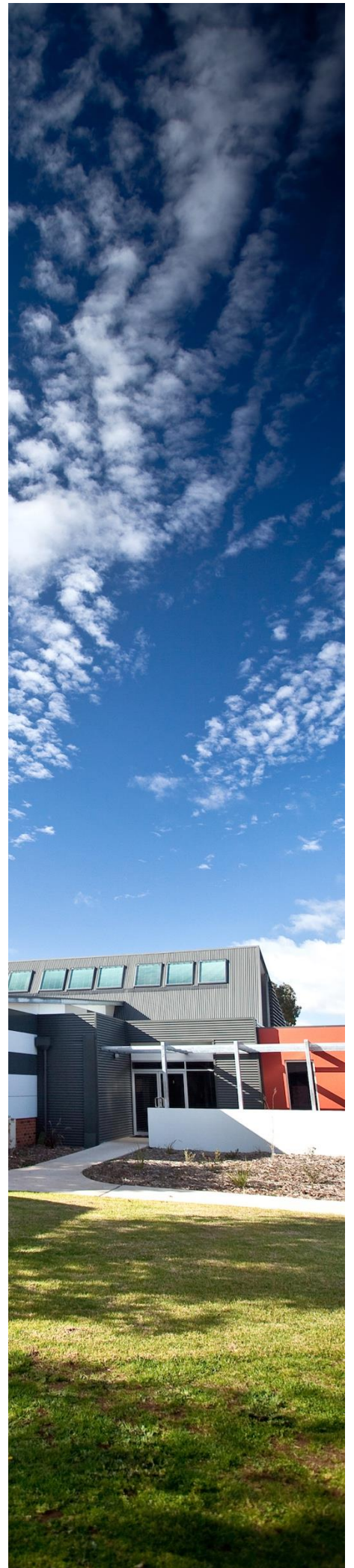




Bush Fire Assessment Report

Maari Ma Wilcannia Clinic
Bonney Street
Wilcannia


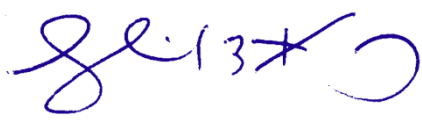
(Our Reference: 32342-BR01_A)
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Report Title:	Bush Fire Assessment Report
Project Name:	Maari Ma Wilcannia Clinic
Client:	Troppo Architects
Project No.	32342
Report Reference	32342-BR01_A
Date:	6/4/21
Revision:	Final

Prepared by:	Reviewed by:
	
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1 INTRODUCTION

1.1 Background

This Bush Fire Assessment Report (BFAR) has been prepared to accompany a Development Application (DA) for the Maari Ma Wilcannia Clinic on Lot 111 DP 1201028 and Lots 2-4 DP 1201089, Bonney Street, Wilcannia. The purpose of this report is to provide a bushfire assessment for the proposed development in accordance *Planning for Bushfire Protection 2019* (PBP).

1.2 Proposed Development

The development site is located in the township of Wilcannia within the Central Darling Shire Local Government Area. The proposed complex includes a new primary health care facility consisting of the following; car parking, ambulance and drop of areas, 'keeping well' section, never centre, 'healthy start' section, entry deck and elders deck, community/gathering areas and landscaping throughout.

Refer to the Development Plans in **Appendix A** of this report.

1.3 Legislative Requirements

1.3.1 Environmental Planning and Assessment Act 1979

1.3.1.1 Integrated Development

The proposed development is integrated development by virtue of Section 4.46 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as it requires both development consent and authorisation under Section 100B (Bushfire Safety Authority) of the *Rural Fires Act 1997* in order for it to be carried out.

1.3.1.2 Bush Fire Prone Land

The subject site is designated as bush fire prone land, pursuant to Section 10.3 of the EP&A Act. The site is identified as containing Category 3 Vegetation and Vegetation Buffer on the Bush Fire Prone Land Map as shown in **Figure 1** below.



Source: (NSW Planning & Environment, 2021)

Figure 1 – Bush Fire Prone Land Map

1.3.1.1 Rural Fires Act 1997

Section 100B of the *Rural Fires Act 1997* (RF Act) requires a Bush Fire Safety Authority to be obtained before developing bushfire prone land for certain purposes. These purposes include development of bush fire prone land for a Special Fire Protection Purpose, which encompasses the proposed development.

Clause 44 of the *Rural Fires Regulation 2013* outlines the requirements for inclusion in any application for a Bush Fire Safety Authority. This report has been prepared to provide the information required by Clause 44. A checklist for the Clause 44 matters is provided in **Appendix B**.

1.3.1.2 Planning for Bush Fire Protection

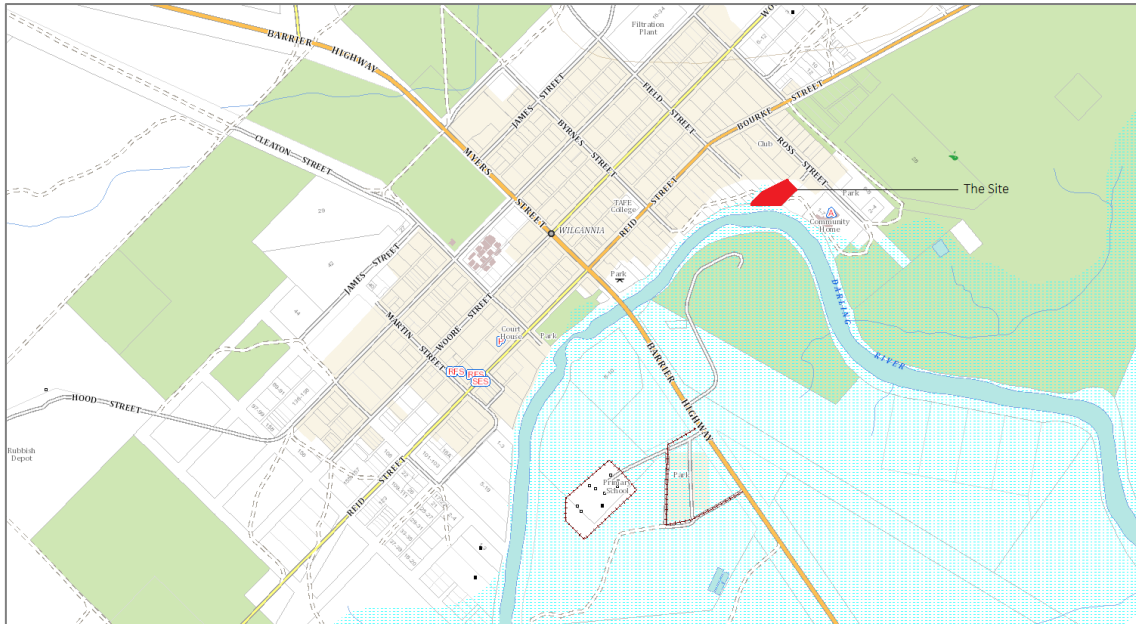
The New South Wales' Rural Fire Service's (RFS) *Planning for Bush Fire Protection 2019* (PBP) applies to all DAs in bush fire prone land.

This report has been prepared to address the requirements of PBP, specifically as a Special Fire Protection Purpose (SFPP). Considering the nature of the development proposal, a merit's based assessment of PBP has also been undertaken.

2 THE SITE & ITS SURROUNDS

2.1 Site Location

The site is located on a vacant site in the township of Wilcannia, as shown in **Figure 2** below. The site is located in the Dubbo Regional Local Government Area.



Source: (NSW Government Spatial Services, 2021)

Figure 2 – Site Location

2.2 Site Details

The site is comprised of Lot 111 DP 1201028 and Lots 2-4 DP 1201089 and has a combined property area of approximately 4945m². Refer to the Detail Survey provided in **Appendix B** of this report.

The site has direct frontage to Bonney Street, which is an unformed road that connects to Ross Street. There are trees scattered throughout the site and within proximity, as shown in **Figure 3** below.



Source: (NearMaps, 2021)

Figure 3 – Site Aerial



Source: (NSW Planning & Environment, 2020)

Figure 4 – Zoning Map

The site is zoned R1 General Residential pursuant to the provisions under the *Central Darling Local Environmental Plan 2012* as shown in **Figure 4** above. The wider locality is generally zoned R1 Primary Production RU1 lands located to the east, and W1 Natural Waterways and RE2 Private Recreation.

2.3 Environmental Considerations

2.3.1 Environmentally Significant Features

No matters of environmental significance have been identified for the site and there is no known areas of high biodiversity on the site or within proximity.

2.3.2 Threatened Species, Populations and Ecological Communities

No ecological assessments are known to have been undertaken for the site. The site is however heavily disturbed as a result of the previous and current land uses.

2.3.3 Indigenous Heritage

An Aboriginal Heritage Information Management System (AHIMS) Search was undertaken for the site which revealed that no items of indigenous heritage have been recorded as being identified on the site.

3 BUSH FIRE ASSESSMENT

3.1 Methodology

The methodology utilised for the bush fire assessment is outlined in A1.1 of the PBP. The following provides the required information in accordance with the methodology.

3.2 Bush Fire Fuels

Pursuant to Appendix 1 of PBP, all vegetation within 140m of the site (assessment area) has been classified in accordance with *Ocean Shores to Desert Dunes* (Keith, 2004) and Figure 2.3 of AS3959. Photographs of the vegetation from the site inspection carried out on 12 March 2021 are provided in the following plates for each assessment plot.

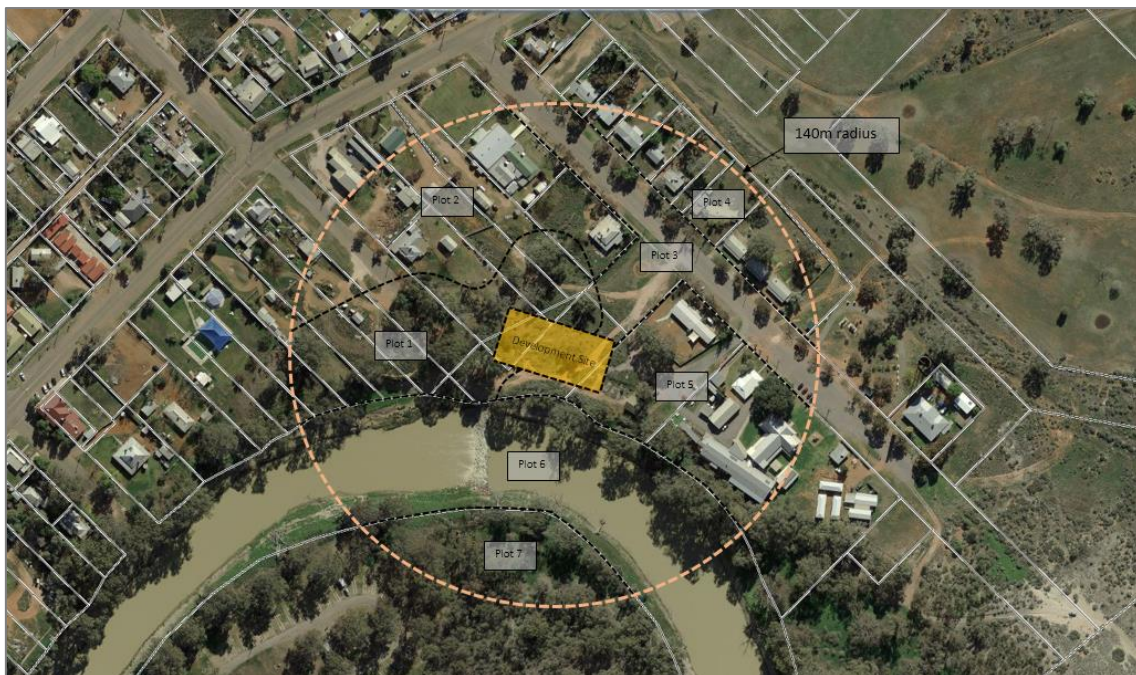






Figure 5 – Vegetation Classification

Plot 1	
Existing Classification:	Managed vegetation
Post Development Classification:	Managed vegetation
Description:	Managed vegetation within the existing urban area of Wilcannia. Some Eucalypts.

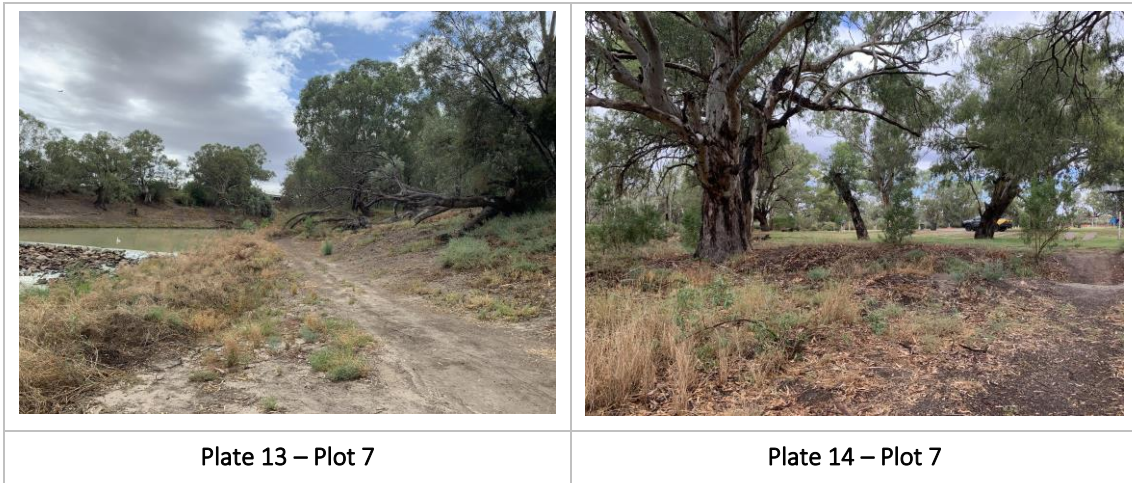
	
<p align="center">Plate 1 – Plot 1</p>	<p align="center">Plate 2 – Plot 1</p>

<p>Plot 2</p>	
<p>Existing Classification:</p>	<p>Managed vegetation</p>
<p>Post Development Classification:</p>	<p>Managed vegetation</p>
<p>Description:</p>	<p>Managed vegetation within the existing urban area of Wilcannia.</p>
	
<p align="center">Plate 3 – Plot 2</p>	<p align="center">Plate 4 – Plot 2</p>

<p>Plot 3</p>	
<p>Existing Classification:</p>	<p>Managed vegetation</p>
<p>Post Development Classification:</p>	<p>Managed vegetation</p>
<p>Description:</p>	<p>Managed vegetation within the existing urban area of Wilcannia.</p>

	
Plate 5 – Plot 3	Plate 6 – Plot 3
Plot 4	
Existing Classification:	Managed vegetation
Post Development Classification:	Managed vegetation
Description:	Managed vegetation within the existing urban area of Wilcannia.
	
Plate 7 – Plot 4	Plate 8 – Plot 4
Plot 5	
Existing Classification:	Managed vegetation
Post Development Classification:	Managed vegetation
Description:	Managed vegetation within the existing urban area of Wilcannia.

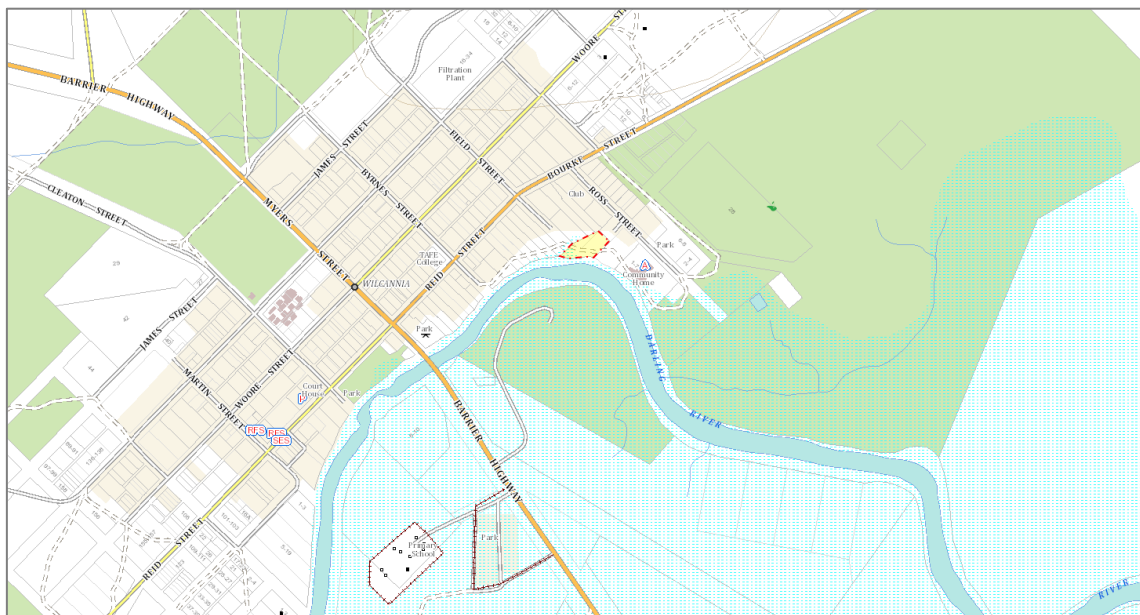
	
Plate 9 – Plot 5	Plate 10 – Plot 5
Plot 6	
Existing Classification:	Forested wetlands
Post Development Classification:	Forested wetlands
Description:	Riparian vegetation consisting of small trees, bushes and grasses.
	
Plate 11 – Plot 6	Plate 12 – Plot 6
Plot 7	
Existing Classification:	Woodland
Post Development Classification:	Woodland
Description:	Woodlands consisting of Eucalypts and other native species.



3.3 Topography

Pursuant to Appendix 1.4 of PBP, contour data has been sourced from the NSW Spatial Information Exchange Mapping system. The contour data was verified by ground truthing during the site inspection. A Detail Survey of the site has also been prepared and is provided in **Appendix B** of this report.

The land is relatively flat throughout, with the wider locally falling towards the Darling River, which is to the south west of the subject site.



Source: (NSW Government Spatial Services, 2021)

Figure 6 – Topography

3.4 Fire Weather Area

The subject site is located within the Central Darling Shire LGA. Pursuant to Table A1.6 of the PBP, the relevant Forest Fire Danger Index (FFDI) for the site is 80.

3.5 Asset Protection Zone Determination

The relevant Asset Protection Zones (APZ) are to be determined based on Table A1.12.3 of PBP. Accordingly, an assessment is provided in **Table 1** below.

Table 1 – Asset Protection Zone Determination			
Plot	Vegetation Class	Effective Slope	APZ
1	Managed vegetation	Upslope/flat	N/A
2	Managed vegetation	Upslope/flat	N/A
3	Managed vegetation	Upslope/flat	N/A
4	Managed vegetation	Upslope/flat	N/A
5	Managed vegetation	Upslope/flat	N/A
6	Forested wetlands	>5-10 ⁰	16m
7	Woodland	>0-5 ⁰	13m

Plots 1-5 are considered urban environments and are managed, therefore an APZ is generally not required for these plots. For Plots 6 and 7 however, the worst case APZ required for the proposed structures is 16m. Considering the scale of the development, it is recommended that a minimum 20m APZ is applied for Plots 6 and 7.

3.6 Bushfire Attack Level Assessment

The Bushfire Attack Level (BAL) assessment has been determined as per Table A1.12.6 of PBP. The inputs used in the calculation of the BAL are outlined in **Table 2** below. The relevant BAL is applicable to the proposed buildings on the site.

Table 2 – BAL Inputs	
Requirement	Input Used
Relevant FDI (table 2.1 of AS3959)	80
Classified vegetation	As per Section 3.2 of this report, Keith (2004) and Figure 2.3 of AS3959.
Separation Distance	As provided below.
Effective Slope	As per Table 1.

Using the inputs outlined above, the BAL has been calculated for each of the Plots identified in **Section 3.2**.

Table 3 – Bushfire Attack Levels				
Plot	Vegetation Class	Separation Distance (adopted 20m APZ)	Effective Slope	BAL
1	Managed vegetation	N/A	Upslope/flat	N/A
2	Managed vegetation	N/A	Upslope/flat	N/A
3	Managed vegetation	N/A	Upslope/flat	N/A
4	Managed vegetation	N/A	Upslope/flat	N/A
5	Managed vegetation	N/A	Upslope/flat	N/A
6	Forested wetlands	20m	>5-10 ⁰	BAL-19
7	Woodland	20m	>0-5 ⁰	BAL-19
Worst Case BAL				BAL-19

The worst case and therefore the applicable BAL for the proposed development is **BAL-19**. The relevant construction standards for BAL-19 are outlined in Sections 3 and 6 of AS3959.

The BAL does not apply to any class 10a storage sheds/structures.

4 BUSH FIRE PROTECTION MEASURES

4.1 Introduction

The proposed development, being a Special Fire Protection Purpose (SFPP), is required to comply with the Bush Fire Protection Measures (BFPM) outlined in Section 6.8 of PBP. This section of the report assesses the relevant BFPMs. There are eight key BFPMs outlined by PBP for SFPP development:

- Asset Protection Zones;
- Landscaping;
- Construction Standards;
- Access;
- Water Supply;
- Electrical Services;
- Gas Services; and
- Emergency management.

The relevant BFPMs are addressed throughout **Section 4** of this report.

4.2 Aims and Objectives of PBP

The aim of PBP is:

to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.

The specific objectives of PBP are to:

- *afford buildings and their occupants protection from exposure to a bush fire;*
- *provide for a defensible space to be located around buildings;*
- *provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;*
- *ensure that appropriate operational access and egress for emergency service personnel and occupants is available;*
- *provide for ongoing management and maintenance of BFPMs;*
- *and ensure that utility services are adequate to meet the needs of firefighters.*

The proposal has considered radiant heat levels of less than 29kW/m² to avoid flame contact, that would provide for appropriate separation to the hazards. The development in conjunction with the bush fire protection measures will provide for safe operational access and egress for emergency services personnel and patrons as well as sufficient water supply. Therefore, the proposed development is considered to be consistent with the objectives of PBP.

4.3 Objectives for SFPP Developments

Section 6.2 of PBP contains the specific objectives for special fire protection purposes:

- *Minimise levels of radiant heat, localised smoke and ember attack through increased APZ, building design and siting;*
- *Provide an appropriate operational environment for emergency service personnel during firefighting and emergency management;*
- *Ensure the capacity of existing infrastructure (such as roads and utilities) can accommodate the increase in demand during emergencies as a result of the development; and*
- *Ensure emergency evacuation procedures and management which provides for the special characteristics and needs of occupants.*

In being consistent with the BFPMs, the proposed development complies with objectives for SFPP developments, as outlined above.

4.4 Asset Protection Zones

The following table outlines the Performance Criteria and associated Acceptable Solutions for the APZ BFPM in accordance with Table 6.8a of PBP.

Table 4 Asset Protection Zones		
Performance Criteria	Acceptable Solution/Comment	Compliance
Radiant heat levels of greater than 10kW/m ² (calculated at 1200k) will not be experienced on any part of the building.	An Asset Protection Zone of 20m is applied to Plots 6 and 7 and shall be established in accordance with Table A1.12.1 Appendix 1 of PBP. Plots 1-5 are considered urban environments and therefore act as an existing APZ.	✓
APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	There are no lands within the proposed APZ with a slope exceeding 18 degrees.	✓
APZs are maintained to prevent the spread of fire to the building. The APZ is provided in perpetuity.	The APZ shall be managed in accordance with Appendix 4 of PBP and it within the boundaries of the site. Any other structures are to be located further than 6m from the building.	✓

4.5 Landscaping

The following table outlines the Performance Criteria and associated Acceptable Solutions for Landscaping in accordance with Table 6.8a of PBP.

Table 5 Landscaping		
Performance Criteria	Acceptable Solution/Comment	Compliance
Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	<p>The applied APZs shall be established and maintained in accordance with Appendix 4 and the applicable <i>Asset Protection Zone Standards</i>.</p> <p>There shall be no branches overhanging the roof and new plantings shall be established to ensure that there are no continuous tree canopies.</p> <p>Any proposed fencing shall be constructed in accordance with Section 7.6 of PBP.</p>	✓

4.6 Construction Standards

The following table outlines the Performance Criteria and associated Acceptable Solutions for Construction Standards in accordance with Table 6.8a of PBP.

Table 6 Construction Standards		
Performance Criteria	Acceptable Solution/Comment	Compliance
The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact.	As detailed in Section 3.6, the worst case and therefore the applicable BAL for the proposed development is BAL-19 .	✓

4.7 Access Standards

The following table outlines the Performance Criteria and associated Acceptable Solutions for Access in accordance with Table 6.8b of PBP.

Table 7 Access		
Performance Criteria	Acceptable Solution/Comment	Compliance
Firefighting vehicles are provided with safe, all-weather access to structures	<p>Access throughout the site shall be designed, constructed as follows:</p> <ul style="list-style-type: none"> Two wheel drive, all weather access roads and internal driveways; 	✓

and hazard vegetation.	<ul style="list-style-type: none"> Any traffic management devices shall not prohibit access for emergency service vehicles; Turning areas shall be established in accordance with Appendix 3 of PBP; All access roads and driveways are to be a minimum 4m width. 	
The capacity of access roads is adequate for firefighting vehicles.	The capacity of the proposed driveways will be sufficient to carry fully loaded firefighting vehicles up to 23 tonnes. No bridges or causeways are required.	✓
There is appropriate access to water supply.	Reticulated water is available to the development.	✓
Perimeter Road	Given the urban locality of the proposed development, it is considered that a perimeter road is not required in this instance. The proposed access point and onsite manoeuvrability shall provide for safe access for fire fighting vehicles and evacuation for residents and staff.	N/A

4.8 Water Supplies

The following table outlines the Performance Criteria and associated Acceptable Solutions for Water supply in accordance with Table 6.8c of PBP.

Table 8 Water Supply		
Performance Criteria	Acceptable Solution/Comment	Compliance
An adequate water supply is provided for firefighting purposes.	Reticulated water supply shall be provided with access points and fire hydrants located on the site.	✓
water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.	The water supply shall be easily accessible for fire fighting vehicles.	✓
Flows and pressure are appropriate.	Fire hydrants will be located, spaced, sized and pressured to comply with AS2419.1.	✓

The integrity of the water supply is maintained.	All above-ground water service pipes including taps etc shall be constructed of metal material.	✓
Water supplies are adequate in areas where reticulated water is not available.	N/A reticulated area.	N/A

4.9 Electricity and Gas Services

The following table outlines the Performance Criteria and associated Acceptable Solutions for the Electricity and Gas Services in accordance with Table 6.8c of PBP.

Table 9 Electricity and Gas Services		
Performance Criteria	Acceptable Solution/Comment	Compliance
Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	It is recommended that any new powerlines are to be constructed underground. Vegetation around existing/new transmission lines are to be maintained in accordance with the specifications in <i>ISSC3 Guideline for Managing Vegetation Near Powerlines</i> .	✓
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	The structures are to be connected to bottled gas (if required). The following recommendations are provided: <ul style="list-style-type: none"> • Installed and maintained in accordance with AS/NZS 1596:2004 with metal piping used; • All fixed cylinders are to be kept clear of flammable materials to a distance of 10m; • All connections to be metal construction; • Safety valves are to be directed away from the building and at least 2m away from any combustible material; • Polymer-sheathed flexible gas supply lines are to be used; • Aboveground gas service pipes external to the building are to be metal. 	✓

4.10 Emergency Management

The following table outlines the Performance Criteria and associated Acceptable Solutions for Construction Standards in accordance with Table 6.8d of PBP.

Table 10 Construction Standards		
Performance Criteria	Acceptable Solution/Comment	Compliance
A Bush Fire Emergency Management and Evacuation is prepared.	A Bush Fire Emergency Management and Evacuation Plan is to be prepared in accordance with RFS requirements, AS3745:2010 and AS4083:2010. The plan should include planning for the early relocation of occupants.	✓
Appropriate and adequate management arrangements are established for consultation and implementation of the Bush Fire Emergency Management and Evacuation Plan.	An Emergency Planning Committee is required to be established for the facility who will consultant with residents and staff in developing and implements an Emergency Procedures Manual. Details of all emergency assembly areas including on site and off-site arrangement shall bee established, and an annually emergency evacuation is to be conducted.	✓

5 RECOMMENDATIONS

The assessment of the proposed development carried out in this report has assumed the development will be carried out in accordance with a number of bush fire protection measures (BFPMs). The following provides a summary of the BFPMs that must be incorporated into the development to ensure it best protects the development from the effects of bushfire in accordance with the requirements of PBP and other best practice guidelines.

- Asset Projection Zone/Defendable Space:
 - The proposed structure to be located on the site shall be afforded with an Asset Protection Zone of 20m for Plots 6 and 7 only;
 - It is recommended that the entire site be managed as an Asset Protection Zone;
 - The APZ's are to be managed in accordance with Appendix 4 of PBP.
- Landscaping:
 - The applied Asset Protection Zones shall be established and maintained in accordance with Appendix 4 of PBP and the applicable *Asset Protection Zone Standards*;
 - There shall be no branches overhanging the roof of any proposed structures and new plantings shall be established to ensure that there are no continuous tree canopies.
- Construction Standards:
 - The proposed development is to be constructed to a BAL 19 standard and in accordance with PBP/AS 3959:2009. The BAL does not apply to class 10a storage structures.
- Access
 - Access to water tanks shall be kept clear at all times;
 - Any traffic management devices shall not prohibit access for emergency vehicles;
 - Turning areas as shall be established in accordance with Appendix 3 of PBP;
 - The access roads shall be constructed to be capable of carrying a fully loaded firefighting vehicle up to 23 tonnes;
 - All internal roads are to be at least 4m in width and no bridges or causeways are to be constructed, however if required, shall be constructed and maintained in accordance with PBP provisions.
 - No tree plantings or obstructions shall occur on either side of the access roads that would prohibit access to and from the site in the event of fire.
- Services
 - Water:

- Reticulated water supply shall be provided with access points and fire hydrants located on the site. The water supply shall be easily accessible for fire fighting vehicles;
- Hardened driveways are to be provided to the access points;
- Fire hydrants are to be located, spaced, sized and pressured to comply with AS2419.1;
- All aboveground water service pipes including taps etc shall be constructed of metal material.
- Electricity and Gas:
 - Vegetation around existing/new transmission lines are to be maintained in accordance with the specifications in *ISSC3 Guideline for Managing Vegetation Near Powerlines*;
 - Any proposed gas bottles shall be installed and maintained in accordance with AS/NZS 1596:2004 with metal piping used;
 - All fixed cylinders are to be kept clear of flammable materials to a distance of 10m (or appropriately shielded);
 - All connections are to be of metal construction.
- Bushfire Danger Period:
 - Before the commencement of the Bushfire Danger Period, a review of the vegetation on the site and applied BFPs is recommended to be undertaken. Fuel reduction measures are recommended throughout the site.
- Emergency Evacuation Plans:
 - Preparation of a Bush Fire Emergency Management and Evacuation Plan, in accordance with RFS requirements;
 - An Emergency Planning Committee is required to be established for the facility in accordance with PBP requirements;
 - A Fire Management Plan (FMP) should be prepared for the property that is reviewed and updated annually.

6 CONCLUSION

The proposed development, on completion, will ensure that the proposed development is located in an area that has a low to moderate bushfire hazard level. With the implementation of the recommendations, as outlined in **Section 6**, it is considered that the proposed development is appropriately protected from bushfire and complies with the requirements of PBP. The proposed development is not expected to increase the bushfire risk.

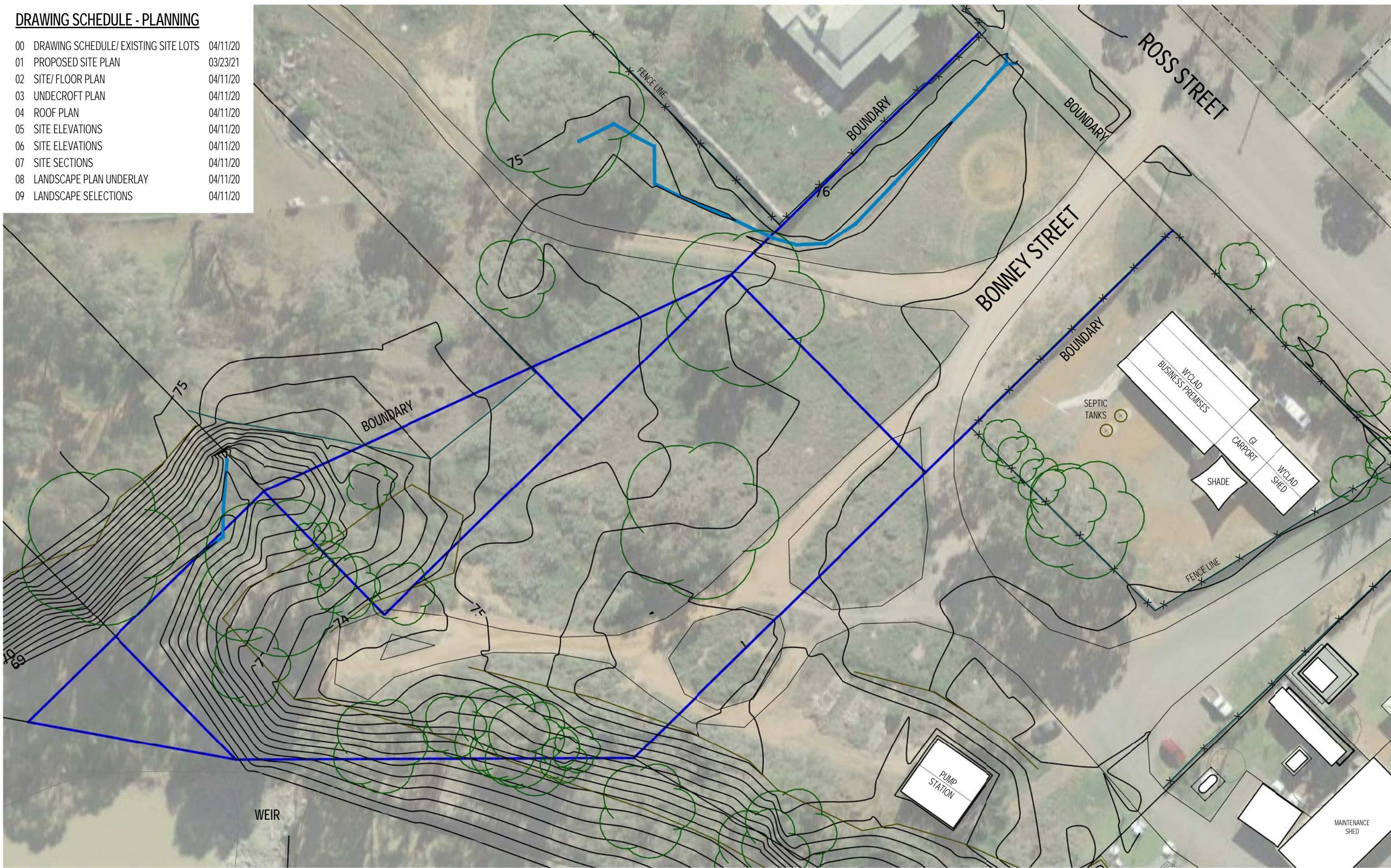
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- NSW Rural Fire Service. (2019). *Planning for Bush Fire Protection: A Guide for Council's, Planners, Fire Authorities and Developers*. Sydney: NSW RFS.

Appendix A - Development Plans

DRAWING SCHEDULE - PLANNING

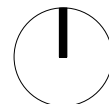
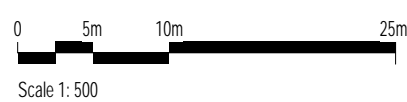
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01	PROPOSED SITE PLAN	03/23/21
02	SITE/ FLOOR PLAN	04/11/20
03	UNDECROFT PLAN	04/11/20
04	ROOF PLAN	04/11/20
05	SITE ELEVATIONS	04/11/20
06	SITE ELEVATIONS	04/11/20
07	SITE SECTIONS	04/11/20
08	LANDSCAPE PLAN UNDERLAY	04/11/20
09	LANDSCAPE SELECTIONS	04/11/20



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MAARI MA WILCANNIA CLINIC
 MAARI MA

DRAWING SCHEDULE/ EXISTING SITE LOTS

ISSUE	DATE	AMENDMENT

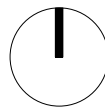
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Scale:	1 : 500 @ A3	Dwg No:	00
Issue Date:		Drawn:	ML
		Checked:	AOL



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MAARI MA WILCANNIA CLINIC
 MAARI MA

PROPOSED SITE PLAN

ISSUE	DATE	AMENDMENT

Job No:	480	Issue:	
Scale:	1 : 500 @ A3	Dwg No:	01
Issue Date:		Drawn:	
		Author:	
		Checked:	
		Checker:	

- 1. Treatment Room
- 2. Consult Room
- 3. Wet/ Dry Store
- 4. Backup Generator
- 5. Cleaner/ Store
- 6. Mental Health Room
- 7. Disabled Access Toilet
- 8. Airlock
- 9. Reception
- 10. Nursing Managers Office
- 11. Staff Open Plan Office
- 12. Staff Lockers
- 13. Healthy Start Waiting/ Play Room/ Deck
- 14. Keeping Well Waiting Room/ Deck
- 15. Server Room
- 16. Pram/ Gopher Park
- 17. Staff Toilets
- 18. Staff Room/ Deck
- 19. Elders Room
- 20. Meeting Room
- 21. BBQ
- 22. Kitchen/ Pantry
- 23. Plant
- 24. Bench
- 25. Sculpture Garden



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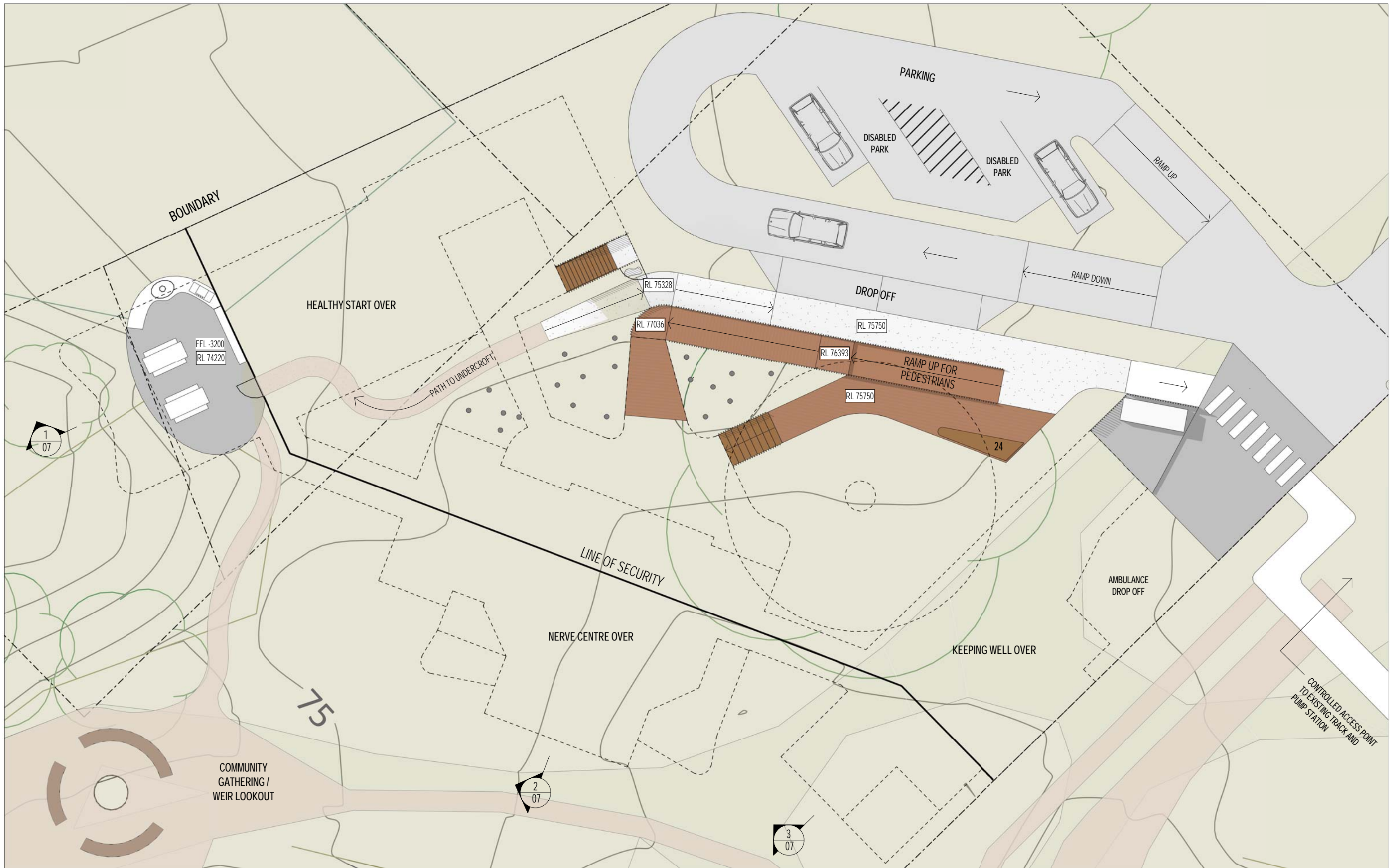
SETTING OUT OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR. VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS. WORK TO FIGURED DIMENSIONS AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE SUPERINTENDANT BEFORE PROCEEDING. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION.



MAARI MA WILCANNIA CLINIC
 MAARI MA

SITE/ FLOOR PLAN

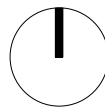
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Scale:	1 : 200 @ A3	Dwg No:	02
Issue Date:		Drawn:	ML
		Checked:	AOL
ISSUE	DATE	AMENDMENT	



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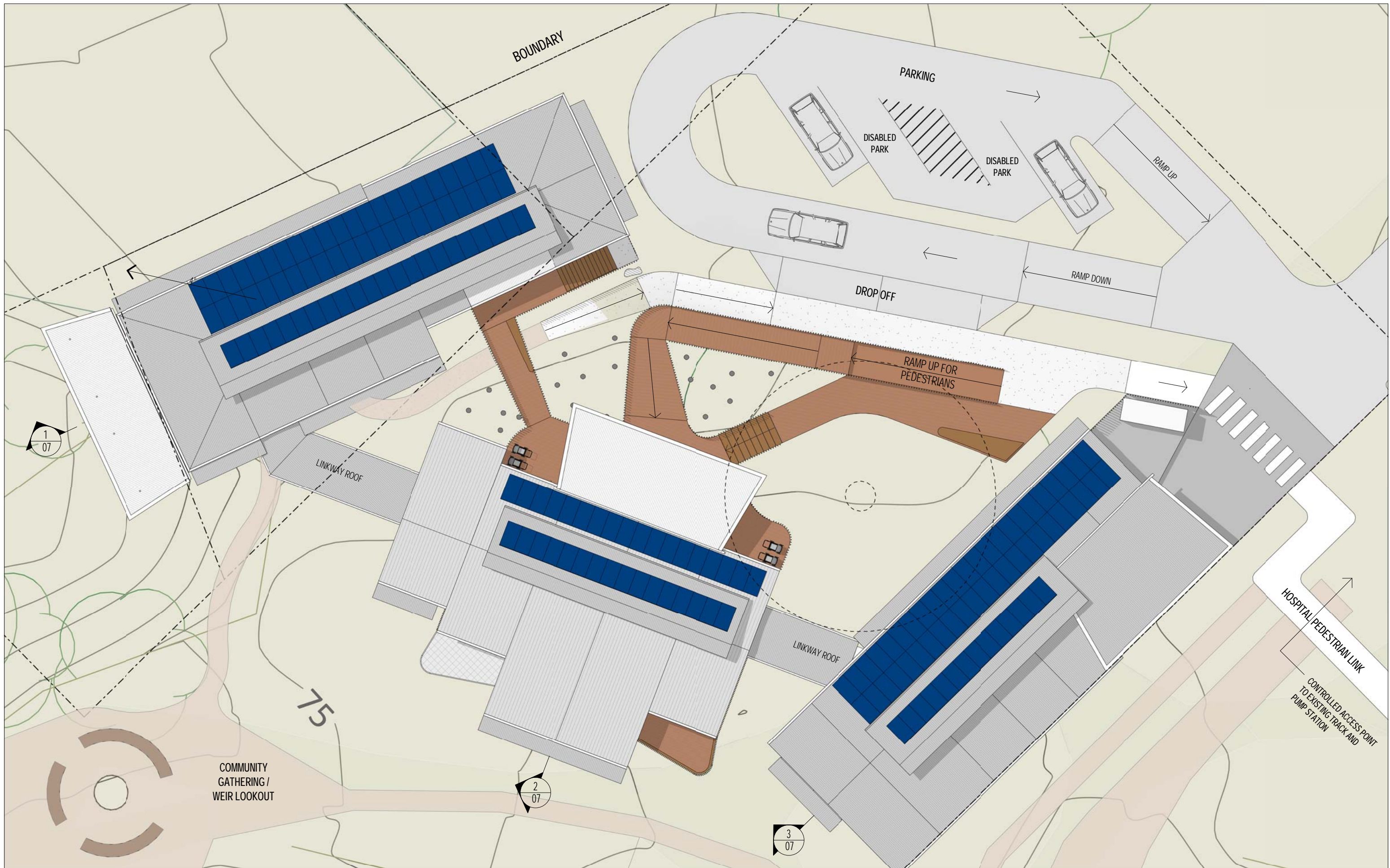


MAARI MA WILCANNIA CLINIC
 MAARI MA

UNDECROFT PLAN

ISSUE	DATE	AMENDMENT

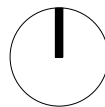
Job No:	480	Issue:	
Scale:	1 : 200 @ A3	Dwg No:	03
Issue Date:		Drawn:	Author
		Checked:	Checker



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MAARI MA WILCANNIA CLINIC
 MAARI MA

ROOF PLAN

ISSUE	DATE	AMENDMENT

Job No: 480
 Scale: 1 : 200 @ A3
 Issue Date:
 Drawn: ML Checked: AOL

Issue:
 Dwg No: **04**



NORTH ELEVATION



SOUTH ELEVATION

PRELIMINARY ISSUE

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MAARI MA WILCANNIA CLINIC
 MAARI MA

SITE ELEVATIONS

ISSUE	DATE	AMENDMENT

Job No:	480	Issue:	
Scale:	1 : 200	@ A3	
Issue Date:			
Drawn:	ML	Checked:	AOL

Dwg No:
05



EAST ELEVATION



WEST ELEVATION

PROPOSED BRIDGE AND
GATHERING CIRCLE

PRELIMINARY ISSUE

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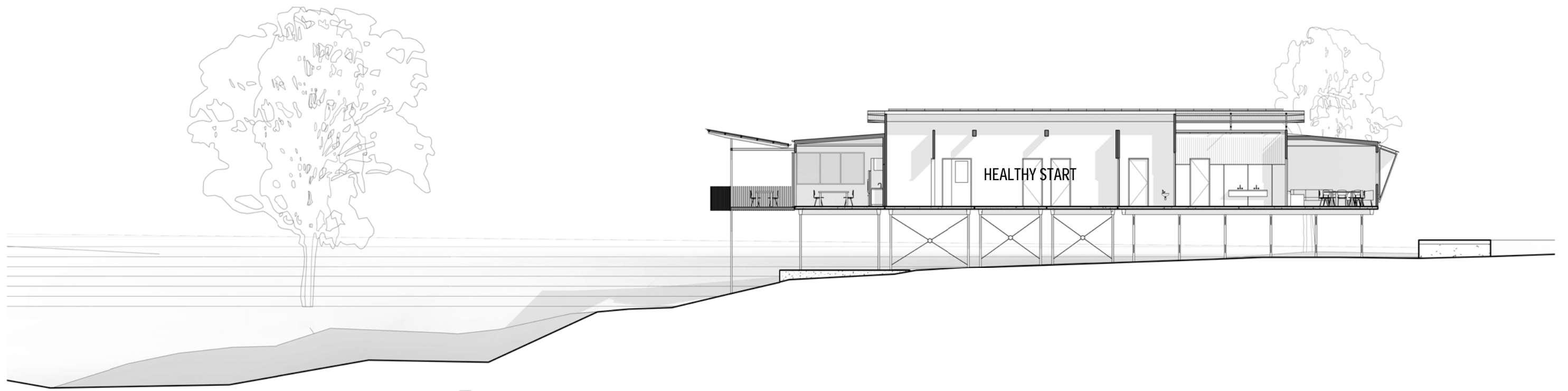
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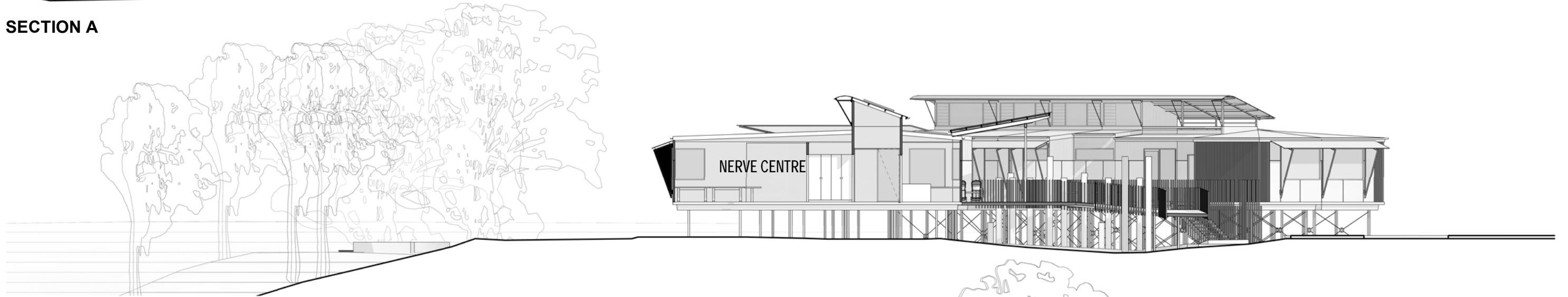
MAARI MA WILCANNIA CLINIC
MAARI MA

SITE ELEVATIONS

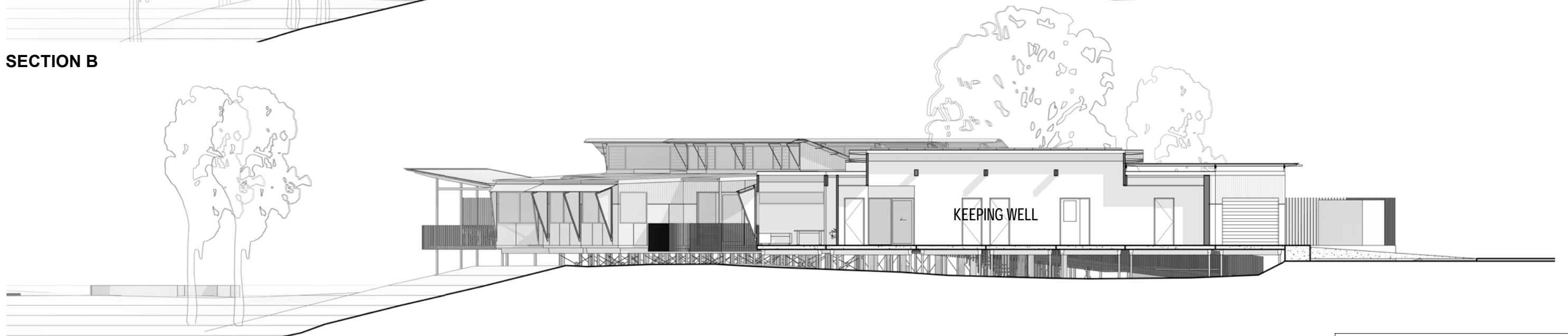
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			Scale: 1 : 200 @ A3	
			Issue Date:	Dwg No: 06
ISSUE	DATE	AMENDMENT	Drawn: ML	Checked: AOL



SECTION A



SECTION B



SECTION C

PLANNING ISSUE

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MAARI MA WILCANNIA CLINIC
 MAARI MA

SITE SECTIONS

ISSUE	DATE	AMENDMENT

Job No:	480	Issue:	
Scale:	1 : 200 @ A3	Dwg No:	07
Issue Date:		Drawn:	ML
		Checked:	AOL

- 1. Treatment Room
- 2. Consult Room
- 3. Wet/ Dry Store
- 4. Backup Generator
- 5. Cleaner/ Store
- 6. Mental Health Room
- 7. Disabled Access Toilet
- 8. Airlock
- 9. Reception
- 10. Nursing Managers Office
- 11. Staff Open Plan Office
- 12. Staff Lockers
- 13. Healthy Start Waiting/ Play Room/ Deck
- 14. Keeping Well Waiting Room/ Deck
- 15. Server Room
- 16. Pram/ Gopher Park
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- 23. Plant
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MAARI MA WILCANNIA CLINIC
 MAARI MA

LANDSCAPE PLAN UNDERLAY

Job No:	480	Issue:	
Scale:	1 : 200 @ A3	Dwg No:	08
Issue Date:		Drawn:	ML
		Checked:	CD
ISSUE	DATE	AMENDMENT	

Maari Ma Wellbeing Centre - Wilcannia

TREES



Acacia pendula
Weeping Myall, Boree, Nilyah, Balaar
H: 5-12m



Acacia stenophylla
Shoestring Acacia
H: 4-10m



Acacia victoriae
Gundablui



Angophera melanoxylon
Coolabah Apple
H: 15m



Eucalyptus camaldulensis
River Red Gum
H: 20-30m W: 10-15m



Atalaya hemiglauca
White wood



Santalum acuminatum
Sweet Quandong

SHRUBS



Atriplex nummelaria
Old Man Saltbush
H: 3m W: 2-4m



Dodonaea viscosa subsp. angustissima
Narrow Leaf Hopbush



Eremophila longifolia
Emu Bush



Rhagodia spinescens
Spiny Saltbush
H: 1-2m W: 1-2m



Westringia rigida
Stiff Westringia
H: 0.3-0.5m W: 0.8-1m



Prostanthera striatiflora
Native Thyme



Enchylaena tomentosa
Ruby Saltbush

GRASSES



Maireana brevifolia
Small Leaf Bluebush
H: 0.5-1m W: 0.5-1.5m



Lepidium africanum
Pepper Cress



Centipeda cunninghamii
Old Man Weed



Cymbopogon ambiguus
Native Lemongrass



Cyperus gymnocaulos
Spiny Flat Sedge

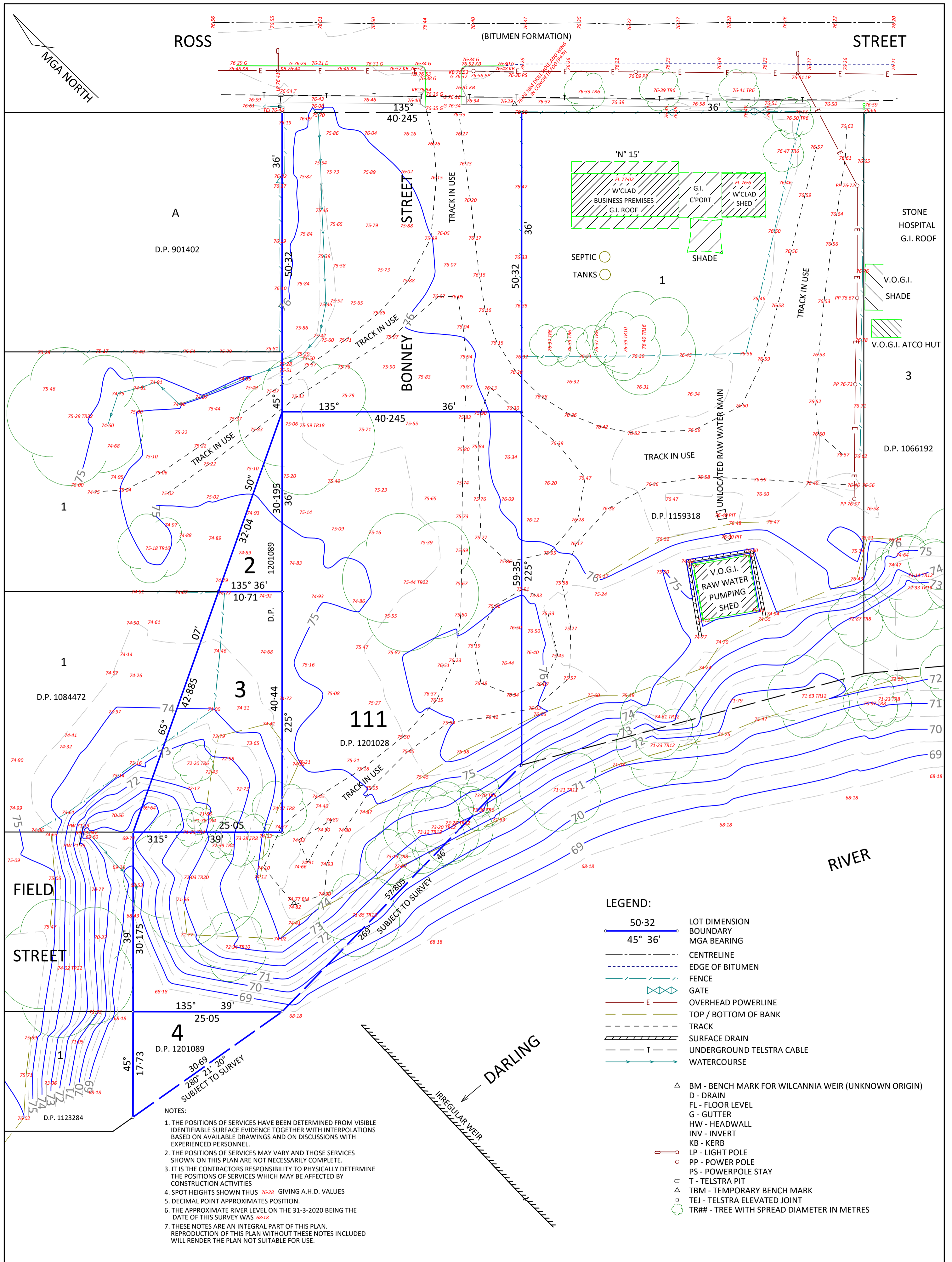


Lomandra densiflora
Pointed Mat-rush
H: 0.2-0.6m W: 0.8-1m



Enneapogon avenaceus
Bottle Washers

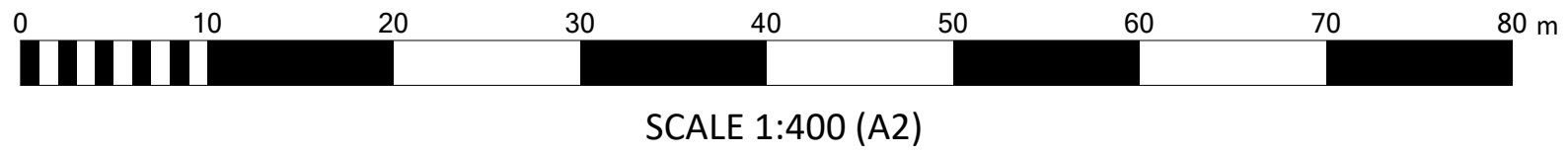
Appendix B - Detail Survey



NOTES:

1. THE POSITIONS OF SERVICES HAVE BEEN DETERMINED FROM VISIBLE IDENTIFIABLE SURFACE EVIDENCE TOGETHER WITH INTERPOLATIONS BASED ON AVAILABLE DRAWINGS AND ON DISCUSSIONS WITH EXPERIENCED PERSONNEL.
2. THE POSITIONS OF SERVICES MAY VARY AND THOSE SERVICES SHOWN ON THIS PLAN ARE NOT NECESSARILY COMPLETE.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO PHYSICALLY DETERMINE THE POSITIONS OF SERVICES WHICH MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES
4. SPOT HEIGHTS SHOWN THUS 76.28 GIVING A.H.D. VALUES
5. DECIMAL POINT APPROXIMATES POSITION.
6. THE APPROXIMATE RIVER LEVEL ON THE 31-3-2020 BEING THE DATE OF THIS SURVEY WAS 68.18
7. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN. REPRODUCTION OF THIS PLAN WITHOUT THESE NOTES INCLUDED WILL RENDER THE PLAN NOT SUITABLE FOR USE.

- LEGEND:**
- 50.32 LOT DIMENSION
 - 45° 36' BOUNDARY
 - MGA BEARING
 - CENTRELINE
 - - - - - EDGE OF BITUMEN
 - FENCE
 - GATE
 - OVERHEAD POWERLINE
 - TOP / BOTTOM OF BANK
 - TRACK
 - SURFACE DRAIN
 - UNDERGROUND TELSTRA CABLE
 - WATERCOURSE
- △ BM - BENCH MARK FOR WILCANNIA WEIR (UNKNOWN ORIGIN)
 - D - DRAIN
 - FL - FLOOR LEVEL
 - G - GUTTER
 - HW - HEADWALL
 - INV - INVERT
 - KB - KERB
 - LP - LIGHT POLE
 - PP - POWER POLE
 - PS - POWERPOLE STAY
 - T - TELSTRA PIT
 - TBM - TEMPORARY BENCH MARK
 - TEJ - TELSTRA ELEVATED JOINT
 - TR## - TREE WITH SPREAD DIAMETER IN METRES



DETAIL SURVEY AT BONNEY STREET, WILCANNIA FOR PROPOSED MEDICAL CLINIC

LENGTHS ARE IN METRES	GRAHAM F. HOWE REGISTERED SURVEYOR PH/FAX 08 8087 3660 515 WYMAN LANE, BROKEN HILL P.O. BOX 317 N.S.W. 2880	SIGNED:	
SCALE 1:400 (A2)		31-3-2020	T19-8D