a maximum roof height of 42.5 metres AHD.


Senior Member David Parry



I certify the foregoing to be a true
and correct copy of the original



State Administrative Tribunal
Date: 3.3.09

Swanbourne Street



Prepared for DevelopmentWA
Prepared by Taylor Burrell Barnett

DOCUMENT STATUS

	Revision	Reviewer	Date Issued
Prepared By: Taylor Burrell Barnett Town Planning and Design Level 7/160 St Georges Terrace PERTH WA 6000 Phone: 9226 4276 admin@tbbplanning.com.au	0	ST	April 2014
	1	ST	May 2014
	2	ST	14 May 2014
	3	ST	4 July 2014
	4	ST	16 July 2014
	5	ST	18 Dec 2014
	6	ST	8 Sept 2015
	7	ST	6 Mar 2025

CERTIFICATION OF AGREED STRUCTURE PLAN

CERTIFIED THAT AGREED SWANBOURNE STREET LOCAL STRUCTURE PLAN
WAS ADOPTED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON

.....

Signed for and on behalf of the Western Australian Planning Commission

.....

an officer of the Commission duly authorised by the Commission pursuant to section 57 of the
Western Australian Planning Commission Act 1985 for that purpose, in the presence of:

..... Witness

..... Date

AND BY RESOLUTION OF THE COUNCIL OF THE CITY OF FREMANTLE ON

.....

AND THE SEAL OF THE MUNICIPALITY WAS PURSUANT TO THE COUNCIL'S RESOLUTION HEREUNTO AFFIXED IN THE PRESENCE OF:

.....

Mayor, City of Fremantle

.....

Chief Executive Officer, City of Fremantle

..... Date

TABLE OF MODIFICATIONS

Modification No.	Description of Modification	Date Endorsed by Council	Date Endorsed by WAPC

Executive Summary

This Local Structure Plan (LSP) applies to Lots 1356 Swanbourne Street, Lot 1737 Knutsford Street, and Lots 1386-1192, 1197-1200, 1207-1208, 1213-1215 and 1725 Amherst Street, and portion of the existing Edmund Street road reserve, in Fremantle. The subject site is approximately 8.9ha in area, bound by Swanbourne Street to the west, Knutsford Street to the north, Amherst Street to the east, and Stevens Reserve and a Western Power switch station to the south.

The site is zoned 'Development' under the City of Fremantle Local Planning Scheme No. 4 (the Scheme). In accordance with the requirements of the 'Development' zone under the Scheme, this LSP has been prepared to guide and facilitate the subdivision and development of the subject site.

This LSP supplants an existing structure plan prepared for the same landholding and adopted by the City of Fremantle in May 2003. The intent of this document is to provide an alternate residential based structure plan within the subject area to guide its future re-development for medium to high density residential development. The updated LSP seeks to update the approved LSP to facilitate proposed design changes and provide an increase in residential density across the site, whilst providing flexibility to respond to market demand.

Part 1 of this report is the statutory section which provides the appropriate mechanics of land use and development control. It is these components which will be binding upon parties through the powers of the Scheme under the *Planning and Development Act 2005*.

Part 2 of this report provides the justification for the proposed development and the regulatory and implementation framework, and provides a detailed analysis of the provisions contained in Part 1. The LSP seeks to balance:

- The need to provide housing density and diversity, including more affordable housing options, in accordance with relevant State planning policies;
- The need for local support uses in a mixed use expansion along Knutsford Street
- The need to create an efficient walkable community which provides surveillance, safety and manages building and site levels through innovative built form responses.

Careful attention has been given to the strategic placement of public open space and tree protection areas for the efficient retention of existing vegetation, and to ensure suitable buffering to existing residences along Swanbourne Street.

The existing vegetation along the western boundary of the site is to be retained where possible. Paths

and access point will be created through the bushland to connect the development with the surrounding residential area and reserves. The bush will be protected and rehabilitated using local native species.

The movement network has been driven by two key objectives; to minimise the external impact of the proposed development while maintaining a high degree of connectivity and integration with the surrounds.

We are pleased to present this Structure Plan to the City of Fremantle and the Western Australian Planning Commission.

STRUCTURE PLAN SUMMARY TABLE

Item	Data	Section number referenced within the structure plan report
Total area covered by the structure plan	8.9 hectares	Part 2, Section 1.2
Area of each land use proposed:		
Residential	5.6 hectares	Part 2, Section 4.3
Mixed Use	0.7 hectares	Part 2, Section 4.5
Minimum dwelling expectation	306 dwellings	Part 2, Section 1.3.3
Minimum residential site density	55 dwellings per site hectare	-
Minimum population	306 x 2 = 612 people	-
Estimated area and % of public open space	1.0416 hectares, 10.3%	Part 2, Section 4.2
Estimated area and number:		
Neighbourhood Parks	1.0085 hectares 1 park	Part 2, Section 4.2
Local Parks	0.0331 hectares 1 park	

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PART ONE STATUTORY SECTION

Local Structure Plan

1

1.

Statutory Section

1 STRUCTURE PLAN AREA

This Local Structure Plan (LSP) applies to Lot 1356 Swanbourne Street, Lot 1737 Knutsford Street, and Lots 1186-1192, 1197-1200, 1207-1208, 1213-1215 and 1725 Knutsford Street, Fremantle; being the land contained within the inner edge of the line denoting the LSP boundary on the Structure Plan Map (refer **Plan 1**).

2 STRUCTURE PLAN CONTENT

This Structure Plan comprises:

Part 1 - Statutory Section

This section contains the Structure Plan Map (Plan 1) and statutory planning provisions and requirements.

Part 2 – Non-Statutory (Explanatory) Section

This section to be used as a reference guide to interpret and justify the implementation of Part 1.

Appendices

Technical reports and supporting plans and maps.

The Swanbourne Street Structure Plan Map (**Plan 1**) indicates:

- The extent and boundary of the LSP area;
- Land use zones and density codings that apply to each block;
- Indicative road layout and primary access points; and
- Locality of public open space.

3 INTERPRETATION

Unless otherwise specified in this part, the words and expressions used in this LSP shall have the respective meanings given to them in the City of Fremantle Local Planning Scheme No. 4 (the Scheme) including any amendments gazetted thereto.

4 RELATIONSHIP WITH THE SCHEME

This Structure Plan is prepared in accordance with Clause 5.2 of the Scheme. In the event of any inconsistency between the LSP and the Scheme, the provisions of the Scheme will prevail.

Pursuant to Clause 3.2 of the Residential Design Codes, the following amendments to the Residential Design Codes meet the Deemed to Comply criteria:

- a) Building height requirements complying with the standards detailed in Table 2 of this LSP.
- b) The local government may adopt a minor change to or departure from the development requirements of this LSP, including the addition of new development requirements, if in the opinion of the Local Government, the change, departure or addition:
 - i) is consistent with the objectives for the relevant zone in which it is situated as detailed in Clause 3.2 of the Scheme; and
 - ii) does not materially alter the intent of this LSP.

5 OPERATION DATE

The LSP comes into effect the date of which it is endorsed by the Western Australian Planning Commission (WAPC), pursuant to clause 6.2.10.2 of the City of Fremantle's Local Planning Scheme No. 4.

The provisions contained within Part 1 of the LSP shall be administered by the WAPC and the City of Fremantle.

6 RESIDENTIAL DENSITY

- a) **Plan 1** (Structure Plan Map) defines the broad residential density ranges that apply to the indicative locations within

the LSP. Lot specific residential densities are to be assigned in accordance with a Residential Density Code Plan approved by the WA Planning Commission.

- b) Subdivision and development within the LSP area shall be in accordance with a Residential Code Plan endorsed by the WAPC.
- c) A Residential Code Plan shall be lodged with the WAPC for its endorsement, prior to or in conjunction with any application for subdivision. The plan is to indicate the R-Code applicable to each lot within the subdivision and shall be generally consistent with the Residential Density Ranges identified on **Plan 1** and the locational criteria contained in Clause 7 of this report.
- d) The Residential Density Code Plan is to include a summary of the proposed dwelling yield of the respective subdivision.
- e) Approval of the Residential Code Plan shall be undertaken at the time of determination of the subdivision application by the WAPC. The approved Residential Code Plan will then form part of this LSP and will be used for the determination of future development applications. Variations to the Residential Density Code Plan will require further approval from the WAPC.
- f) Residential Code Plans are not required if the WAPC considers that the subdivision is for one or more of the following:
 - i) The amalgamation of lots;
 - ii) Consolidation of land for "super lot" purposes to facilitate land assembly for future development;
 - iii) The purposes of facilitating the provision of access, services or infrastructure; or
 - iv) Land which by virtue of its zoning or reservation under the LSP cannot be developed for residential purposes.

Statutory Section

1.

6.1 LOCATIONAL CRITERIA

The allocation of residential densities on the Residential Code Plan shall be in accordance with the following criteria:

a) Residential R40-R80

- i) to provide a range of medium to high density housing alternatives catering for different lifestyle choices and a diversity of household types.
- ii) To provide areas of higher residential density:
 - a. adjacent to high amenity areas such as public open space, and with access to Ocean views.
 - b. adjacent to public transport connections, significant pedestrian and cycle linkages
 - c. to enable protection of existing vegetation where possible.

b) Mixed Use R40 – R80

- i) To provide a lifestyle choice enabling residents opportunities to work from home
- ii) Provide for a mix of support retail, office and commercial uses aligned with the needs of the local community.
- iii) To promote a graduation of development between the major roads and non-residential development along Knutsford Street and medium to higher residential densities
- iv) To provide a range of medium and high density housing alternatives catering for different lifestyle choices, including live/work and affordable housing.
- v) To provide a lifestyle choice enabling residents to live in close proximity to high amenity natural areas.

c) Residential R60 – R100

- i) To provide a range of medium and high density housing alternatives catering for different lifestyle choices and a diversity of household types.
- ii) To provide areas of higher residential density:
 - a. adjacent to high amenity areas such as public open space, and with access to Ocean views.
 - b. adjacent to public transport connections, significant pedestrian and cycle linkages
 - c. to enable protection of existing vegetation where possible.

d) Residential R80 – R160

- i) To provide a range of medium and high density housing alternatives catering for different lifestyle choices and a diversity of household types.
- ii) To provide areas of higher residential density:
 - a. adjacent to high amenity areas such as public open space, and with access to Ocean views;
 - b. adjacent to public transport connections, significant pedestrian and cycle linkages; and
 - c. to enable protection of existing vegetation where possible.

7 PRECINCT PLANNING REQUIREMENTS

This LSP is prepared in accordance with the requirements of the City of Fremantle's Local Planning Scheme No. 4 (the Scheme). The Structure Plan Map (**Plan 1**) is divided into five development precincts. The following land use and development controls,

including **Table 2**, apply and are to be read in conjunction with the Scheme.

7.1 OVERALL PRECINCT

7.1.1 OBJECTIVES

The objectives for the overall Precincts are:

- To provide for housing diversity through a variety of single and grouped housing lot sizes at densities indicated on the Structure Plan;
- To provide residential lots which optimise solar orientation to facilitate passive solar access and the construction of energy efficient dwellings;
- To provide smaller lots/dwellings adjacent to public open space to derive benefit from proximity to informal recreation areas;
- To provide lots/dwellings that overlook parkland areas and streets to maximise passive surveillance opportunities and promote attractive streetscapes;
- To maintain a high level of pedestrian connectivity, amenity and safety, notably through the creation of a green spine linking the bushland regeneration area with the eastern part of Amherst Street; Ensure built form activation and presentation to the streetscape and public open space; and
- Ensure private open space requirements do not compromise the opportunity for a variety of housing product and design, especially on smaller blocks and considering the provision of quality public open space amenity.

1.

Statutory Section

7.1.2 OVERALL DEVELOPMENT CONTROLS

In addition to Table 2, Figure 1 and 2, the following sets out variations to the Residential Design Codes that meet the Deemed to Comply criteria within the Structure Plan area.

STREETSCAPE AND ORIENTATION REQUIREMENTS

ORIENTATION

- a) Where Dwellings are located adjacent public open space reserves they must address the public reserve in terms of entry points, major openings, articulation, materials and detailing and passive surveillance.
- b) North-facing lots are permitted to locate outdoor living areas within the front setback area to take advantage of the northern aspect of the site and shall be constructed to maintain surveillance and activation of the adjoining streetscape.

CORNER LOTS

- c) Dwellings located on corner lots shall address both streets through their design by extending the primary elevation features onto the secondary street elevation where forward of a return fence. Exposed secondary street façade must incorporate major openings.

LOTS ABUTTING PUBLIC OPEN SPACE

- d) Dwellings on lots abutting public open space should be orientated such that they offer passive surveillance over the open space. Major openings and habitable rooms should, where possible, be directed to look onto the open space.

BOUNDARY FENCING

- e) For lots abutting Public Open Space, the developer will construct fencing in accordance with the requirements of the City of Fremantle. The fencing shall be designed such

that it offers surveillance of the neighbouring Public Open Space.

7.2 DEVELOPMENT PRECINCT 1

7.2.1 OBJECTIVES

- a) To provide for a minimum of 40 dwellings within the Development Precinct. Given the strategic nature of the LSP site, target yields have been set for each precinct. An aspirational target yield of 50 dwellings has been determined as an desirable development outcome for Development Precinct 1.
- b) To provide for residential development at a density range of R40-R80 with a variety of housing type and size, to meet the current and future needs of the community.
- c) To provide an appropriate interface along Knutsford Street.

7.2.2 LAND USE

Land Use permissibility shall be consistent with the objectives for the Precinct and generally in accordance with the Residential Zone, and Table 2 – Zoning table of the Scheme.

7.2.3 DEVELOPMENT CONTROLS

As per Table 2 and 3, and Figures 1 and 2.

7.3 DEVELOPMENT PRECINCT 2

7.3.1 OBJECTIVES

- a) To provide for a minimum of 65 dwellings within the Development Precinct. Given the strategic nature of the LSP site, target yields have been set for each precinct. A target yield of 65 dwellings has been determined as a desirable development outcome for Development Precinct 2.

- b) To provide for residential development at a density range of R40-R80 with a variety of housing type and size, to meet the current and future needs of the community
- c) To provide for a variety of land uses and activities which contribute to a vibrant and active street front.
- d) To provide an appropriate interface along Knutsford Street.
- e) To provide opportunities for the creation of employment within the area so as to reduce the demand for travel and enhance the level of self-sufficiency.

7.3.2 LAND USE

Land Use permissibility shall be consistent with the objectives for the Precinct and generally in accordance with the Mixed Use and Residential Zones, and Table 2 – Zoning table of the Scheme.

7.3.3 DEVELOPMENT CONTROLS

As per Table 1 Figures 1 and 2.

7.4 DEVELOPMENT PRECINCT 3

7.4.1 OBJECTIVES

- a) To provide for a minimum of 45 dwellings within the Development Precinct. Given the strategic nature of the LSP site, target yields have been set for each precinct. A target yield of 45 dwellings has been determined as a desirable development outcome for Development Precinct 3.
- b) To provide for residential development at a density range of R60 to R100 with a variety of housing type and size, to meet the current and future needs of the community.
- c) To provide an appropriate interface along Amherst Street.

Statutory Section

1.

- d) To provide a density mix and built form character appropriate to the sites location in close proximity to the Fremantle City Centre, whilst allowing a built form response to the development precinct's environmental and topographical features.

7.4.2 LAND USE

Land Use permissibility shall be consistent with the objectives for the Precinct and generally in accordance with the Residential Zone, and Table 2 – Zoning table of the Scheme.

7.4.3 DEVELOPMENT CONTROLS

As per Table 2 and 3, and Figures 1 and 2.

7.5 DEVELOPMENT PRECINCT 4

7.5.1 OBJECTIVES

- a) To provide for a minimum of 123 dwellings within the Development Precinct. Given the strategic nature of the LSP site, target yields have been set for each precinct. An aspirational target yield of 231 dwellings has been determined as a desirable development outcome for Development Precinct 4.
- b) To provide for residential development at a density range of R80 to R160 with a variety of housing type and size, to meet the current and future needs of the community.
- c) To provide an appropriate interface along Stevens Reserve, existing residential development along Swanbourne Street and proposed residential development within the LSP area.
- d) To provide a density mix and built form character appropriate to the sites location in close proximity to the Fremantle City Centre, whilst allowing a built form response to the development precinct's environmental and topographical features.

7.5.2 LAND USE

Land Use permissibility shall be consistent with the objectives for the Precinct and generally in accordance with the Residential Zone, and Table 2 – Zoning table of the Scheme.

7.5.3 DEVELOPMENT CONTROLS

As per Table 2 and 3, and Figures 1 and 2.

7.6 DEVELOPMENT PRECINCT 5

7.6.1 OBJECTIVES

- a) To provide for a minimum of 33 dwellings within the Development Precinct. Given the strategic nature of the LSP site, target yields have been set for each precinct. An aspirational target yield of 79 dwellings has been determined as a desirable development outcome for Development Precinct 5.
- b) To provide for residential development at a density range of R80 to R160 with a variety of housing type and size, to meet the current and future needs of the community.
- c) To provide an appropriate interface with existing residential development along Swanbourne Street and proposed residential development within the LSP area.
- d) To provide a density mix and built form character appropriate to the sites location in close proximity to the Fremantle City Centre, whilst allowing a built form response to the development precinct's environmental and topographical features.

7.6.2 LANDUSE

Land Use permissibility shall be consistent with the objectives for the Precinct and generally in accordance with the Residential Zone, and Table 2 – Zoning table of the Scheme.

7.7 DEVELOPMENT CONTROLS

As per Table 2 and 3, and Figures 1 and 2.

1.

Statutory Section

7.8 LOCAL DEVELOPMENT PLAN

- a) Residential development within the LSP area shall be assessed, implemented and enforced in accordance with the standards and requirements of the City of Fremantle's Scheme and Residential Design Codes, except for those areas affected by a Local Development Plan (LDP).
- b) An LDP shall be prepared, advertised and approved in accordance with Clause 3.2.1(h) of the City of Fremantle's Scheme.
- c) All dwellings shall be developed in accordance with the standards specified within Tables 2 and 3, which constitute variations to the 'Deemed to Comply' criteria of the Residential Design Codes.
- d) Notwithstanding Clause 7.8 (c), the standards specified in Tables 2 and 3 and the Residential Design Codes may be amended with the preparation and approval of a LDP, to the

satisfaction of the City of Fremantle, in accordance with Clause 3.2.1(h) of the Scheme.

- e) LDPs are to be in keeping with the precinct planning provisions outlined in Part 1 of the LSP and specifically incorporate the following information and design elements:
 - i) Variations to the Residential Design Codes necessary to provide for the variety of housing types envisaged;
 - ii) Lots with dual frontage (including laneway lots);
 - iii) Lots adjacent to public open space;
 - iv) Narrow front loaded lots that require special considerations; and
 - v) Grouped housing and multiple dwelling sites.
- vi) This site may be affected by the telecommunications tower located at Lot 1747 Swanbourne Street. Consultation should occur with the relevant agency to

ensure development accommodates the requirements of the tower.

- vii) Performance criteria that must be satisfied in order for the responsible authority to grant approval for the landmark tower building development of up to 47 metres in building height (13 storey) in Development Precinct 4. The performance criteria are to include:
 - 1. design quality and sustainability criteria relating to the landmark tower; and
 - 2. a requirement to provide an affordable housing component of at least 15% of the total dwelling yield in the development precinct containing the landmark building.

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TABLE 1: REQUIREMENTS FOR SUBDIVISION

Documentation	Submission Stage	Approving Authority
Flora and Vegetation Management Plan	Condition of Subdivision	CoF
Local Water Management Strategy	Not required	n/a
Urban Water Management Plan	Condition of Subdivision	WAPC, CoF, DoWER
Landscape Management Plan	Condition of Subdivision	WAPC, CoF
Public Open Space Schedule in Accordance with Liveable Neighbourhoods	Subdivision Application	WAPC, CoF
Heritage Assessment	Documented in LSP	WAPC, CoF, Dept. Heritage
Local Road Network Plan	Documented in LSP, to be further refined in conjunction with subdivision	WAPC, CoF
Local Development Plan	Applicable areas discussed in LSP, LDP's to be prepared in conjunction with or as a condition of subdivision	CoF
Servicing Plan	Discussed in LSP, condition of subdivision	WAPC, CoF
Residential Design Code Plan	In conjunction with subdivision	WAPC, CoF
POS Management Plan	Condition of subdivision	CoF

- City of Fremantle (CoF)
- Department of Water and Environmental Regulation (DoWER)
- Western Australian Planning Commission (WAPC)
- Department of Planning, Lands and Heritage (DPLH)

TABLE 2: SWANBOURNE STREET LSP YIELD

Development Precinct (DP)	Approximate DP Area (ha)	Minimum Dwelling Yield	Target Dwelling Yield
PRECINCT A – MIXED USE			
DP2 – Mixed Use R40-R80	0.4087	18 dwellings ¹	18 dwellings ¹
PRECINCT B – RESIDENTIAL			
DP1 – Residential R40-R80	1.2376*	40 dwellings ²	50 dwellings ¹
DP2 – Residential R40-R80	1.0350*	47 dwellings ¹	47 dwellings ¹
DP3 – Residential R60-R100	0.8029	45 dwellings ³	45 dwellings ³
DP4 – Residential R80-R160	1.7354	123 dwellings ⁴	231 dwellings ⁵
DP5 – Residential R80-R160	0.4725	33 dwellings ⁴	79 dwellings ⁶
TOTAL	5.6921	306	470

Assumptions:

- * Excludes indicative area for new road reserve
- 1. Assumes R40 single residential laneway lots with average lot size of 220m²
- 2. Assumes R40 single residential front loaded lots with 10m minimum frontage
- 3. Assumes R60 grouped dwelling lots with average lot size of 150m² and 15% of total site area deducted for common property
- 4. Assumes R80 grouped dwelling lots with average lot size of 120m² and 15% of total site area deducted for common property
- 5. Assumes R80 multiple dwellings with plot ratio of 1.0 and an average dwelling size of 75m²
- 6. Assumes R100 multiple dwellings with plot ratio of 1.25 and an average dwelling size of 75m²

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TABLE 3: SWANBOURNE STREET LSP BUILDING HEIGHTS DEVELOPMENT PRECINCT (DP)

	Maximum Building Height (m) ¹	Maximum Number of Storeys ²
PRECINCT A – MIXED USE		
DP2 – Mixed Use R40-R80	17	4
PRECINCT B – RESIDENTIAL		
DP1 – Residential R40-R80	17	4
DP2 – Residential R40-R80	17	4
DP3 – Residential R60-R100	20	5
DP4 – Residential R80-R160	20 47 (height bonus) ³	5 13 (height bonus) ³
DP5 – Residential R80-R160	20	5

Notes:

1. Maximum building height measured as height above the post subdivision ground level, taken at street/POS lot boundary. Building height measured to the highest point of a wall or roof of a building, excluding minor projections. Services such as lift overruns and balustrades, non habitable architectural elements and telecommunications equipment, are excluded from the maximum building height calculation.
2. The definition of storey means that portion of a building which is situated between the top of any floor and the top of the floor next above it and if there is no floor above it, that portion between the top of the floor and the ceiling above it but does not include any portion of a building use solely for car parking and having 50% or more of its volume below ground level (City of Fremantle Local Planning Scheme No. 4). Storeys located wholly below post subdivision ground level (as measured from nearest street/POS lot boundary) shall be excluded from the maximum building storeys calculation.
3. Increased building and storey height limited to key development site only, as indicated in Figure 2. Additional building height up to 47m/13 storeys is subject to performance criteria, to be defined in Local Development Plan. Maximum building height and maximum storeys taken from existing tank base (36.5 AHD).
4. Development fronting any new public road (excluding laneways) or POS reserve created within DP1 or DP2 shall comply with the building height controls above.
5. All other development requirements in accordance with the Residential Design Codes.

Statutory Section

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Figure 1 – Swanbourne Street Local Structure Plan

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Statutory Section

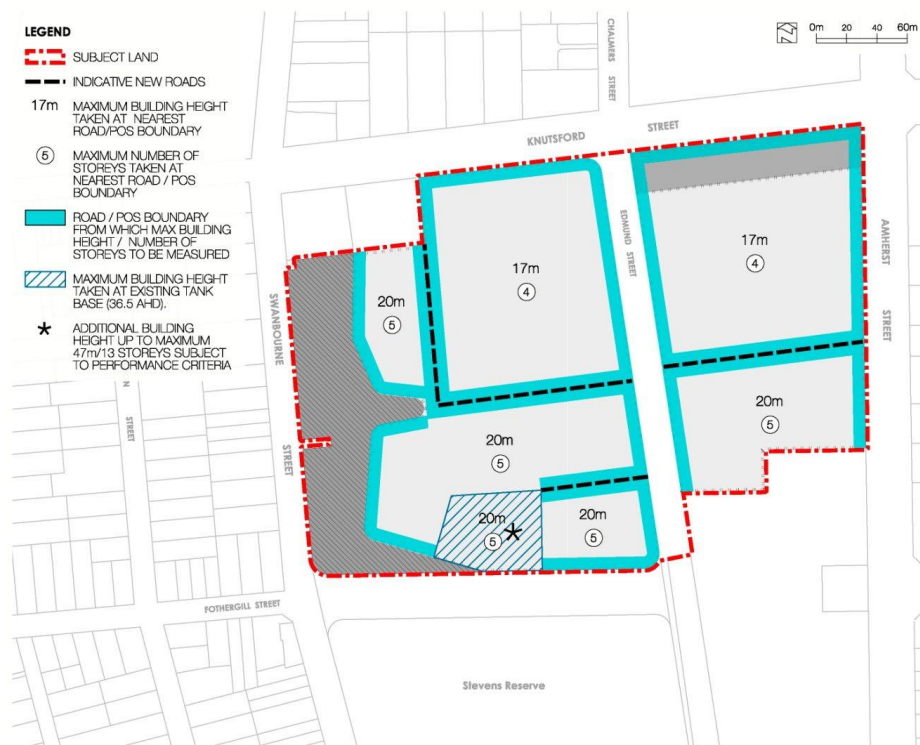


Figure 2 – Swanbourne Street Development Control Plan

PART TWO EXPLANATORY INFORMATION

Local Structure Plan

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1. Planning Background

1 PLANNING BACKGROUND

1.1 INTRODUCTION AND PURPOSE

The purpose of this LSP is to guide and facilitate the future subdivision and development of the land identified in the City of Fremantle's 'Development Area 4' (DA4). This LSP has been prepared in accordance with:

- Schedule 6 of the City of Fremantle's Local Planning Scheme No. 4; and
- The Western Australian Planning Commission's (WAPC) WA Planning Manual – Guidance for Structure Plans (August 2023).

This LSP replaces an existing adopted structure plan prepared for the same landholding.

This LSP proposes the development of the land for predominantly residential purposes, with a mix of density ranges including R40 to R80, R60 to R100, and R80 to R160. The various density ranges shall be applied in accordance with the Locational Criteria outlined in Part 1 and **Figure 1** – Structure Plan map. The LSP accommodates mixed use development in specific locations as appropriate.

1.2 LAND DESCRIPTION

1.2.1 LOCATION

The Swanbourne Street LSP relates to an area of approximately 8.9 ha located in the suburb of Fremantle, approximately 15 kilometres south-west of the Perth Central Business District and 1 kilometre from the Fremantle city centre.

The subject land is bounded by Swanbourne Street to the west, Knutsford Street to the north, Amherst Street to the east and Stevens Reserve and a Western Power switch station to the south (refer **Figure 3** – Site Plan).

1.2.2 LEGAL DESCRIPTION AND OWNERSHIP

The legal description of the lots covered by the Structure Plan is outlined in **Table 4**. Certificates of Title are attached as **Appendix A**.



Figure 3 – Site Plan

LEGEND
--- SUBJECT LAND

Planning Background

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TABLE 4: LANDOWNERSHIP DETAILS

Lot Address	Land Owner	Volume	Folio	Diagram/ Plan	Area (ha)
Lot 1356 Swanbourne Street	Western Australian Land Authority	1246	405	DP160785	1.9273
Lot 1737 Knutsford Street	Western Australian Land Authority	1926	566	DP160585	3.4348
Lot 1186 Knutsford Street	Public Education Endowment Trust (PEET)	2183	606	DP40767	0.1533
Lot 1187 Knutsford Street	PEET	2183	607	DP40767	0.1439
Lot 1188 Knutsford Street	PEET	2183	608	DP40767	0.1348
Lot 1189 Knutsford Street	PEET	2183	609	DP40767	0.1255
Lot 1190 Knutsford Street	PEET	2183	610	DP40767	0.1123
Lot 1191 Amherst Street	PEET	2183	611	DP40767	0.2087
Lot 1192 Amherst Street	PEET	2183	612	DP40767	0.1783
Lot 1197 Amherst Street	PEET	2183	613	DP40767	0.1798
Lot 1198 Amherst Street	PEET	2183	614	DP40767	0.2006
Lot 1199 Amherst Street	PEET	2183	615	DP40767	0.1910
Lot 1200 Amherst Street	PEET	2183	616	DP40767	0.1798
Lot 1207 Amherst Street	PEET	2183	617	DP40767	0.2155
Lot 1208 Amherst Street	PEET	2183	618	DP40767	0.2243
Lot 1213 Amherst Street	PEET	2183	619	DP40767	0.1798
Lot 1214 Amherst Street	PEET	2183	620	DP40767	0.1619
Lot 1215 Amherst Street	PEET	1686	343	DP40767	0.1523
Lot 1725 Amherst Street	PEET	1044	112	DP40767	0.2723
Closed Road (Edmund Street Road Reserve)					0.5415
TOTAL					8.9177 ha

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Planning Background

1.3 PLANNING FRAMEWORK

1.3.1 ZONING AND RESERVATIONS

METROPOLITAN REGION SCHEME

The subject land is zoned 'Urban' under the Metropolitan Region Scheme (MRS). The land surrounding the site is also zoned 'Urban'.

CITY OF FREMANTLE LOCAL PLANNING SCHEME NO 4

The land is zoned 'Development' under the City of Fremantle's Local Planning Scheme No 4 (the Scheme); refer **Figure 4** – City of Fremantle Local Planning Scheme No. 4 Zoning. It is located within 'Development Area 4 (DA4) – Knutsford Street Industrial Area (West of Amherst Street, inc. Navy site)'. Development within this area must adhere to the DA4 Provisions within the Scheme Text. As stated in the Scheme, the purpose of the Development Zone is:

"to provide for future residential, industrial, commercial or other uses in accordance with a comprehensive structure plan or detailed area plan prepared in accordance with the provisions of the Scheme."

The proposed LSP is consistent with the above objectives and allocates land uses appropriately in response to site conditions. The structure planning process provides a flexible mechanism of planning, and identifies the provision of service infrastructure within the subject site. These matters are dealt with in detail throughout this report.

While this LSP proposes to implement particular land use designations (namely 'Public Open Space', 'Residential', and 'Mixed Use') the underlying 'Development' zone remains unchanged, thereby ensuring ongoing consistency with the 'Urban' zoning of the MRS.

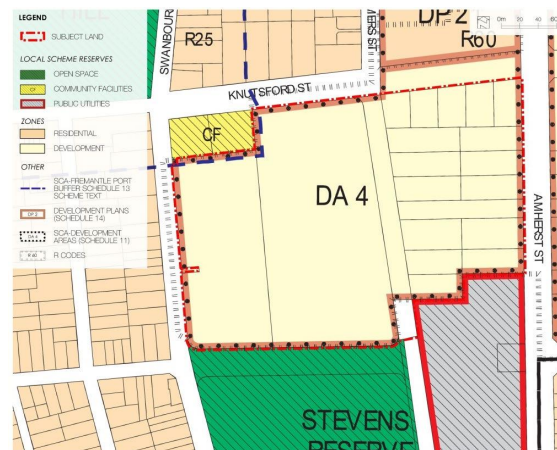


Figure 4 – City of Fremantle Local Planning Scheme No. 4 Zoning

1.3.2 REGIONAL AND SUB-REGIONAL STRUCTURE PLANS

APPROVED SWANBOURNE STREET LOCAL STRUCTURE PLAN

On 15 December 2003 the City of Fremantle Council approved the Swanbourne Street Structure Plan for the area bounded by Stevens, Amherst, Blinco and Swanbourne Streets under TPS No. 3 (refer **Figure 5** – Approved Swanbourne Street Structure Plan). The approved LSP divided the land into four precincts, accommodating a range of residential types and sizes, home business, mixed use and public open space land uses.

The intent of this document was to provide an alternate residential based structure plan within the subject area to guide its future redevelopment for non-industrial uses. The Structure Plan area formerly included Lot 1354 located north of Knutsford Street. Since

adoption of the original Structure Plan the development process has proceeded and subdivision approval has been granted for this portion of the original Structure Plan area.

On 31 October 2008, DevelopmentWA (formerly Land Corp) lodged a revised structure plan for the subject land. The revised LSP altered the layout of the approved LSP and divided the land into seven precincts, proposing a range of high residential densities for the site. Council resolved to advertise the revised structure plan to the public in January 2009, and the plan was advertised from 7 February to 31 March 2009. During this public advertising period, a number of submissions were received from the public which identified a number of key issues, notably in relation to density and height, public open space and traffic concerns.

The subject structure plan proposes the development of much higher densities than those proposed in the previously approved LSP, responding to a change in market demand and reflecting updated State and local policies and strategies aiming to provide a broader range of medium and higher density residential development for an increasing population. The updated design and layout of the LSP, where possible, attempts to address a number of the issues raised through the public advertising period undergone by the previous proposed revised LSP, such as: setting back development from Swanbourne Street and the utilisation of the Bushland Regeneration Area as a development buffer, creating an improved development interface with surrounding development; as well as increased density in keeping with the strategic nature of the site.

SURROUNDING LOCAL STRUCTURE PLANNING

KNUTSFORD STREET EAST STRUCTURE PLAN

The Knutsford Street East Structure Plan was adopted by the City of Fremantle in April 2006 (refer **Figure 6** – Knutsford Street East Structure Plan). It sets out key structure planning principles for the industrial land east of Amherst Street (immediately east of the subject site) and promotes the redevelopment of this area not only

Planning Background

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for residential purposes but also to facilitate mixed use where appropriate and the implementation of adaptable building approaches.

The proposed land uses and built form of the subject LSP will integrate with the development proposed in the Knutsford Street East structure plan, with similar densities proposed along the interface of the two sites.



Figure 5 – Approved Swanbourne Street Structure Plan

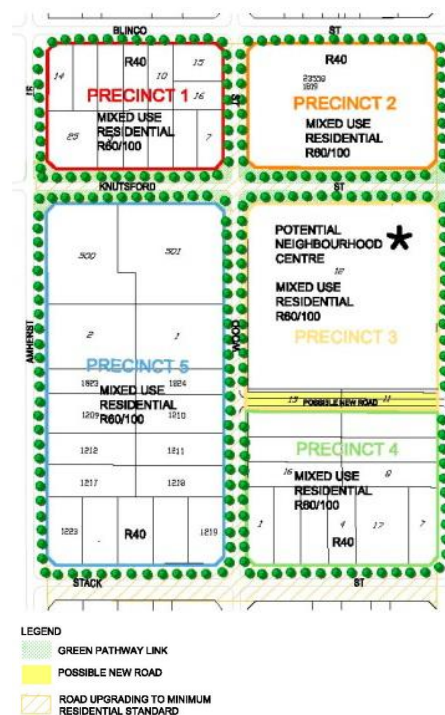


Figure 6 – Knutsford Street East Structure Plan

1.3.3 PLANNING STRATEGIES

PERTH AND PEEL @ 3.5 MILLION

Perth and Peel @ 3.5 Million is the State's high level spatial framework and strategic plan. The document guides the future growth of the metropolitan Perth and Peel regions as a compact, consolidated and connected City that can accommodate a population of 3.5 million people by 2050. The document sets out a target of 47 per cent of required future residential homes to come from infill development, to improve on residential infill development trends. Infill and consolidation are promoted, and high-density residential development is encouraged closer to activity centres, station precincts and along high-frequency public transport routes.

The subject land is located within the Central Sub-Regional Planning Framework, which covers 19 local government areas, including the City of Fremantle. The Central Sub-Region is required to provide at least 215,000 new dwellings to cater for a population increase of at least 1.25 million people by 2031.

CENTRAL SUB-REGIONAL PLANNING FRAMEWORK

As part of the implementation of Perth and Peel @ 3.5 Million, the State government also released four region frameworks to provide appropriate strategic guidance for the varied regions.

The Central Sub-Regional Planning Framework provides strategic guidance for the 19 local government areas centrally located around Perth city. The sub-region is characterised by some of Western Australia's oldest urban settlements and has a high level of amenity due to its proximity to the river and the coast. The sub-region contains the Perth central business district, has the highest population and employment densities and is the focus of the metropolitan public transit network.

The Framework includes a long-term housing supply target for each local government. The draft housing target identified for the City of Fremantle is 7,030 additional dwellings. The Swanbourne Street DA4 growth area is listed as having a projected yield (with an 85% take-up) of 323 dwellings. The residential development proposed in this LSP makes a significant contribution to reaching the dwelling

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Planning Background

target for the City of Fremantle, with an expected minimum yield of approximately 306 dwellings, achieving a density of 54 dwellings per site hectare. It is likely that a yield higher than the minimum yield will be realised, however will be dependant on market conditions. Realising the target yield would yield an expected 470 dwellings, achieving a density of 80 dwellings per site hectare.

The Framework identifies Fremantle as an Activity Centre, an area that draws people to it for transport, economic activity and leisure. The higher densities proposed in the LSP respond to this opportunity to provide higher density living within proximity to the economic hub of Fremantle city centre.

CITY OF FREMANTLE STRATEGIC COMMUNITY PLAN

In 2024 the City of Fremantle adopted their Strategic Community Plan, with a vision for a creative and daring, inclusive and caring, thriving and resilient, and authentically different City.

In terms of planning and development, the strategic community plan acknowledges that Fremantle is growing, with both infill development in the suburbs and new residential developments in the CBD contributing to an increase in population. The Plan acknowledges the importance of ensuring growth is done in a sustainable manner, including diversity and affordability in the housing mix.

The LSP supports the Strategic Community Plan's vision for residential development, proposing sustainable and diverse housing within proximity of the city centre's amenities and key infrastructure.

GREENING FREMANTLE: STRATEGY 2020

The City's Greening Fremantle: Strategy 2020 provides a strategy for the enhancement and management of existing vegetation in parks, reserves and private land, degraded areas and road reserves, new green spaces, and linkages between green spaces. The subject site is identified for greening opportunities and forms part of the proposed green linkage throughout the City. The objectives of the Green Plan have been taken into consideration and are reflected in the LSP for the subject site.

1.3.4 POLICIES

LIVEABLE NEIGHBOURHOODS (2015)

Liveable Neighbourhoods is the WAPC's operational policy to guide the design and assessment of structure plans. The aim of Liveable Neighbourhoods is to design a robust urban environment and neighbourhood structure that can accommodate a range of uses, and which is flexible enough to change over time. Its aims also include promoting the design of walkable neighbourhoods, places that offer community and sense of place, mixed uses and active streets, accessible and sustainable parks and a variety of lot sizes and housing types. Liveable Neighbourhoods is aligned to the State Planning Strategy 2050 (WAPC, 2014), which aims to guide the sustainable development of Western Australia for the next four decades, and supports Perth and Peel@3.5million (WAPC, 2015).

Where possible, the LSP has had regard to the objectives and requirements of Liveable Neighbourhoods, whilst responding to the context of the site.

RESIDENTIAL DESIGN CODES VOLUME 1 AND 2 (2024)

In accordance with Part 1 of this LSP report, the land subject of this LSP is required to comply with the Residential Design Codes, with the exceptions of those development standards detailed in Part 1, Table 2 – Swanbourne Street LSP Development Control, which prescribes variations to the R-Codes.

CITY OF FREMANTLE D.G.F 28 SWANBOURNE STREET AND KNUTSFORD STREET LOCAL AREA

The City's Policy D.G.F 28, adopted in April 2000, relates to Lot 1356 Swanbourne Street and Lot 1737 Knutsford Street within the LSP area, requiring the adoption of a Structure Plan or Detailed Area Plan (now Local Development Plan) for the policy area prior to the consideration of any applications for planning approval. The LSP has been prepared and designed to meet the objectives and requirements outlined within Policy D.G.F 28. In particular, it addresses the sites characteristics and proposes development and landuses in accordance with community and Council objectives. It also contains guidelines for development addressing, as appropriate, density and form of development, environmental

constraints and landscape features, the telecommunications tower, cultural and Aboriginal heritage matters, environmental features, open space linkages, lot layout, road networks and traffic impact.

Site Conditions and Constraints

2.

2 SITE CONDITIONS AND CONSTRAINTS

2.1 EXISTING LAND USE

The subject land has historically been utilised for industrial purposes in association with the storage and distribution of fuel to Fremantle harbour. The PEET bunkering facility was leased to BP Australia and was in operation for approximately 60 years, and BP Australia has since undertaken remediation works. The ex-Commonwealth land contains former bunkering facilities which have not been in use for over a decade, and the tanks were demolished in 2008 with subsequent further remediation undertaken.

The site is surrounded by long-established residential and industrial development. The surrounding area is characterised by older style residential housing, industrial development and areas of public open space. The southern boundary of the site adjoins Stevens Reserve, a significant active recreation reserve which is attractive in presentation. The visually obtrusive Western Power switch station also abuts the subject land to the south. The western and northern boundaries front residential development of various styles, densities and quality. The area to the east contains a range of older industrial facilities generally in poor to fair condition. This area will ultimately be subject to regeneration under the Knutsford Street East Local Structure Plan.

In general, the surrounding area is characterised by residential housing, industrial development and areas of public open space. The subject land, by virtue of its proximity to the city centre, is accessible to the full range of services and amenities available in and around the Fremantle city centre, including shopping, commercial, community, medical, entertainment and recreation activities.

A number of open space areas are located in the general vicinity, including as noted, Stevens Reserve to the south, a small play park/reserve and Memorial Reserve to the north-west and to a lesser extent the Fremantle Public Golf Course and Booyeembara Park to the east of the Knutsford East Structure Plan area.

There are a range of educational facilities serving the area, including White Gum Valley Primary School on Montreal Street to the south-east, East Fremantle Primary School on Forrest Street to the north-west and John Curtin Senior High School on East Street, also to the north-west.

The portion of Edmund Street within the LSP boundary is currently unconstructed. South of Stevens Street, to the south of the LSP area, Edmund Street becomes a constructed road with houses fronting it.



2.

Site Conditions and Constraints

2.2 BIODIVERSITY AND NATURAL AREA ASSETS

2.2.1 FLORA AND VEGETATION

A field survey was undertaken for the vegetated western portion of the subject site on 3 May 2002 as part of the preparation of the 2003 Structure Plan. The purpose of the survey was to assess the condition of areas of remnant vegetation and to briefly describe the flora and vegetation present. Historic aerial photography shows that the majority of the structure plan area has previously been cleared of vegetation. The vegetation that exists is mainly regrowth *Acacia* overstorey over a range of weed species.

The two main vegetation 'types' can be described as:

- Tall shrubland of *Acacia* Cyclops and *Agonis flexuosa* over *Templetonia retusa* over a herb layer of assorted weed species; and
- Tall open shrub of *Acacia* Cyclops, *Dryandra sessilis* and *Agonis flexuosa* over *Leucopogon parviflorus* and *Melaleuca huegelii*, open shrubland over *Templetonia retusa* and assorted weed species.

There are some small areas on site that still retain a few understorey species such as herbs and shrubs but no area could be described as a complete vegetation community. The majority of the vegetation is limited to the western portion of the site, and will be retained where possible within public open space.

The total number of native species recorded was exceeded by the total number of weed species recorded, which attests to the degraded condition of the site.

The vegetation is classified in *Bush Forever* (WAPC and DEP, 2000) as 'Other Native Vegetation' and is not regarded as regionally significant. It has therefore not been included as a Bush Forever site.

While the site has been identified within the City of Fremantle's *Greening Fremantle: Strategy 2020* as part of a local green corridor, there is very little native vegetation within the site. The vegetation survey verified that there are no species of Declared Rare or Priority Flora within the vegetated western portion of the subject site.

2.2.2 ENVIRONMENTAL QUALITY

There is little to no remnant vegetation as most of it has been cleared and the surface of the site sealed in the past. The regrowth vegetation holds little conservation value. As a result of the extensive clearing that has occurred over the site, the highly degraded vegetation presents little opportunity for native fauna habitat.

The subject site is part of a groundwater recharge, however it contains no hydrological features.

The majority of the structure plan area has historically been occupied by land uses with potential to result in contamination. Any potential contamination is likely to be related to hydrocarbons, due to the storage of fuel. Site investigations and remediation must be completed and endorsed by the Department for Environment and Conservation prior to the land being deemed suitable for future development.

The western portion of the former Fuel Depot Site is in a rundown and dilapidated state which redevelopment in accordance with the LSP will address.

2.3 LANDFORM AND SOILS

2.3.1 LANDFORM AND TOPOGRAPHY

The subject area is part of the inter-dune swale of a prominent dune system situated within the Quindalup Coastal Dunes geomorphic unit. The land is quite steep, particularly on the western portion, rising off Swanbourne Street to a ridge at around RL50m AHD and falling in a south eastern direction to a low point at the intersection of Stack Street and Amherst Street at RL17.00m AHD. The western portion of the site between the ridge and Edmund Street falls from RL50m AHD to around RL27m AHD (approximately 23m) and the remainder of the site between Edmund and Amherst Streets falls around 3m to RL24m AHD in the centre, although noting that Amherst falls around 9.0m from north to south along the eastern boundary of the site.

The historic installation of two fuel storage tanks on the south western portion of the subject site has involved the shearing away of limestone to create two curved seven metre high walls.

2.3.2 LANDSCAPE VALUES

The western portion of the site marks a high point in Fremantle, providing views of the ocean, Fremantle city centre, and even the Perth City skyline. The opportunity to retain the natural limestone features on the western portion of the site, where practicable, due to their local landscape and heritage significance will be incorporated as part of the LSP process.

The gently sloping eastern portion of the site exhibits limited views of the neighbouring areas including the Western Power switch station. While extensive civil engineering works will be required prior to development in response to the terrain, the LSP seeks to reflect existing topography and landform where possible.

Site Conditions and Constraints

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2.3.3 SOILS AND GEOMORPHOLOGY

Based on the *Environmental Geology Series – Fremantle Part Sheets 2033 I and 2033 IV* (Geological Survey of Australia, 1986) the subsurface lithologies in the area are of the Cottesloe soil association (part of the Spearwood dune system) which consist of limestone dominated profiles with pale yellowish brown, fine to coarse-grained sands overlying limestone. Surface limestone outcrops are visible on the western portions of the site, while the ridge of the dune, sub-surface profiles are likely to be comprised almost entirely of Tamala limestone.

The rocky material will need to be processed and placed in deeper fill to ensure that suitable building platforms can be constructed.

2.4 GROUNDWATER AND SURFACE WATER

The water table is well below the surface levels with the highest AAMGL being some 0.7-1.0m AHD as outlined in the 1997 Groundwater Atlas, which is renowned as being the highest recorded groundwater levels. Considering that ground surface levels vary between 48m and 20m AHD, the maximum groundwater table is expected to be between 47m and 16m below the surface. The greater depths occur in the western portion of the site which is situated towards the western dunal ridge, whereas the lesser depths occur in the eastern portion of the site which is not as elevated

Due to the sites proximity to the ocean and Swan River, it is expected that groundwater beneath the site flows generally in a north westerly direction towards the ocean. This appears to be consistent with regional groundwater contours and groundwater gradient as shown in the *Perth Groundwater Atlas* (WRC, 1997).

The soil profiles overlying groundwater within the site are expected to be very permeable, as they comprise largely coarse grained siliceous sands overlying limestone, or entirely Tamala limestone (Geological Survey of Australia, 1986). The site is situated within a groundwater recharge zone.

2.5 BUSHFIRE HAZARD

The existing bushland along the western portion of the LSP area is considered a source of fire threat. Fire risks have been considered for the adjoining development sites, and mitigation methods are detailed further in Section 4.2.8 of this report.

2.6 HERITAGE

A search of the Department of Indigenous Affairs Aboriginal sites database revealed that no portion of the site was registered on the 'interim' or 'permanent' register. Sites that are registered on the interim or permanent register are protected by the *Aboriginal Heritage Act 1972* (the Act), and any damage or alteration to such sites would be in breach of Section 17 of the Act.

The site, however, was registered on the 'stored data' register, but this listing does not constitute the need to lodge a Notice under Section 18 pursuant to the Act prior to development.

3.

Structure Plan Design

3 STRUCTURE PLAN DESIGN

The design vision of the Swanbourne Street Structure Plan is to create a new and inspiring residential community that embraces natural landmarks, respects its urban context and uses site-specific creativity to accentuate the sites natural landform and topography.

The design seeks to encourage a relaxed, healthy and social lifestyle, while complementing a new and emerging demographic through the provision of diverse housing product.

The Structure Plan embraces the following principles:

- Provide for a variety of residential densities, enabling the construction of a diverse range of housing types to accommodate different housing demands.
- Provide site responsive design that optimises climate and landform sensitive outcomes.
- Optimise the aesthetic appearance of the lots directly fronting the high-amenity public open space.
- Integrate the surrounding existing landform and natural environment into the development area with linear open space and green spine connection.
- Provide a legible movement network that enhances accessibility and way-finding.
- Provide an attractive, safe and convenient pedestrian and cyclist connections and informal active recreation spaces throughout.
- Ensure a sensitive transition and integration between the surrounding existing development and new development.
- Provide a mixed use interface to portion of Knutsford Street.



Figure 1 – Swanbourne Street Local Structure Plan

Land Use and Subdivision Requirements

4.

4 LAND USE

4.1 LAND USE OVERVIEW

The predominant land use identified for the LSP area is residential (refer to **Figure 8** – Master Plan). The Master Plan has been prepared to provide an illustration of the development intent. This graphical representation is indicative only; however it gives an indication of how the public space may be developed and the relationship of the public/private interface between the public spaces and new residential areas.

It is intended that the site will accommodate a variety of residential housing types. The LSP will also facilitate the potential for non-residential uses such as home based business, offices and retail along the eastern portion of Knutsford Street.

Lots situated in high amenity areas such as adjacent to POS and taking advantage of natural viewpoints are identified as being suitable for high density residential development and have been provided accordingly. Precise lot yields can only be accurately determined as detailed design progresses. The Master Plan (**Figure 8**) and predicted dwelling yield do illustrate however, how the proposal will provide for a diversity of housing types, adding to housing choice in the locality, as further detailed in Section 4.3 of this report.

A significant portion of POS is provided along the western boundary of the site along Swanbourne Street. This location provides for a green link from Monument Hill in the north through to Stevens Reserve to the south of the site. POS provision within the site is further explained in Section 4.2 of this report.



Figure 8 – Swanbourne Street Master Plan

4. Land Use and Subdivision Requirements

4.2 OPEN SPACE

4.2.1 LANDSCAPE PHILOSOPHY

The landscape approach for LSP is derived from a sensitive response to the topography, geology and flora of the sites local context, as well as a strong understanding of the social and cultural patterns of the greater area.

Designed as an integrated part of Fremantle's green network, the landscape reinforces the City's unique identity and sense of place through the careful selection of plants, choice of materials and design of spaces and linkages (refer **Figure 9** – Landscape Master Plan).

The Landscape Network consists of 3 key areas:

- Bushland and Reservoir
- Green Spine
- Stevens Reserve Link

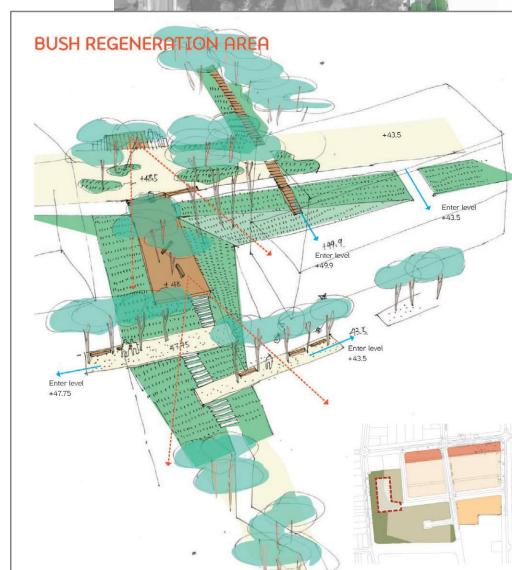
Further detailed information regarding the landscape philosophy and specific design elements is included within **Appendix B** – Landscape Concept.



Figure 9 – Landscape Master Plan

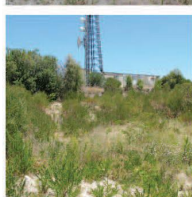
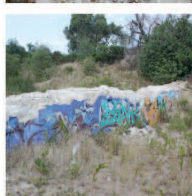
4.

The existing bushland along the western boundary of the site is to be retained where possible. Paths and access point will be created through the bushland to connect the development with the surrounding residential area and reserves. The bush will be protected and rehabilitated using local native species.



4. Land Use and Subdivision Requirements

4.2.3 SUNKEN GARDEN



The design of the Sunken Garden sensitively acknowledges the remnant reservoir to create a focal point. The reservoir is divided into two gardens, separated by a wall. The key attributes of the space are:

Tuart Garden

Young Tuart species are allowed to continue to naturally recolonise the northern area of the square.

- Minimal intervention
- Remove weeds
- Potential raised walkway through the space
- Ephemeral garden

"The Wall"

The remnant section of wall of the old reservoir is celebrated as the feature element and physical threshold that separates the two gardens. The wall will remain untouched and allowed to stand as a historical reminder of the sites past use.

- Interactive element (walk on wall)
- Retain graffiti

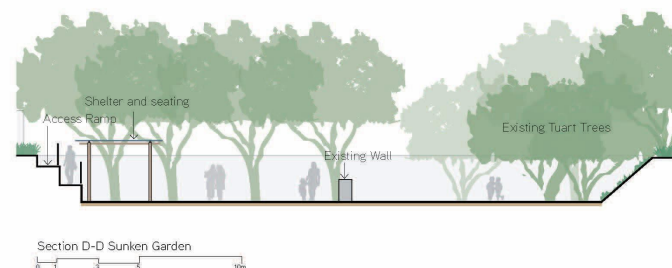
The Reservoir Garden

The Reservoir Garden will create a formalised garden space that reinterprets the original use of the site, forming a contemplative place for people to gather.

- Vertical elements in place of original columns
- Pavilion shelter (located to the South to screen from police tower)
- Walls/ramps to define the original extent of the water reservoir walls and provide access to Swanbourne Street and existing local community
- Formalised treatment



1. Reservoir Garden
2. Tuart Garden
3. Existing Tuarts (young) – recolonising the area
4. Original reservoir wall
5. Proposed footpath (Swanbourne Street)
6. Location of original columns for Reservoir structure
7. Proposed pavilion
8. Walking trail (compacted limestone)
9. Arrival deck and steps down into gardens
10. Proposed walls and ramp access (rammed earth and limestone gabion walls)
11. Raised walkways through Tuart grove
12. Grid of shade trees



Land Use and Subdivision Requirements

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4.2.4 GREEN SPINE

A green spine links the bushland regeneration area to the eastern part of Amherst Street. The Green Link has a widened verge with a 25m road reserve. Its treatment contributes to the sociability and character of the proposed development. The layers of the Green Spine are:

- Function – Opportunity for resting, gathering and meeting.
- Landscape Character – Response to the local character.
- Landscape Structure – Integration of street levels and creation of spaces.



Figure 12. Green Spine illustrative plan

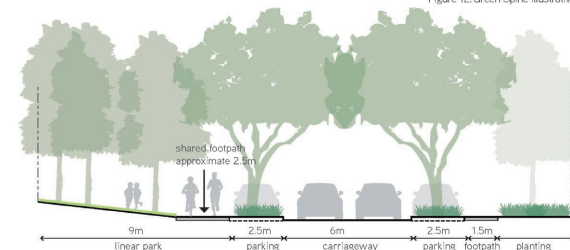


Figure 13. Green Spine illustrative plan

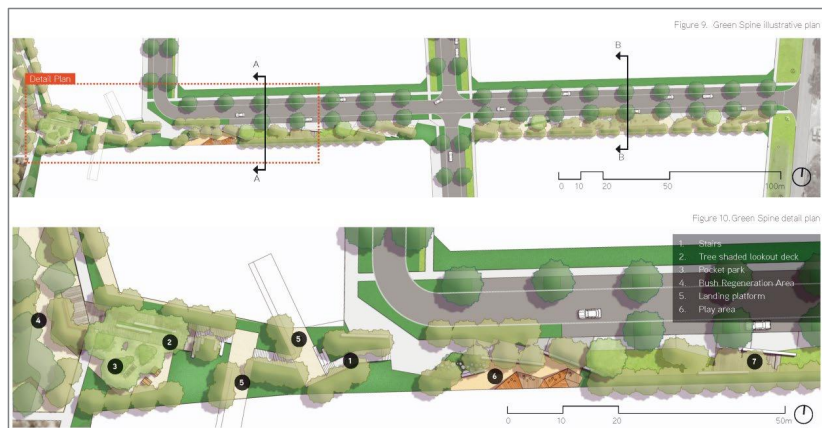
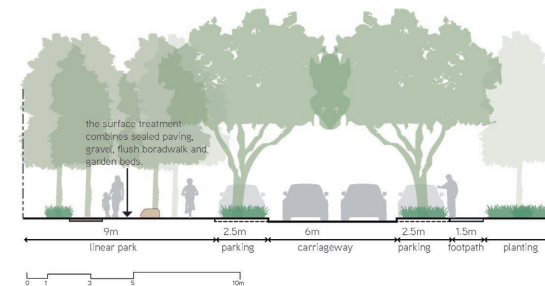


Figure 10. Green Spine detail plan

4. Land Use and Subdivision Requirements

4.2.5 STEVENS RESERVE INTERFACE

A small pocket park in the south of the LSP area facilitates direct access between the proposed development and active playing fields of Stevens Reserve.

The interface between the proposed development and Stevens Reserve will encompass the following design considerations:

- Development boundary wall – 50% transparency, low wall and slatted fence
- 2m wide footpath with handrail
- Limestone embankment
- Retain existing vegetation



Land Use and Subdivision Requirements

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4.2.6 SWANBOURNE STREET INTERFACE

Where there is an interface between proposed development and bushland or parkland, developments will:

- Have direct access into the POS
- Clearly distinguish between private and public land
- Retain the natural levels of the POS through the provision of retaining walls
- Be sensitive to the character of the bushland
- Overlook the parkland to provide good passive surveillance
- Not be permitted to have solid 1800mm fencing on the boundary



Figure 14: Section C-C

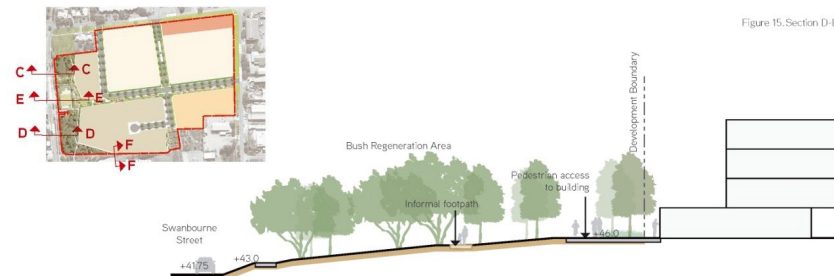


Figure 15: Section D-D



1. Lot boundary
2. Remnant vegetation
3. Reservoir Garden walls
4. Pavilion and Deck
5. Verge Footpath
6. Swanbourne Street



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4.2.7 POS PROVISION

In July 2012 subdivision approval was granted for Lot 1354 Knutsford Street, being the land owned by DevelopmentWA immediately north of the LSP area (and included as part of the adopted LSP). The subdivision approval required that the subdividers provide a cash-in-lieu contribution to the City of Fremantle for the required 10 per cent POS contribution. The City and the subdividers have agreed that the POS contribution required as part of the subdivision approval for Lot 1354 may be accommodated within the LSP area (thus negating the requirement for a cash-in-lieu contribution) if the proposed LSP is approved by

the WAPC and adopted by the City under the Scheme within 10 years of the agreed Deed.

The LSP proposes a total area of approximately 1.0416 ha of POS within two areas (refer **Figure 10** – Public Open Space Plan and **Table 5** – Public open Space Schedule). The total percentage of POS provided, including the required 10 per cent contribution for Lot 1354, equates to 10.3.

Liveable Neighbourhoods requires that the 10 per cent POS contribution must comprise a minimum of 8 per cent for active and passive recreational purposes where the remaining 2 per cent comprises restricted use public open space uses (drainage lands,

natural and cultural features etc). It is proposed that drainage be accommodated in below ground storage basins within the road reserve, thus 100 per cent of the POS contribution is unrestricted.



Figure 10 – Public Open Space Plan

Land Use and Subdivision Requirements

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TABLE 5: PUBLIC OPEN SPACE SCHEDULE

PUBLIC OPEN SPACE SCHEDULE SWANBOURNE STREET LOCAL STRUCTURE PLAN		
Gross Site Area		8.9177
Deductions		
Edmund Street Road Reserve	0.4174	
Total Deductions	0.4174	
Gross Subdivisible Area		8.5003
Required Public Open Space (10%)		0.8500
PUBLIC OPEN SPACE PROVISION		
Unrestricted Public Open Space		
POS1	1.0159	
POS 2	0.0331	
Total Unrestricted Public Open Space		1.049
Less 10% requirement for Lot 1354		0.1647
Total Credited Public Open Space		0.8843
Percentage of Public Open Space Provided (Unrestricted and Restricted POS Contribution)		10.4%

4. Land Use and Subdivision Requirements

4.2.8 BUSHFIRE MANAGEMENT

As outlined in Section 2.5, the existing vegetation along the western portion of the LSP area is considered to be a source of bushfire threat.

A summary of key strategies to mitigate the potential bushfire hazard include:

- Provision of a footpath and non-planted or irrigated strip within the POS adjoining the development site.
- Eradication of weeds.
- Removal of dead/ dying trees and dead branches.
- Removal of dense understory vegetation.
- Development of an appropriate maintenance regime for the City and Developers.

4.2.9 TREE RETENTION

Tree retention is a priority within the bushland retention area. Trees will be adequately protected during development works and pruned and maintained correctly.

4.3 RESIDENTIAL

The LSP will provide approximately 5.6 ha of residential land with opportunities for a range of dwelling density and typologies, including apartments, grouped housing and single houses. The variety of housing typologies will cater for a diverse range of households, and the design of the LSP allows the flexibility for developers to respond to changes in demand and household types as the development is delivered.

The site presents a number of factors that influence the configuration and orientation of the road network and lot orientation, particularly relating to existing topography, and interface treatment to POS areas and surrounding existing and proposed residential development.

4.3.1 MIX, PRODUCT AND DESIGN

The development of the Swanbourne Street site is envisaged to provide a wide variety of dwelling types, which will consequently contribute to the diversity of the housing stock available in the Fremantle area. The ultimate yield and product mix will be determined by the type of development pursued by each proposed site by a particular developer and will be subject to the market conditions at the time. The ultimate lot yield and product mix will be determined during the construction and development phase.

Table 6 outlines the minimum residential development yield scenario for the site, assuming average lot sizes in accordance with the R-Codes for the minimum density coding applied to each Development Precinct.

The delivery of a variety of housing types, in accordance with the requirements of the R-Codes, will contribute to the diversity of housing available in Fremantle. This diversity of housing product provides the opportunity for members of the Fremantle 'age in place', as well as providing opportunities for new home owners to enter the housing market.

4.3.2 BUILDING HEIGHT

The maximum building heights that apply to proposed Development Precincts are outlined in *Part 1 – Structure Plan Statutory Provisions*, **Table 3** and **Figure 2**.

Maximum building heights, as outlined in Table 3 and Figure 2, are to be measured as height above the post subdivision ground level, taken at the nearest street/POS lot boundary for all lots, excluding the landmark building site in DP4 which is to be taken from the existing tank base (36.5 AHD). Building heights are to be measured to the highest point of a wall or roof of a building, excluding minor projections. Services such as lift overruns and balustrades, non habitable architectural elements and telecommunications equipment, are excluded from the maximum building height calculation.

This methodology seeks to create a positive streetscape by ensuring building heights can be effectively controlled along street

frontages whilst still accounting for the significant level changes associated with the site.

LANDMARK BUILDING SITE

As illustrated in **Figure 2**, the LSP makes provision for a potential landmark building site of up to 13 storeys within Development Precinct 4, subject to the development meeting certain performance criteria. This site provides the opportunity for residential apartment development, providing a key contributor to meeting dwelling targets for the LSP area.

These performance criteria should include design quality and sustainability criteria applicable to a 'landmark' tower building and a requirement to provide an affordable housing component of at least 15% of the total dwelling yield in the development precinct containing the landmark building. Specific criteria are to be identified and agreed at the Local Development Plan stage. Performance criteria must be satisfied in order for the responsible authority to grant approval for development of up to 47 metres in building height (13 storey) in Development Precinct 4

The landmark building is to be located on the southern boundary adjacent Stevens Reserve (on the former oil tank site) and provides a good fit for preserving the tank's original foundation cutting. This location allows for a reduced building footprint and less disruption to the topography at this critical point on the site, thus reducing civil and site works.

The inclusion of a mid-rise landmark building adds to the diversity of housing and built form types accommodated within the LSP area, whilst providing articulation and counterpoint to the overall scale and mass of the built form.

The tower is set back from Swanbourne Street, therefore mitigating its impact on the existing streetscape of Swanbourne Street. The siting of the mid-rise site to the south of the LSP area adjacent Stevens Street Reserve also ensures the building will not adversely cast shadows over new or existing residences.

The landmark building has been sited to ensure it does not impact on the existing Police antenna ray lines, whilst the tower form also

Land Use and Subdivision Requirements

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provides the opportunity to relocate telecommunication infrastructure away from the ground plane and public view by placing it on top of the building structure.

4.3.3 YIELD

The minimum and target yields for the site are outlined in Table 5. The split zoning over the site allows for increased development density where key performance criteria are met. High density residential (R80-R160) has been accommodated at key development sites on DP's three, four and five. The increased density coding has been situated to take advantage of public open space amenity and views, reduce overshadowing, take advantage of site contours and provide a positive development interface with the surrounding community.

The LSP area represents a strategic site within the City of Fremantle and has therefore been zoned to deliver an appropriate number of dwellings in line with its favourable development status.

As per Table 6, the minimum dwelling yield delivered by the site is 306 dwellings, with an aspirational development target of 470 dwellings considered desirable for the site. It is noted that under the proposed zoning and current R-Codes, the site could deliver in excess of this figure, with the maximum yield dependent on a number of factors such as dwelling size and type.

The development of the LSP area will respond to current and forecast market conditions with the ultimate dwelling yield therefore dependent on the prevailing market forced guiding development scale and individual dwelling characteristics.

TABLE 6: YIELD SUMMARY

Development Precinct (DP)	Approx. DP Area (ha)	Minimum Dwelling Yield	Target Dwelling Yield
PRECINCT A – MIXED USE			
DP2 – Mixed Use R40-R80	0.4087	18 dwellings ¹	18 dwellings ¹
PRECINCT B – RESIDENTIAL			
DP1 – Residential R40-R80	1.2376*	40 dwellings ²	50 dwellings ¹
DP2 – Residential R40-R80	1.0350*	47 dwellings ¹	47 dwellings ¹
DP3 – Residential R60-R100	0.8029	45 dwellings ³	45 dwellings ³
DP4 – Residential R80-R160	1.7354	123 dwellings ⁴	231 dwellings ⁵
DP5 – Residential R80-R160	0.4725	33 dwellings ⁴	79 dwellings ⁶
TOTAL	5.6921	306	470

Assumptions:

- * Excludes indicative area for new road reserve
- Assumes R40 single residential laneway lots with average lot size of 220m²
- Assumes R40 single residential front loaded lots with 10m minimum frontage
- Assumes R60 grouped dwelling lots with average lot size of 150m² and 15% of total site area deducted for common property
- Assumes R80 grouped dwelling lots with average lot size of 120m² and 15% of total site area deducted for common property
- Assumes R80 multiple dwellings with plot ratio of 1.0 and an average dwelling size of 75m²
- Assumes R100 multiple dwellings with plot ratio of 1.25 and an average dwelling size of 75m²

4. Land Use and Subdivision Requirements

4.4 MIXED USE

The LSP provides the opportunity for mixed-use development along the eastern portion of Knutsford Street, suitable for uses such as retail, offices, and home based business facilities on the ground floor of buildings. Ultimately, the decision to develop a retail or commercial facility within the site will be based on the financial feasibility of the proposed enterprise, and this in turn will depend on the number of residents and visitors that are located and live within the catchment of the site.

Therefore, the LSP does not mandate a minimum or maximum amount of the various types of non-residential floorspace for the site. A flexible approach is proposed, whereby non-residential activities can be established as economic conditions are favourable for enterprises to commence in the area.

PREFERRED LOCATIONS FOR RETAIL DEVELOPMENT

It is acknowledged that the provision of certain types of land uses will serve to attract visitors to the LSP site and consequently contribute to the activation of the public realm. Furthermore, the delivery of a mix of residential and non-residential uses can serve to improve the safety of an area, with people using the site at all times of the day and therefore providing 'eyes on the street' for passive surveillance. The activity generated from uses that attract people to a place can also in turn serve to improve the economic viability of retail outlets in the place. With the growth of activity can arise the growth of economic sustainability to the extent where additional retail outlets can be opened which serve to attract more people to a particular place. While this may not occur in all circumstances and may be limited by other external factors (i.e. population within a defined catchment), it demonstrates that the strategic delivery of the first attractors to a new space can serve to kick-start its development and evolution.

The preferred locations for non-residential land uses are outlined in **Figure 8 – Master Plan**. These locations are to provide guidance as to the preferred locations for these facilities and should be considered by a developer in the preparation of a Development Application for any of the Development Precincts within the LSP area.

4.5 MOVEMENT NETWORK

A Traffic Report has been prepared by Riley Consulting to support this Structure Plan, which assesses traffic generation and distribution, road reserve requirements, intersection capacity and path and public transport needs. This report is included in Appendix C.

The Traffic Report has been based on the indicative aspirational target yield of 470 additional dwellings, with the potential to generate up to 2,448 vehicle movements per day. Additional scenarios based on the low yield (306 dwellings) and indicative maximum yield (891 dwellings).

The key findings of the study are as follows:

- Analysis of the traffic generation suggests that the increase to local traffic movements would not be significant under any of the three yield scenarios and should not warrant upgrading of the local road system. All roads affected by the proposed redevelopment will continue to operate appropriate to their function. It is considered that the residential amenity of local streets will not be affected;
- All accesses are shown to perform with excellent Levels of Service during the peak periods;
- External intersections are not shown to be materially affected by the proposed development. It is therefore considered that the impacts of the proposed development would be deemed acceptable;
- Internal streets are suggested to be provided with a minimum road reservation of 16 metres. However, a wider road reservation may be suited to cater for on street parking and landscaping.

4.5.1 EXISTING NETWORK

Roads of importance to the assessment of development of the site are considered to be Knutsford Street, Swanbourne Street, Amherst Street, Stevens Street, High Street and Montreal Street.

KNUTSFORD STREET

Knutsford Street is a local access street constructed with a single carriageway 7 metre wide pavement, providing local access to adjacent land uses and terminating to the west of the site, adjacent to the Fremantle public golf course. Historical traffic flows provided by the City of Fremantle shows 402 vehicles per day (vpd) in April 2000 between Swanbourne Street and Chalmers Street. A peak hour count undertaken at Swanbourne Street indicates a daily flow closer to about 700vpd.

SWANBOURNE STREET

Swanbourne Street is classified as a local access street in the Main Roads WA (MRWA) functional road hierarchy. Its intersection with High Street is controlled by traffic signals, which would intimate that the road performs a function greater than "access" street and should be considered as a local distributor road (neighbourhood connector), being a road that local residents should use to access/egress the local area. A peak hour count undertaken at the existing roundabout at Knutsford Street indicates a daily flow of about 3,400vpd north of the roundabout and 2,500vpd south of the roundabout.

AMHERST STREET

Amherst Street provides a north-south connection between High Street and Watkins Street. It is constructed with a standard 7m carriageway and is restricted to right-in, left-in and left-out at High Street. Daily traffic flows on the MRWA website show 2,000vpd (9.4% heavy vehicles) to the south of High Street.

STEVENS STREET

Stevens Street would be classified as a local distributor road and links Carrington Road through to Hampton Road. Its intersection with Swanbourne Street is controlled with a roundabout. Daily traffic flows provided on the MRWA website indicate 727vpd to the west of Carrington Street. Historical data indicates 1,492vpd (November 2000) between Swanbourne Street and Solomon Street.

Land Use and Subdivision Requirements

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HIGH STREET

High Street lies to the north of the subject site and is a primary regional distributor linking Fremantle, Stirling Highway, Carrington Road and the Leach Highway. Montreal Street is located a few blocks east of the subject site and provides a north-south connection between Leach Highway and Samson Street.

4.5.2 IMPACT ON LOCAL ROAD NETWORK

The following summary of traffic impacts is provided based on the target yield of 470 dwellings. Please see Appendix C for a full analysis of impacts including modelling of the low yield scenario (306 dwellings) and indicative maximum yield scenario (891 dwellings).

KNUTSFORD STREET

Knutsford Street would be considered as a neighbourhood connector in the local road hierarchy and as a single carriageway road with a 7 metre pavement and a 20 metre road reservation, a maximum flow of 7,000vpd is advised by *Liveable Neighbourhoods*. However, existing residential development has direct lot access to Knutsford Street and amenity would be considered to be affected when the daily flow exceeds 5,000vpd (currently at 700vpd).

To the east, Knutsford Street is forecast to experience an increase from about 700vpd to about 790vpd. The future traffic flows are well within the recommended 5,000vpd set out by *Liveable Neighbourhoods*.

To the west, a larger attraction to Swanbourne Street is anticipated due to ease of access provided by the existing traffic signals at High Street. The increase is shown to be about 1,390vpd and will result in a forecast demand of 2,090vpd. The traffic forecast retains daily traffic flows below 5,000vpd and acceptable operation of Knutsford Street can be expected.

AMHERST STREET

Amherst Street is shown to attract about 230vpd from the site to access High Street/Stirling Highway. Although the increase is proportionately high, this is due to current low traffic demands of

2,000vpd. The forecast traffic demands are retained below 5,000vpd and current amenity would not be considered to be materially affected.

SWANBOURNE STREET

Swanbourne Street is an existing neighbourhood connector and north of Knutsford Street has limited access to existing residential lots. It is desirable to limit daily flows to less than 5,000 vehicles. The current flow is about 3,400vpd and the proposed development may increase the daily flow to about 4,600vpd. Although the increase is higher than the stated levels of *Liveable Neighbourhoods*, there are few alternative accesses to the area. Traffic will be naturally attracted to Swanbourne Street due to the ability to access High Street from the existing traffic signals. The increase shown may be less if traffic uses Chalmers Street to access High Street. However, this is subject to future intersection controls that may be determined through the Main Roads WA Leach Highway (High Street) upgrades.

CHALMERS STREET

Chalmers Street is forecast to attract traffic wishing to turn right onto High Street, due to the turn restrictions at Amherst Street. Although proportionately high, the forecast increase would retain daily traffic flows below 3,000vpd and residential amenity would not be affected (based on *Liveable Neighbourhoods* guidelines).

Should a roundabout be provided on High Street at Amherst Street then there is no expectation that traffic would use Chalmers Street.

4.5.3 ACCESS

All internal intersections are shown to carry less than 2,000vpd and simple priority control is appropriate. Priority control of the internal four-way intersection is appropriate under the *Liveable Neighbourhoods* guidelines.

All internal streets have relatively short lengths and speeding within the subject site would not be expected. No independent traffic management devices would be expected to be required within the internal road network.

Direct lot access is permissible to all internal streets. As daily volumes to Knutsford Street and Amherst Street are shown to be below 5,000vpd, direct lot access would be permissible. However, lot access to Amherst Street would need to be cognisant of the crest at Knutsford Street.

For multiple and grouped dwelling sites, combined accesses will be provided to car parks. Such accesses will need to conform to the requirements of AS2890.1.

4.5.4 CROSS-SECTIONS

A 16m road reservation would be recommended as a minimum for the internal access roads. **Figure 11** shows a typical cross section providing parking to both sides of the street. A wider road reservation may be provided to increase parking opportunity and increase landscaping opportunities.

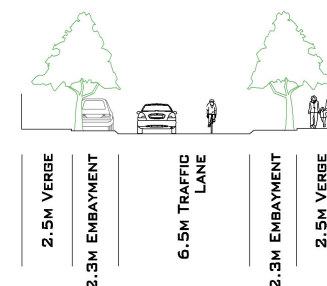


Figure 11 – 16m Road Reservation Cross Section

4.5.5 PEDESTRIAN AND CYCLING ACCESS

The site is ideally located within a short walk of Fremantle and local attractions. Fremantle railway station is located 1.8km north-east of the site and could be accessed by walking in about 25 minutes. This distance is probably too far for most residents and it can be expected that most would get a lift or catch a bus. South Terrace is

4. Land Use and Subdivision Requirements

located approximately 1.4km away and would be about a 20 minute walk.

All roads within the LSP area should be provided with at least one footpath. As the development is within an urban area it is highly desirable to provide a footpath to both sides of every street.

Cycling would be attractive from the site as the Fremantle city centre and railway station are within a 5 to 10 minute ride. Several cycle routes currently exist in the local area.

4.5.6 PUBLIC TRANSPORT

There are several bus services in the local area. Additional bus stops are located on High Street and Hampton Road.

4.6 STORMWATER MANAGEMENT

The current area of the site and the peripheral roads fall to a low point in the western power land opposite Stack Street at its intersection with Amherst Street. There is a fenced sump in that location that currently caters for the area.

A review of the catchment and the likelihood that the existing peripheral area will be developed, indicated that the existing sump is undersized which supported the advice that was received from Council.

As a result, it is proposed to install below ground storage on the site to cater for the development area. This is proposed by using a product such as the Humes Stormtrap or similar which has been used for the development at Lot 1354 Knutsford Street.

The below ground storage can be installed either in one location or distributed over the catchment; however a total volume of some 2,400 cubic metres will be required. This is based on the assumption that 1 cubic metre of storage will be required on development sites per 40 square metres of area, which provides for a 90% paved area on each site.

Road reserve areas will be allowed to drain into the below ground storage without any other detention.

Calculations and catchment plans are attached in Attachment B of **Appendix D** – Engineering Services Report, which illustrate the design catchment boundaries, the proposed storm trap arrangement if incorporated in one location at the lowest point and calculations which detail the assumptions made and the basis for those assumptions.

4.7 EDUCATION FACILITIES

The site is located in close proximity to the following public schools:

- Beaconsfield Primary School
- East Fremantle Primary School
- Fremantle College
- Fremantle Primary School/John Curtin College of the Arts
- White Gum Valley Primary School

The Department of Education is to confirm the primary school catchment in which the LSP area falls within and any obligations thereto.

4.8 INFRASTRUCTURE COORDINATION, SERVICING AND STAGING

The following information is based on preliminary advice from the various servicing authorities, which has informed the preparation of this Structure Plan and may be subject to change as development proceeds. Full details of engineering and servicing considerations are included in **Appendix D** – Engineering Services Report.

4.8.1 POWER

It is clear that sufficient power supply exists in the area to supply the development. There are existing 22kv Lines along Amherst Street and Knutsford Street with sufficient power to feed the development. Connection and extension will be made to the lines, subject to design approval of Western Power.

All subdivision power reticulation lines and transformer installations will be constructed at the cost of the developer. Transformer sites will be determined at the detailed subdivision design stage.

A 66kVA high voltage aerial power line is located along the Edmund Street extension between Knutsford Street and the Western Power switch station to the south of the site. Given the significance of this infrastructure and the cost to place that underground, the location of Edmund Street and the design levels have been proposed to ensure that the existing overhead scheme can remain.

4.8.2 SEWER

The site is not currently connected to sewer.

The site currently falls in an easterly direction. There is an existing sewerage connection located at the intersection of Stack Street and Amherst Street on the eastern edge of the site which will permit the extension of sewer to service the development area.

4.8.3 WATER

A 250mm reticulation water main has been constructed along Knutsford Street as part of the adjoining development.

Due to the higher levels of the land being developed, in particular the area west of Edmund Street, the Water Corporation has advised that some upgrading of the existing booster station on Swanbourne Street may be required. This is dependent on the ultimate density and level of the development.

Apart from this, standard water reticulation pipework will be required through the development area.

4.8.4 GAS

Gas mains are available in this area. The nearest ATCO gas main is located in Knutsford Street. Gas can be extended to the development by ATCO in the normal way, with trenching undertaken by the developer.

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Implementation

Implementation

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5.1 LAND ASSEMBLY

DevelopmentWA have been in the process of site acquisition with the Trustees of the Public Education Endowment (PEET) since 1992. The PEET site was leased to BP as a fuel depot until 2005 – after their lease BP were required to remediate the site to a ‘residential standard’. In 2005, PEET confirmed their intention to sell the PEET site to DevelopmentWA.

The Public Education Endowment Repeal 2023 is proposed to be presented to Parliament in 2025, after which time transactions affecting the land will be managed by DPLH. It is anticipated that DevelopmentWA will be able to acquire the site formally from DPLH in 2025.

5.2 MANAGEMENT PLANS AND TECHNICAL REPORTS

In accordance with the requirements of the Scheme, a number of Management Plans and Technical Reports will be required at various stages in the planning process.

The following documents have been prepared to inform the preparation of the LSP and are included as Technical Appendices in **Part 3**.

- Appendix B – Landscape Concept
- Appendix C – Traffic and Transport Impact Assessment
- Appendix D – Engineering Services Report

5.3 SUBDIVISION

Following approval of the LSP by the City of Fremantle and WAPC, a subdivision application(s) will be lodged for consideration and determination by the WAPC, on advice of the City of Fremantle and other relevant referral agencies. The subdivision application(s) will identify the proposed lot boundaries, road reserves and areas of public open space in accordance with the LSP and will facilitate the creation of the proposed Development Precincts. DevelopmentWA will then

release these lots to the market for purchase and delivery of the built form by a building developer.

5.4 DESIGN GUIDELINES

In addition to the requirements of the LSP, DevelopmentWA may, in consultation with the City of Fremantle, prepare architectural design guidelines to guide and control the built form outcomes for each of the Development Precincts. These design guidelines would address more style-based elements of the built form, such as preferred architectural character and building materials and colours. Such design guidelines may also include minimum standard sustainability measures to be incorporated into the building design and construction.

Further consideration will be given to using an Australian Height Datum (AHD) measurement or other appropriate height measure to cap the maximum height of new buildings over the site at the Design Guidelines/Local Development Plan(s) stage.

5.5 DEVELOPMENT APPLICATIONS

Development Applications (DAs) will be prepared for each individual Development Precinct. The DAs will provide detail regarding the proposed development, including the provision of parking, the proposed architectural form and compliance with the applicable standards and requirements of the *Part 1 – Structure Plan Statutory Provisions* for the relevant site.

Applicants proposing a development with an estimated cost of \$2 million or more (excluding single houses) may opt in to having the application determined by the Development Assessment Panel (DAP), with advice of the City of Fremantle and the WAPC.

5.6 ADDITIONAL SCHEME AMENDMENT

The City will do further work to investigate rezoning lots 2069 and 2070 (21 Knutsford Street) from ‘Facility-Community Facilities’ Reserve to ‘Development Zone – Development area 4’ under the City’s Local Planning Scheme No. 4, for the purpose of including the two lots into the LSP area at a later stage.

Appendix

APPENDIX A
CERTIFICATE OF TITLE

Appendix

APPENDIX B
LANDSCAPE CONCEPT

Appendix

APPENDIX C
TRAFFIC AND TRANSPORT IMPACT ASSESSMENT

Appendix

APPENDIX D
ENGINEERING SERVICES REPORT