Southern Cross Care

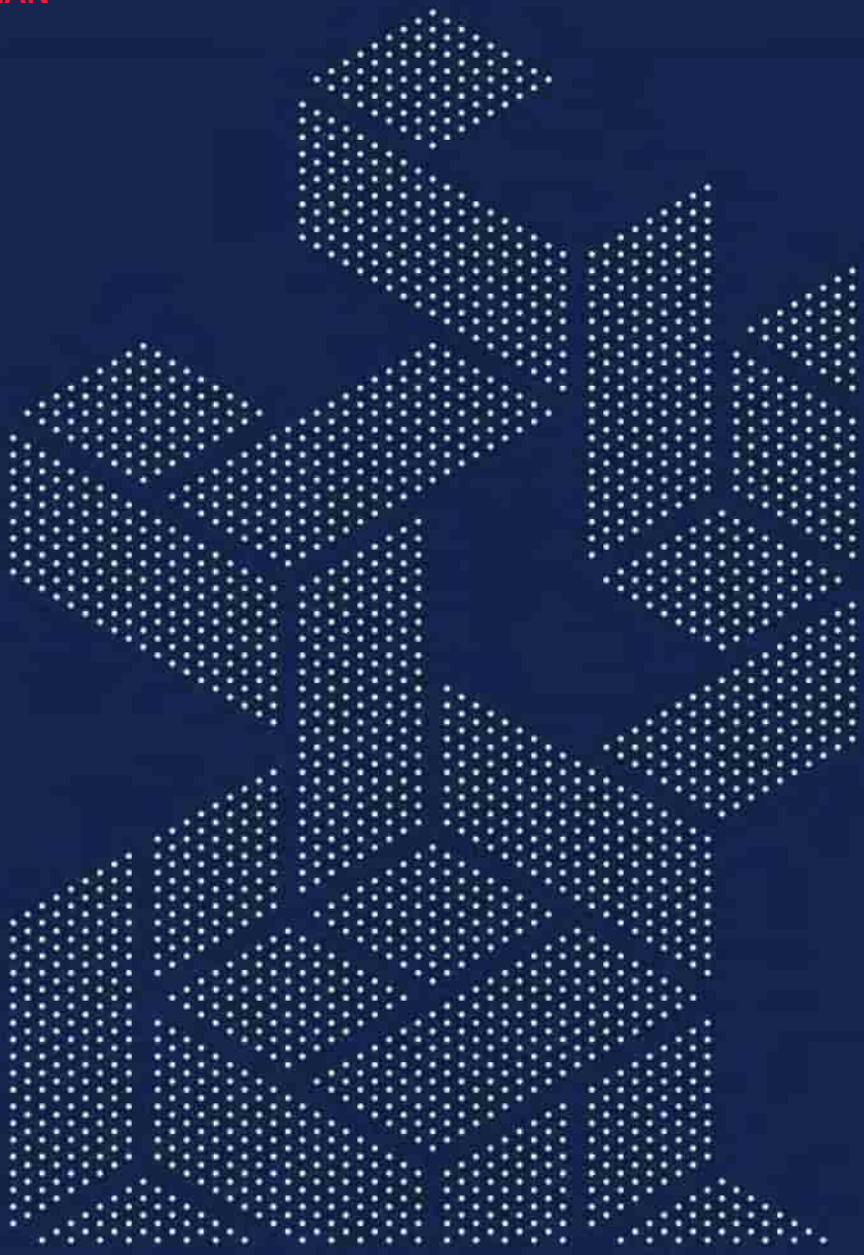
Carmelite Stage 2 Development

STORMWATER MANAGEMENT PLAN

WGA230682

WGA230682-RP-CV-0001_B

3 November 2025



Revision History

REV	DATE	ISSUE	ORIGINATOR	CHECKER	APPROVER
A	29/08/2025	Approval Issue	CH	CH	CH
B	3/11/2025	Updated	CH	CH	CH

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1 INTRODUCTION

1.1 Background

Wallbridge Gilbert Aztec (WGA) has been engaged by Southern Cross Care to prepare a preliminary stormwater management report for the proposed Stage 2 development at the Carmelite site in Myrtle Bank.

This report is intended to conceptually outline the stormwater design for the proposed development and detail the stormwater management methodology. A final detailed design should be carried out to provide construction documentation and incorporate the stormwater design principles outlined in this report. The final documentation is considered to be beyond the scope of this report.

1.2 Scope of the Assessment

The preparation of the plan comprises the scope of services listed below:

- Site visit.
- Prepare a Stormwater Management Plan detailing the proposed method of collection, treatment and the disposal of site generated stormwater runoff.
- Prepare a preliminary sketch plan showing possible site drainage infrastructure based on the Council's requirements.

1.2.1 Documentation

The client has provided preliminary Architectural plans for the development and an engineering survey.

2 DETAILED REPORT

2.1 Development Description

It is understood the proposed development comprises the construction of a two multi-storey apartment buildings, including the creation of undercroft and basement car parking areas, extensive landscaping and internal roads and on-grade car parking areas. Refer to Appendix A for a copy of the preliminary site plans prepared by Walter Brooke and Associates.

2.2 Catchment Description

The site is located on the north-western corner of Glen Osmond Road and Cross Road in Myrtle Bank. It is bordered by Spence Avenue to the west and the Glen Woodley Estate to the north.

Currently the site is mostly vacant. Several buildings were demolished in 2018, leaving the Arch Bishop's Residence as the only remaining building. The rest of the development consists of unsealed informal roads and hardstand areas and landscaping. Refer to Appendix B for a copy of the current aerial photo.

The proposed site for the new development is steep with falls typically from south-east to north-west. There is a fall of approx 10m over 200m. Refer to Appendix C for a copy of the engineering survey that shows the site levels.

Below are photos that show the current site conditions.

Figure 1: Northern Side of Site Looking East from Northern Boundary

Figure 2: Existing Arch Bishop's Residence Looking South-West from Northern Boundary

Figure 3: Eastern Side of Site Looking South-from Northern Boundary

Figure 4: Existing Arch Bishop's Residence Looking -West from Eastern Boundary

2.3 Existing Stormwater Drainage

The main existing stormwater infrastructure is a detention basin located to the western side of the site. This is approx. 260m³ in volume and is associated with the existing Stage 1 development. Several stormwater pipes discharge into the basin on the southern side (from Stage 1) and there are also pipes that enter from the north (that are associated with more informal swales on the northern boundary.

There is a 1500mm dia stormwater pipe running through the site (falling south to north) that collects stormwater runoff from catchments further upstream of the development site. This pipe ultimately discharges into a basin and creek system in Ridge Park further north of the site.

Refer to Appendix D for details of the existing stormwater drains and the photo below showing the existing detention basin.

Figure 5: Existing Detention Basin

2.4 Council Requirements

Discussions with Russell King (Senior Assets & Infrastructure Lead) at the City of Unley has indicated Council's preference that all stormwater run-off from the site is ultimately connected to their aquifer recharge and re-use site at Ridge Park and that detention requirements and designs are driven only by the capacity of the existing 1500mm diameter pipe main to carry the site's additional stormwater.

Council have advised that the existing detention basin at Ridge Park is able to achieve the required stormwater attenuation for the catchment and, as such, no detention storage is required for this Stage 2 development.

2.5 Stormwater Management Methodology

To address Council requirements, a preliminary stormwater management methodology has been prepared for the development and is outlined below.

Stormwater runoff from the new buildings will be collected by roof gutters and downpipes which will be connected to a series of underground stormwater pipes. Surface runoff from the new pavements will also be collected by grated inlet pits, trench grates and similar and connected to the underground stormwater system.

New underground stormwater drainage for Stage 2 will connect to the existing 1500mm dia stormwater pipe (in the north-western corner of the stie).

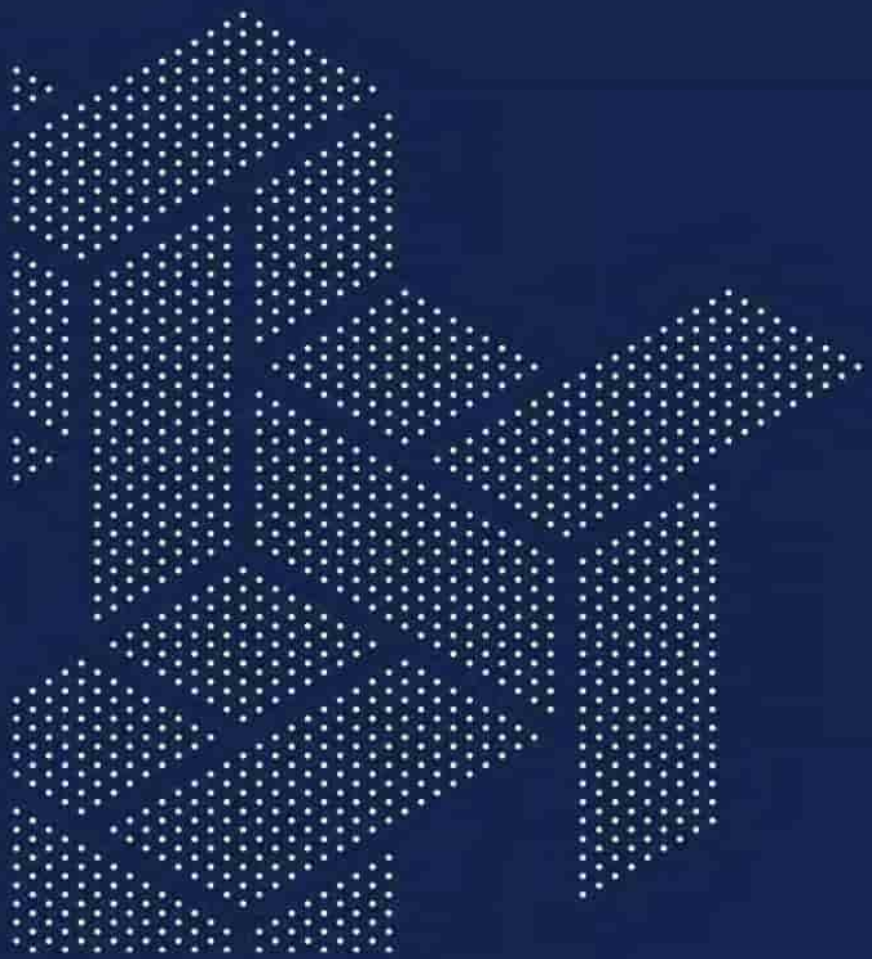
It is noted that the new development will impact on the existing stormwater detention basin constructed as part of Stage 1. The basin capacity is approximately 260m³. The stormwater pipework currently entering this basin will need to be re-directed as part of the Stage 2 work and the basin capacity replicated elsewhere on site (likely in the form of underground tanks). Two large pipes entering the existing basin must be intercepted to control and re-direct the Stage 1 stormwater run-off.

Refer to Appendix E for a copy of the sketch plan showing the proposed methodology of stormwater collection and disposal.

2.6 Summary

The Preliminary sketch plan contained within this report has been prepared to demonstrate the philosophy behind proposed management of the stormwater runoff from this development. The information provided is preliminary and will be subject to detailed design and documentation.

APPENDIX A
ARCHITECTURAL DRAWINGS



REASON FOR ISSUE	REV	DATE
For Approval	A	29-10-2025

SITE PLAN - OVERALL

1 : 350

WALTER BROOKE
ARCHITECTURE
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE
MASTER PLANNING

0 3.5 7 17.5

CARMELITE STAGE 2 DEVELOPMENT
7 SPENCE AVENUE, MYRTLE BANK SA, 5064

SITE PLAN - OVERALL	DRAWING	DA02
29-10-2025	REVISION	A
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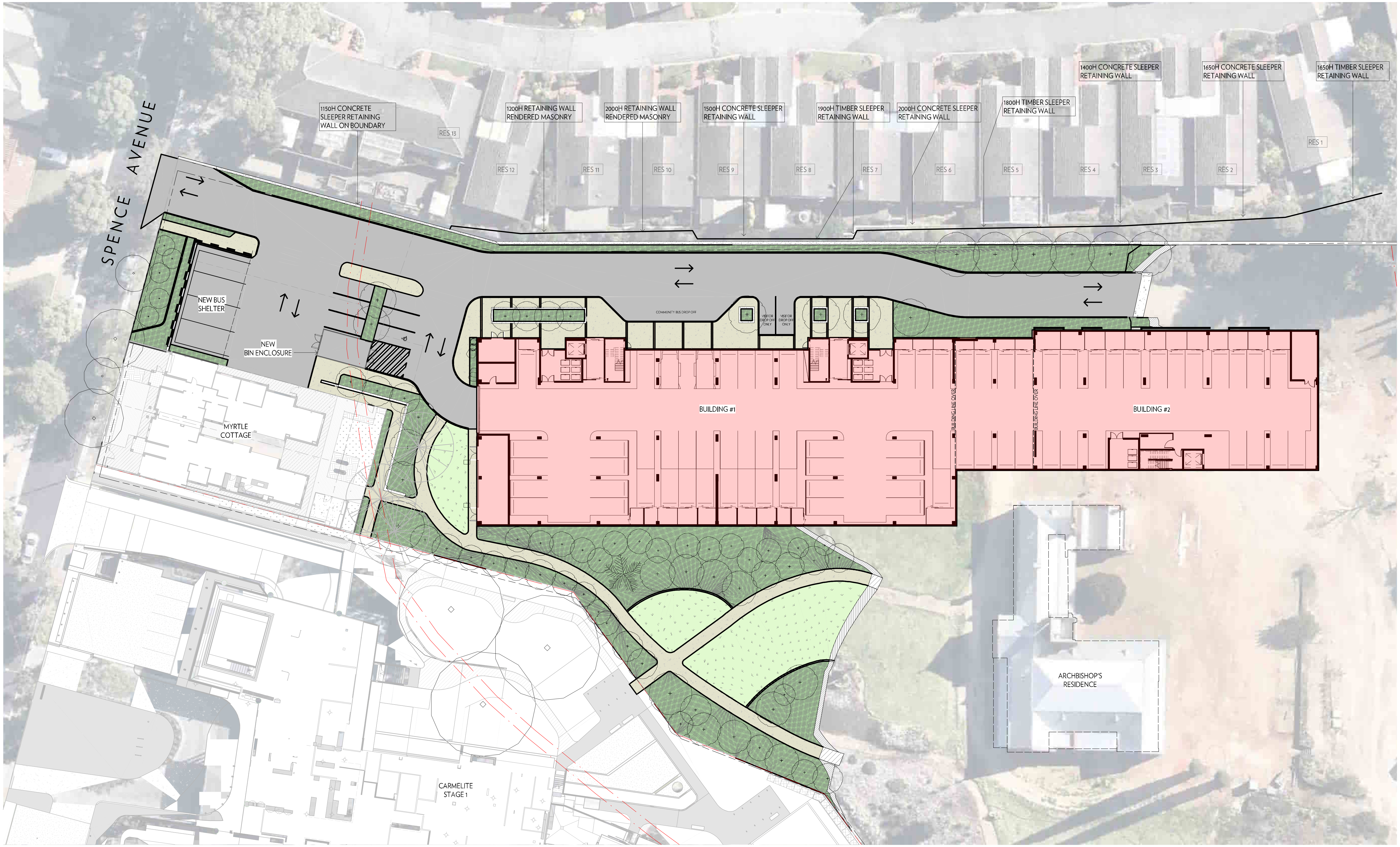

SITE PLAN - LOWER

1 : 250

REASON FOR ISSUE	REV	DATE
For Approval	A	29-10-2025

WALTER BROOKE

ARCHITECTURE
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE
MASTER PLANNING

0 2.5 5 12.5

CARMELITE STAGE 2 DEVELOPMENT
7 SPENCE AVENUE, MYRTLE BANK SA, 5064

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29-10-2025	REVISION	—	A
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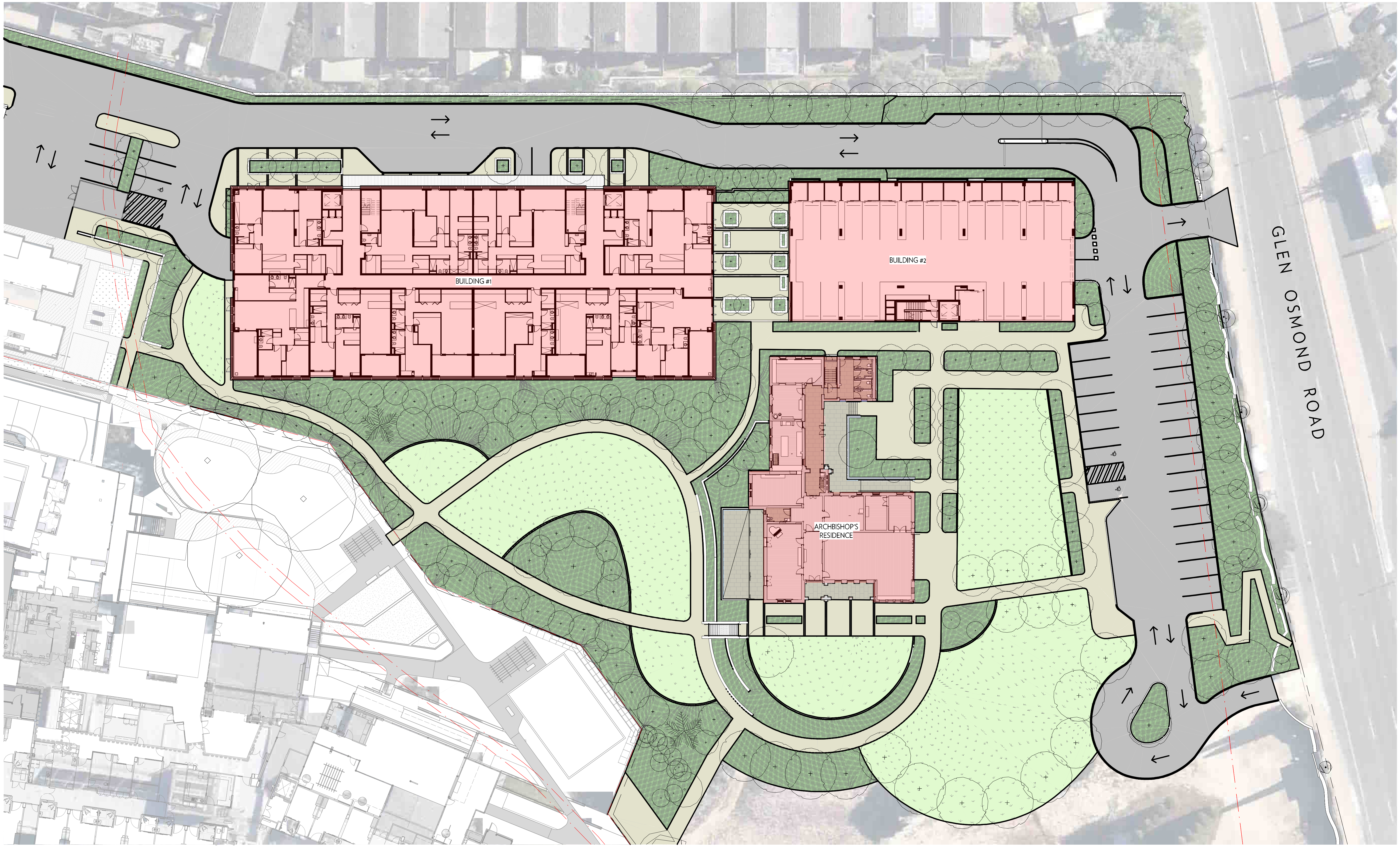


SITE PLAN - UPPER

1 : 250

REASON FOR ISSUE	REV	DATE
For Approval	A	29-10-2025

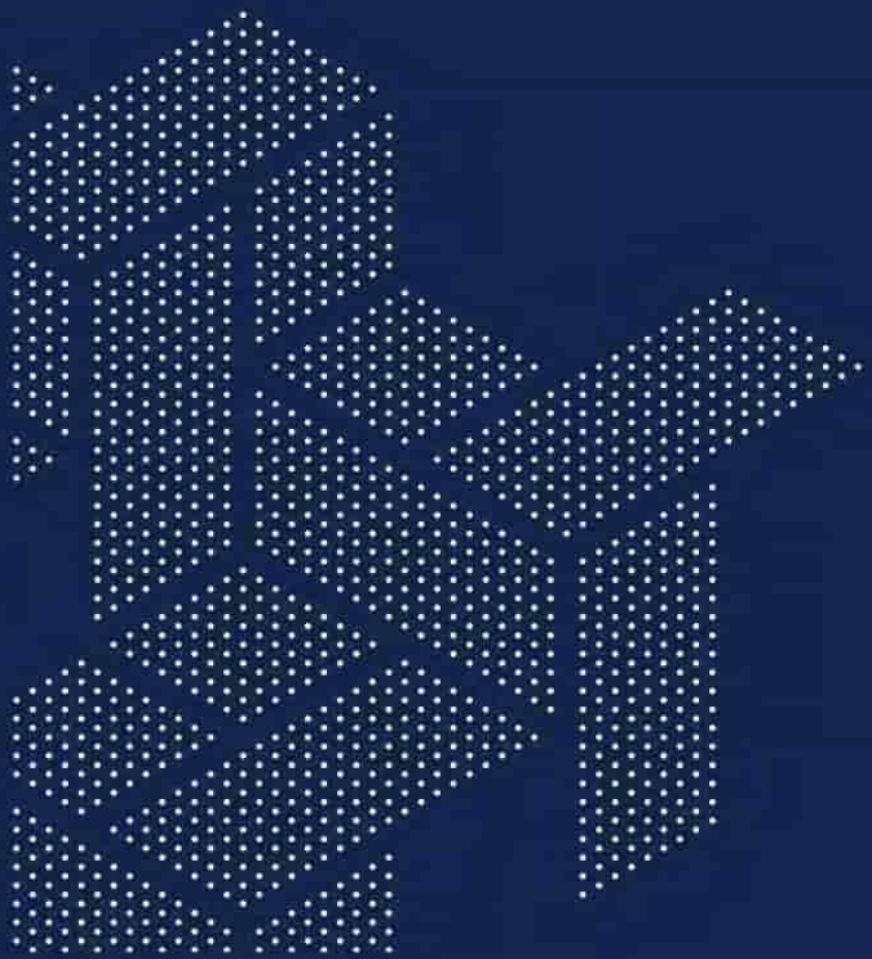
WALTER BROOKE
ARCHITECTURE
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE
MASTER PLANNING

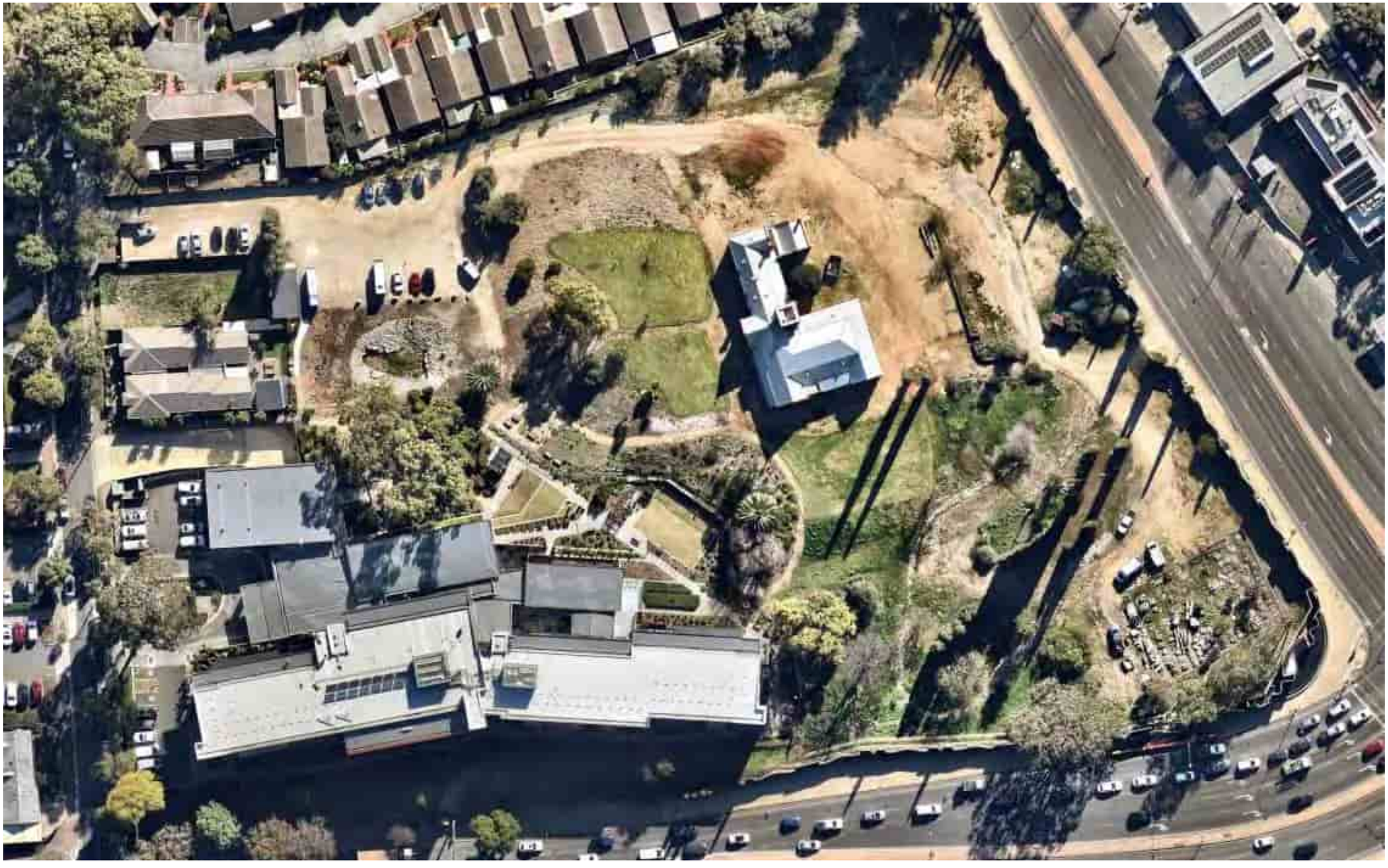
0 2.5 5 12.5

CARMELITE STAGE 2 DEVELOPMENT
7 SPENCE AVENUE, MYRTLE BANK SA, 5064

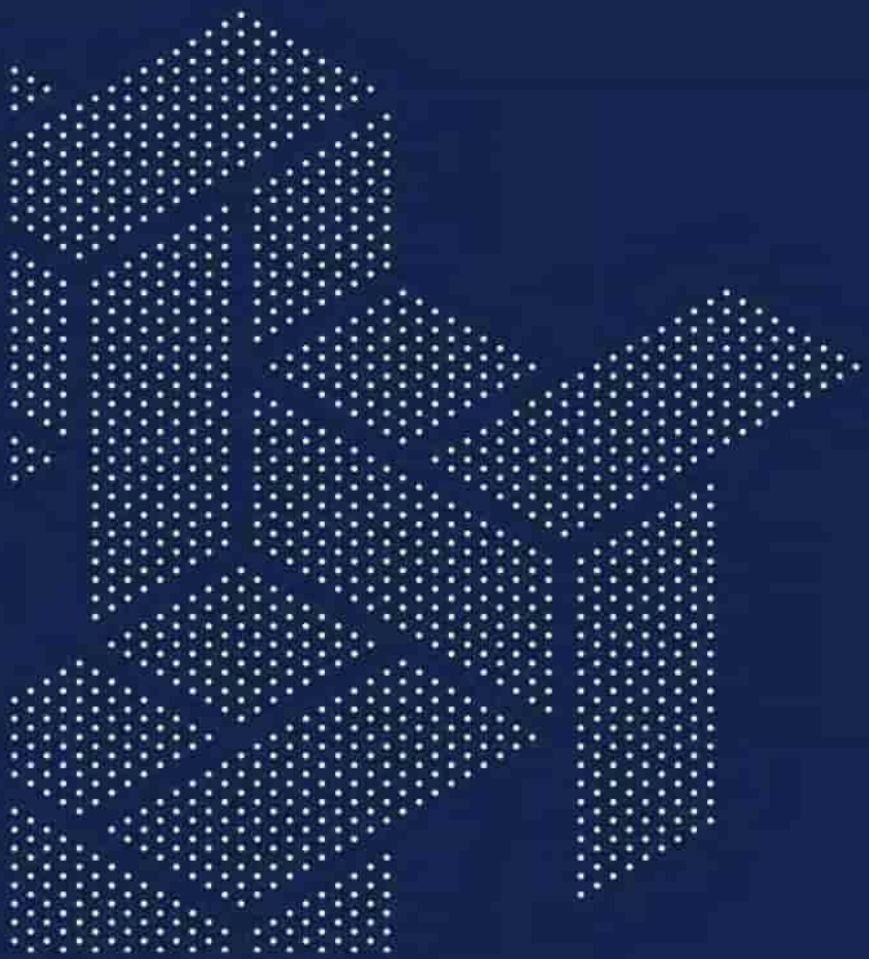
SITE PLAN - UPPER	DRAWING	DA04
29-10-2025	REVISION	A
1 : 250 @A1	PROJECT	23-0628

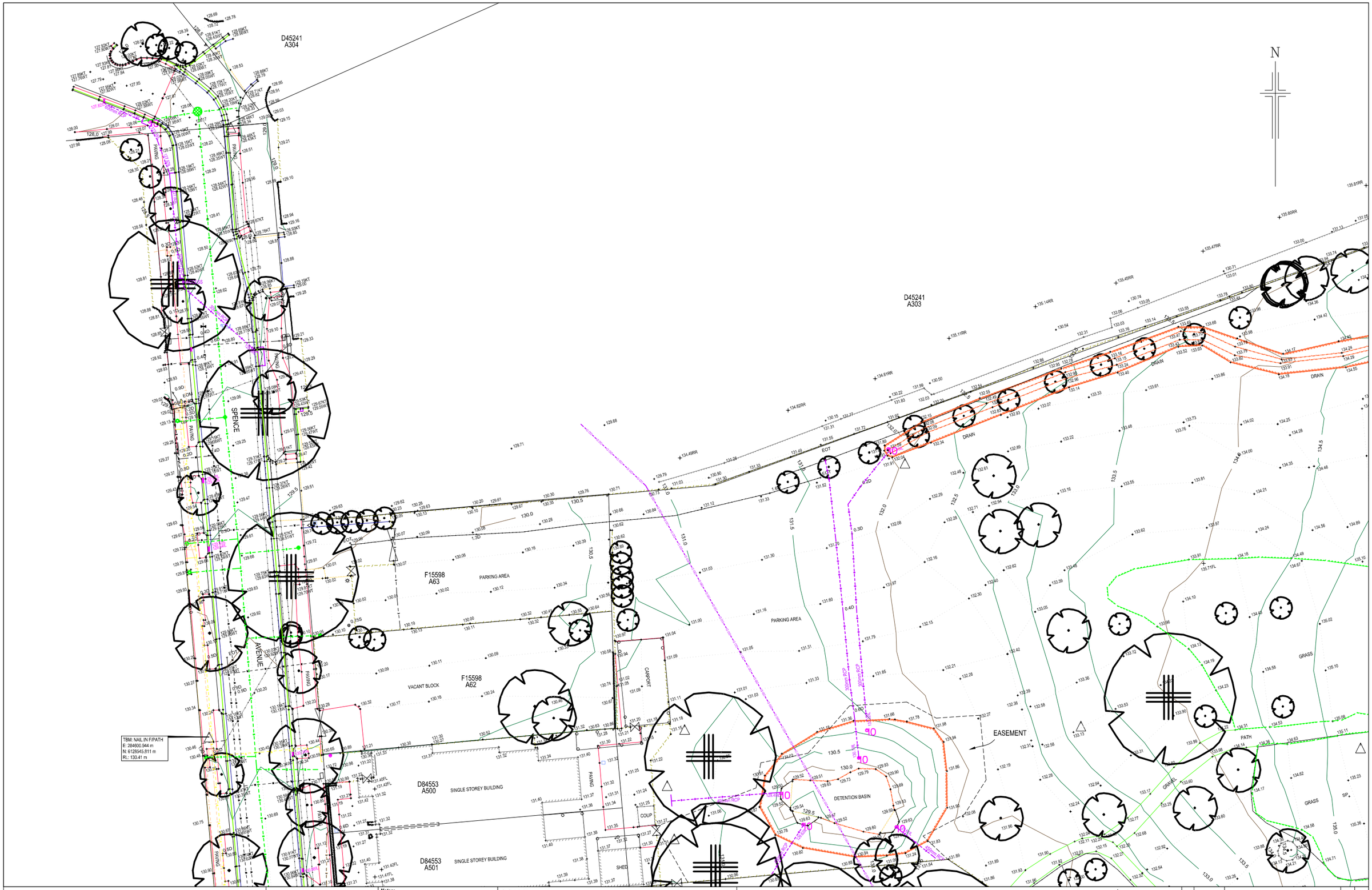
APPENDIX B
AERIAL PHOTOGRAPHS





APPENDIX C
ENGINEERING SURVEY





DETAIL AND LEVEL SURVEY
CARMELITIE
MYRTLE BANK, SA

DRAWING No. T013023 DETAIL(0)

SHEET 1 OF 4

REVISION 0

360 SURVEYING
Land Development Made Easy
Phone: (08) 8440 2412
Email: info@360surveying.com.au

Notes:
Property boundaries shown have been compiled from government records and have not been verified by field survey.
The location of underground service data shown has been determined by Fleurieu Subsurface. All services must be verified before any construction or excavation. 360 Surveying is not liable for any errors or omissions

COORDINATE BASE			COORDINATE SYSTEM		
PSM 6628/15167	E:	133.105	VERTICAL:	AHD	
	N:	284610,651	HORIZONTAL:	GROUND	
PSM 6628/9255	RL:	6128441,670		TO: MGA 2020 ZONE 54	
SDB denotes SA Government survey data base values (Dated: 03/09/2023)			SCALE: GROUND (CSF = 1.00014971)		
			© 360 Surveying		

SCALE
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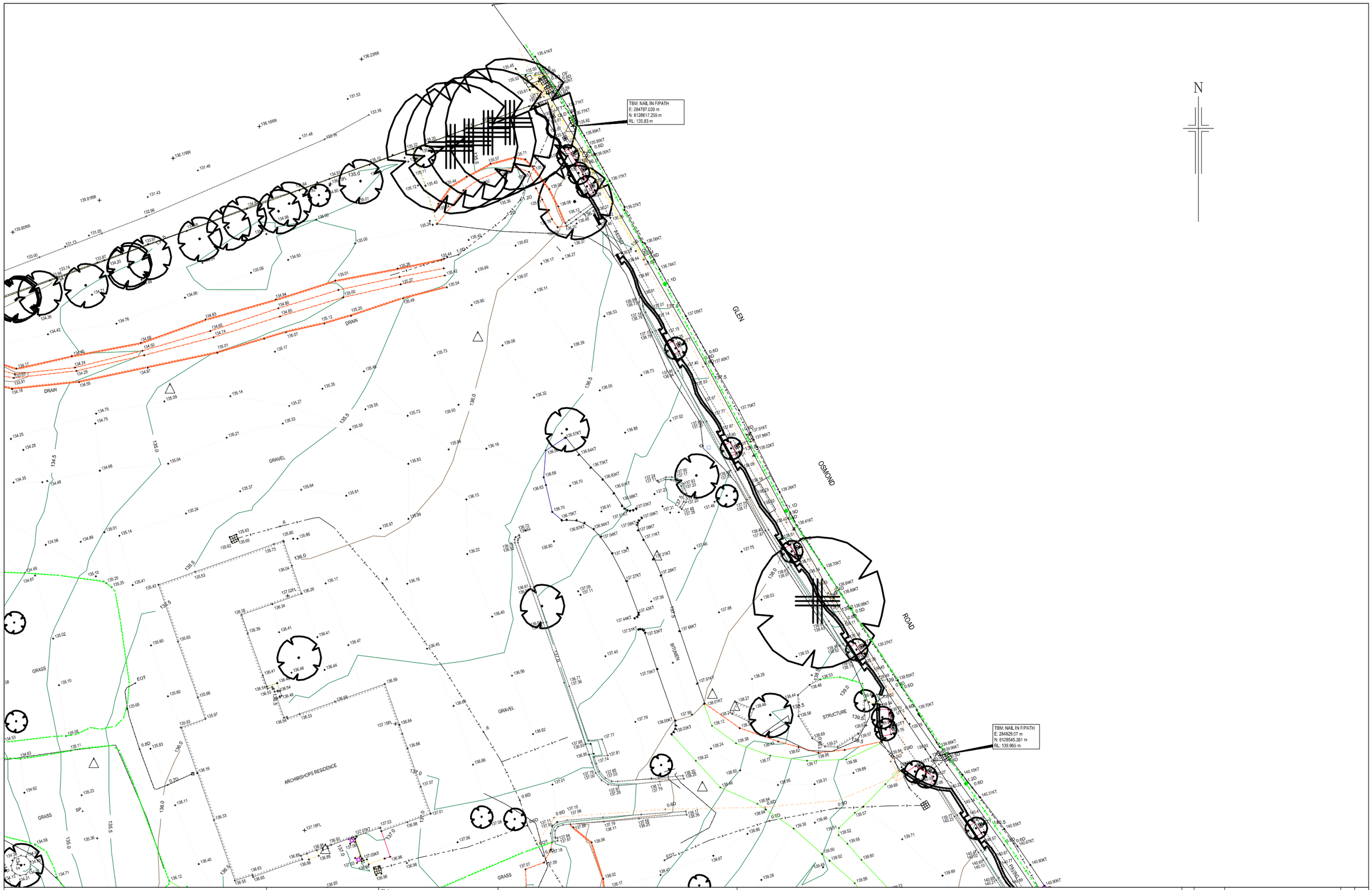
CONTOUR INTERVAL:	0.5m / 2.0m	
SURVEY:	TSJ/DF	SEPT 2023
DRAWN:	CF	12/09/2023
CHECKED:	TSJ	15/09/2023
ORIGINAL SHEET SIZE A1		

Legend

- Building / Wall
- Edge Bitumen
- Edge Concrete
- Edge Track
- Fence
- Gate
- Change of Grade
- Top of Bank
- Bottom of Bank
- Stormwater Drain
- Spoon Drain
- ELEC Underground
- GAS Underground
- SEWER Underground
- COMMS Underground
- WATER Underground
- RAIL TRACKS
- 55.69KT Kerb Top
- 50.35 Natural Surface
- 69.29 O/H Structure
- 67.70WT Top Height
- 49.30WT Water Table
- 44.23IL Invert Level
- Sewer MH / Sewer IP
- Water Topstone
- Gas Topstone
- Electricity Topstone
- Telecomm Topstone
- Gas Meter
- Water Meter
- Air Conditioning Unit
- Bollard
- Boreholes
- Drainage Downpipe
- Drainage Grating
- Electrical Cable Marker
- Fence Post
- Hydrant
- Irrigation Sprinkler
- Irrigation Control Valve
- Light Pole / In Ground Light
- Road Sign
- Stormwater M/H
- Telecomm Cable Marker
- Water Tap
- One Sided Sign
- Two Sided Sign
- Shrub
- Tree
- Signicant Tree
- Survey Station

REV	DATE	DESCRIPTION	CALC	FIELD
AMENDMENTS				



DETAIL AND LEVEL SURVEY
CARMELITIE
MYRTLE BANK, SA

DRAWING No. T013023 DETAIL(0)

SHEET 3 OF 4

REVISION 0

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SCALE

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SDB denotes SA Government survey data base values (Dated: 03/09/2023)			SCALE: GROUND (CSF = 1.00014971)			ORIGINAL SHEET SIZE A1	

Legend

Building / Wall
Edge Bitumen
Edge Concrete
Edge Track
Fence
Gate
Change of Grade
Top of Bank
Bottom of Bank
Stormwater Drain
Spoon Drain

ELEC Underground
GAS Underground
SEWER Underground
COMMS Underground
WATER Underground
RAIL TRACKS

50.59KT Kerb Top
50.35 Natural Surface
49.29 OH Structure
57.70HT Top Height
49.30WT Water Table
44.23IL Invert Level

Sewer MH / Sewer IP
Water Topstone
Gas Topstone
Electricity Topstone
Telecomm Topstone
Gas Meter
Water Meter

Air Conditioning Unit
Bollard
Borehole
Drainage Downpipe
Drainage Grating
Electrical Cable Marker
Fence Post
Hydrant
Irrigation Sprinkler
Irrigation Control Valve

Light Pole / In Ground Light
Road Sign
Stormwater MH
Telecomm Cable Marker
Water Tap
One Sided Sign
Two Sided Sign
Shrub
Tree
Signicant Tree
Survey Station

REV	DATE	DESCRIPTION	CALC	FIELD
		AMENDMENTS		

DETAIL AND LEVEL SURVEY
CARMELITIE
MYRTLE BANK, SA

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SCALE
0 2 4 6 8 10 1:200

COORDINATE BASE			COORDINATE SYSTEM		CONTOUR INTERVAL: 0.5m / 2.0m
PSM 6628/15167	E:	133.105	VERTICAL:	AHD	SURVEY: TSJ/DF SEPT 2023
	N:	284610.651	HORIZONTAL:	GROUND	DRAWN: CF 12/09/2023
PSM 6628/9255	RL:	6128441.670		TO: MGA 2020 ZONE 54	CHECKED: TSJ 15/09/2023
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Legend

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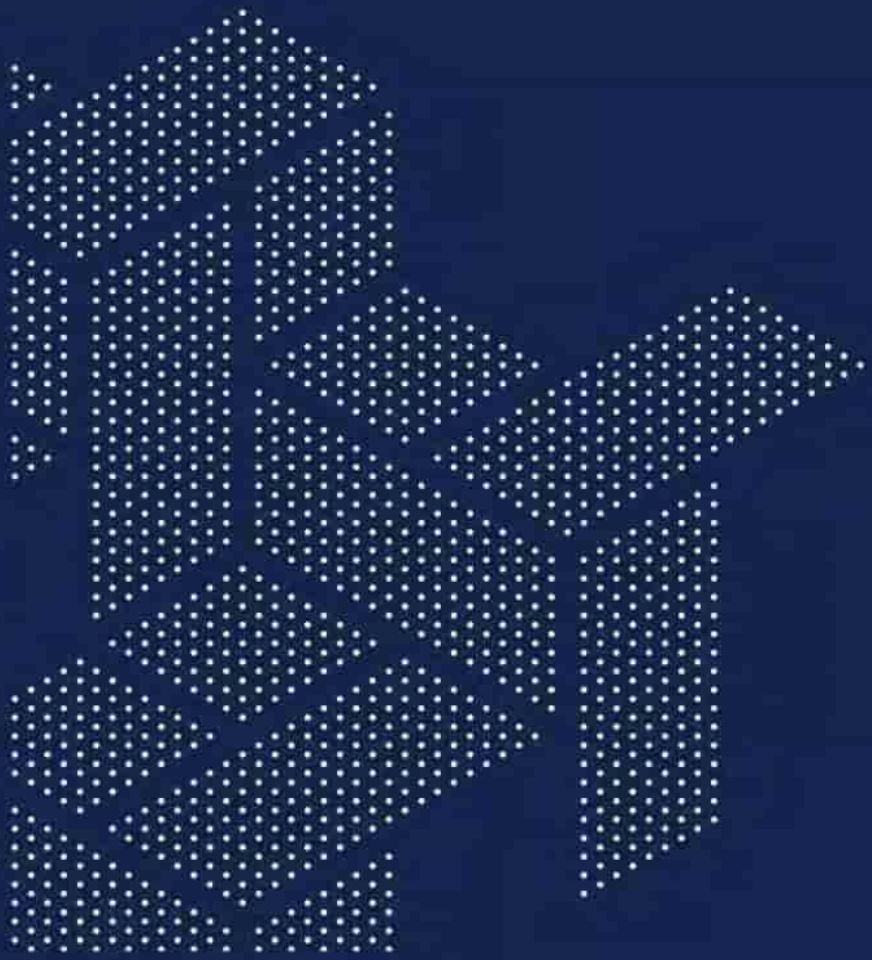
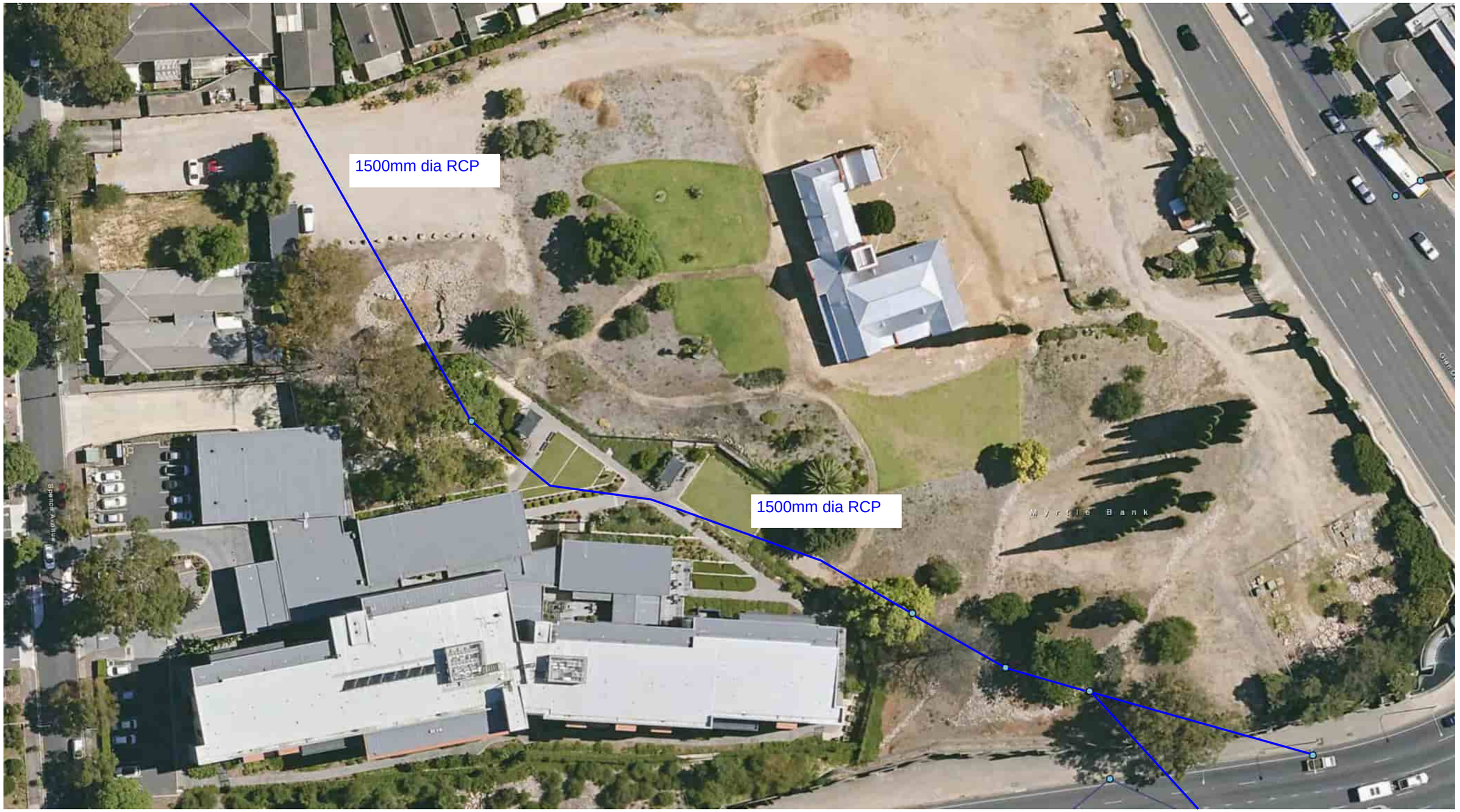
- Light Pole / In Ground Light
- Road Sign
- Stormwater MH
- Telecomm Cable Marker
- Water Tap
- One Sided Sign
- Two Sided Sign
- Shrub
- Tree
- Significant Tree
- Survey Station

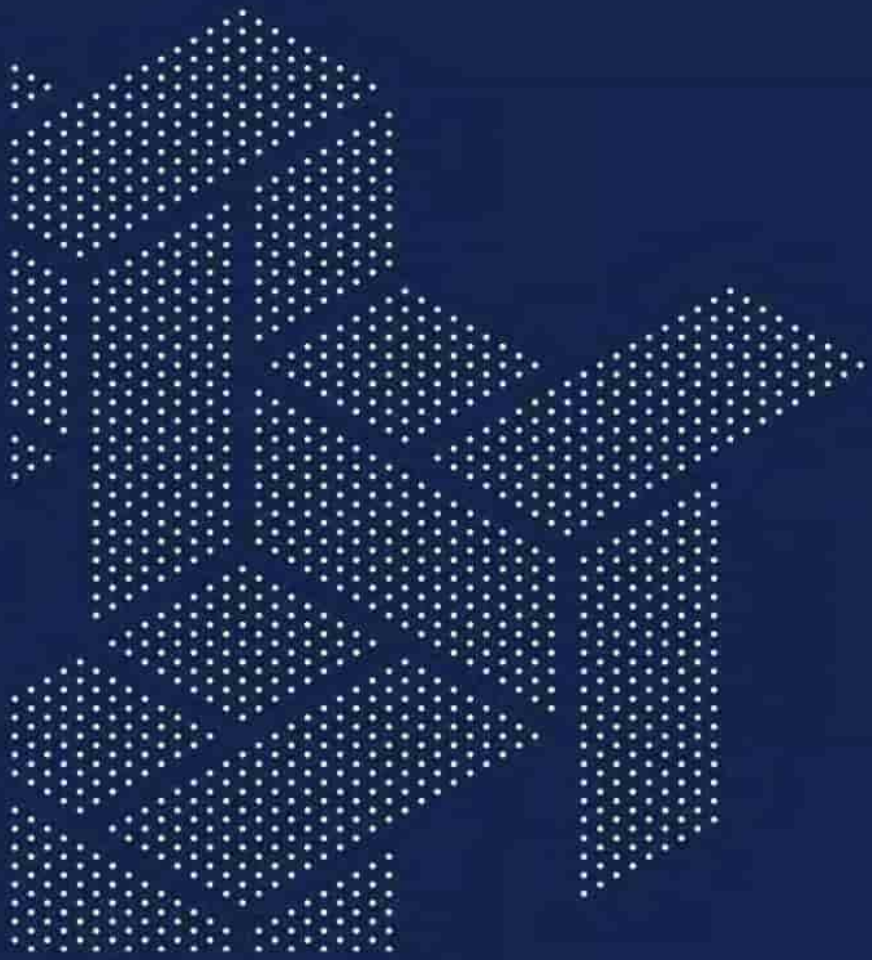
REV	DATE	DESCRIPTION	CALC	FIELD
		AMENDMENTS		

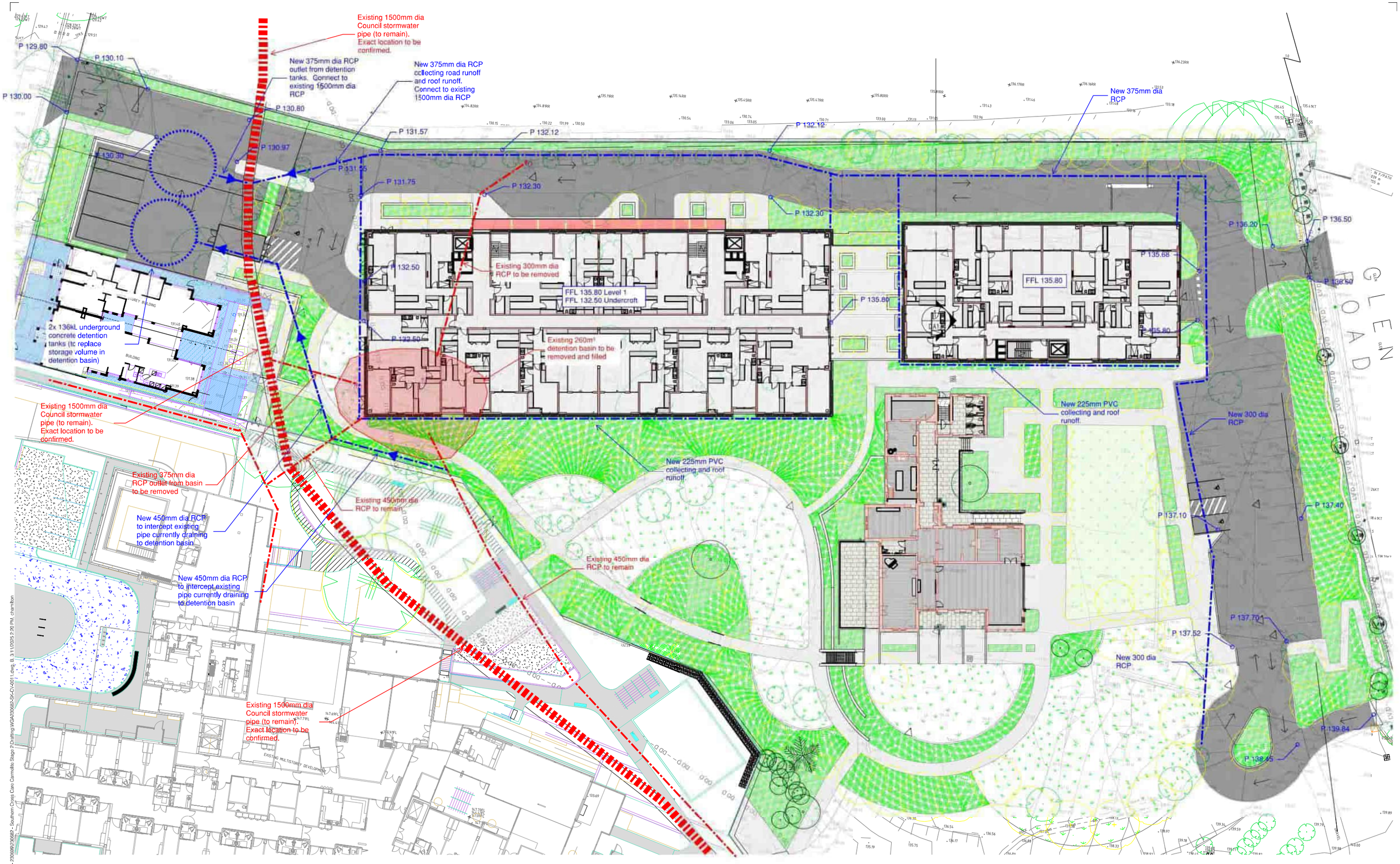
APPENDIX D
EXISTING STORMWATER DRAINAGE




1500mm dia RCP
1500mm dia RCP
Myrtle Bank
Spencer Avenue

APPENDIX E
PRELIMINARY STORMWATER PLAN





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PRELIMINARY ISSUE
NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	DRAFT	ENG.	CHKD
A	26.08.25	PRELIMINARY ISSUE	CJH	C HILL	C HILL
B	03.11.25	UPDATED LAYOUT	CJH	C HILL	C HILL

WGA

CARMELITE - STAGE 2
SOUTHERN CROSS CARE
7 SPENCE AVENUE, MYRTLE BANK S.A. 5064
STORMWATER MANAGEMENT PLAN ©

A1 DOCUMENT NUMBER
Project Number Sheet No, Rev,

Design WRS Drawn JPF WGA230682-SK-CV-0011 B

WGA

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Principal Civil Engineer

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E chill@wga.com.au

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