Date: 04/02/2025

Our Ref: BR-634123-A

BUSHFIRE PLANNING & DESIGN

BUSH FIRE ASSESSMENT

346 Beragoo Road Grattai 2850

Assessed as: Infill Development

Prepared by: Matthew Noone | BPAD Accreditation Number: BPAD-25584

Site Address: 346 Beragoo Road Grattai 2850 | Lot / DP: (Lot 27/-/DP255363)

Project Description: Proposed Accommodation Building, Yoga Studio and Gym.

REPORT NUMBER
BR-634123-A

Date: 04/02/2025

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BUSHFIRE PLANNING & DESIGN

BAL ASSESSMENT CERTIFICATION

Provided to support the Development Application

346 Beragoo Road Grattai 2850

Prepared by: Matthew Noone | BPAD Accreditation Number: BPAD-PD 25584

Site Address: 346 Beragoo Road Grattai 2850 | Lot / DP: (Lot 27/-/DP255363)

Project Description: Proposed Accommodation Building, Yoga Studio and Gym

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I hereby certify that:

1	I (Matthew Noone) am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment holding accreditation with the Fire Protection Association (BPAD-PD 25584).	
2	Subject to the recommendations contained in the attached Bushfire Risk Assessment Report the proposed development conforms to the relevant specifications and requirements *.	
	*	The relevant specifications and requirements being; specifications and requirements of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other document as prescribed by s.4.14 of the Environmental Planning and Assessment Act 1979.
	*	No alternate solutions proposed.
3	I am aware that the Bushfire Assessment Report, prepared for the above mentioned site is to be submitted in support of a development application for this site and will be relied upon by Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with Planning for Bushfire Protection (2019).	

CERTIFICATE NUMBER BR-634123-A		BPAD Bushfire Planning & Design Accredited Practitioner Level 3	FPAA Accreditation Number BPAD-25584

DOCUMENT TRACKING

Issue Date	Issued to	Description	Version
04/02/2025	Sun Rai Designs	Issued for DA.	A

DISCLAIMER and TERMS OF USE

"*It should be borne in mind that the measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature of behaviour of fire, and extreme weather conditions*." (AS3959 2018).

Bushfire Planning & Design cannot be held liable for the loss of life or property caused by a bushfire event. This report has considered the relevant planning instruments, bushfire constructions codes and practices applicable at the time of writing. Should additional information be provided after this report has been issued, we reserve the right to review and if necessary modify our report. Bushfire Planning and Design has no control over workmanship, buildings degrade over time and vegetation if not managed will regrow. In addition legislation and construction standards are subject to change. Due to significant variance of bushfire behaviour, we do not guarantee that the dwelling will withstand the passage of bushfire even if this development is constructed to the prescribed standards.

This report has been based on our interpretation of Planning for Bushfire Protection (2019), AS3959 (2018) and the methodology for site specific bushfire assessment. As a consultant, our view can be subjective. Our opinions may differ from the opinions provided by you the Client (or Client Representative), the Council, the RFS or another bushfire consultant. The Rural Fire Service (RFS) has a higher authority and can upon their review, increase a nominated BAL-rating or entirely reject a development proposal. Any such recommendations made by the RFS take precedence. Our role is intermediary between our Client (or Client Representative) and the consenting authority. We apply our knowledge of the relevant bushfire protection standards to provide the best possible outcome for our Client (or Client Representative), both from a bushfire safety and financial perspective. Should the RFS modify our recommendations or reject the proposal to which this report relates to we will not be held liable for any financial losses as a result. By using this document, you the Client (or Client Representative) agree to and acknowledge the above statements

Bushfire Planning and Design accepts no liability or responsibility for any use or reliance upon this report and its supporting material by any unauthorized third party. The validity of this report is nullified if used for any other purpose than for which it was commissioned. Unauthorized use of this report in any form is deemed an infringement of our intellectual property. By using this document to support your development you the Client (or Client representative) agree to these terms.

TABLE OF CONTENTS

GLOSSARY

The abbreviations that are commonly used are explained below. Not all are present in this report.

APZ	Asset Protection Zone
AS3959	Australian Standard for the Construction of a Building in a Bushfire Prone Area
BAL	Bushfire Attack Level
BCA	Building Code of Australia
BFPL	Bush Fire Prone Land
BFPLM	Map Bush Fire Prone Land Map
BFDB	Bush Fire Design Brief
BPM	Bush Fire Protection Measure
DA	Development Application
DCP	Development Control Plan
DPIE	Department Of Planning, Industry And Environment
DTS	Deemed to Satisfy
EPA ACT	Environmental Planning And Assessment Act 1979
FDI	Fire Danger Index
FFDI	Forest Fire Danger Index
GFDI	Grassland Fire Danger Index
IPA	Inner Protection Area
LEP	Local Environmental Plan
NASH	National Association of Steel Framed Housing
NCC	National Construction Code
OPA	Outer Protection Area
PBP	Planning for Bush Fire Protection
RF ACT	Rural Fires Act
RF REG	Rural Fires Regulation
NSW RFS	New South Wales Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SFR	Short Fire Run
SSD	State Significant Development

PART A - BACKGROUND AND BRIEFING NOTES

ASSESSMENT DETAILS

Client		Sun Rai Designs	
Location		346 Beragoo Road Grattai 2850	
Title reference		(Lot 27/-/DP255363)	
LGA		Mid-Western Regional Council	
Zoning		R5 - Large Lot Residential	
Development Type		Proposed Accommodation Building, Yoga Studio and Gym.	
PBP (2019) Assessment Type		Infill (Chapter 7)	
Bushfire Consultancy		Bushfire Planning and Design - Director Matthew Noone - Accreditation number BPAD-25584 (Level 3)	
Report no.	Date of Issue	BR-634123-A	04/02/2025

SCOPE

The first intended audience for our report is our Client and the design team. The recommendations in this report should be adopted integral to design development and prior to the DA being lodged. Additionally our recommendations are be included in the DA consent and should be confirmed prior to the release of the Construction Certificate. Whereas our report will be used to support the development application to which this report relates, our report is not necessarily written for RFS or Council and the information within is to be considered in the same context as a set of specifications that if employed will achieve compliance with PBP.

Our report provides an assessment of the Bushfire Attack Level (BAL) and outlines the Bushfire Protection Measures (BPM's) that must be incorporated into the development design to ensure compliance with AS3959 (2009) Construction of Buildings in Bushfire Prone Areas and the New South Wales Rural Fire Service document Planning for Bushfire Protection (2019).

A.01 BUSHFIRE PRONE LAND

The subject site whether in whole or part is recorded as bushfire affected on a relevant map certified under Section 10.3 (2) of the Environmental Planning and Assessment Act 1979 (Refer figure A.01). All developments on certified bushfire prone are required to address bushfire and comply with PBP (2019).

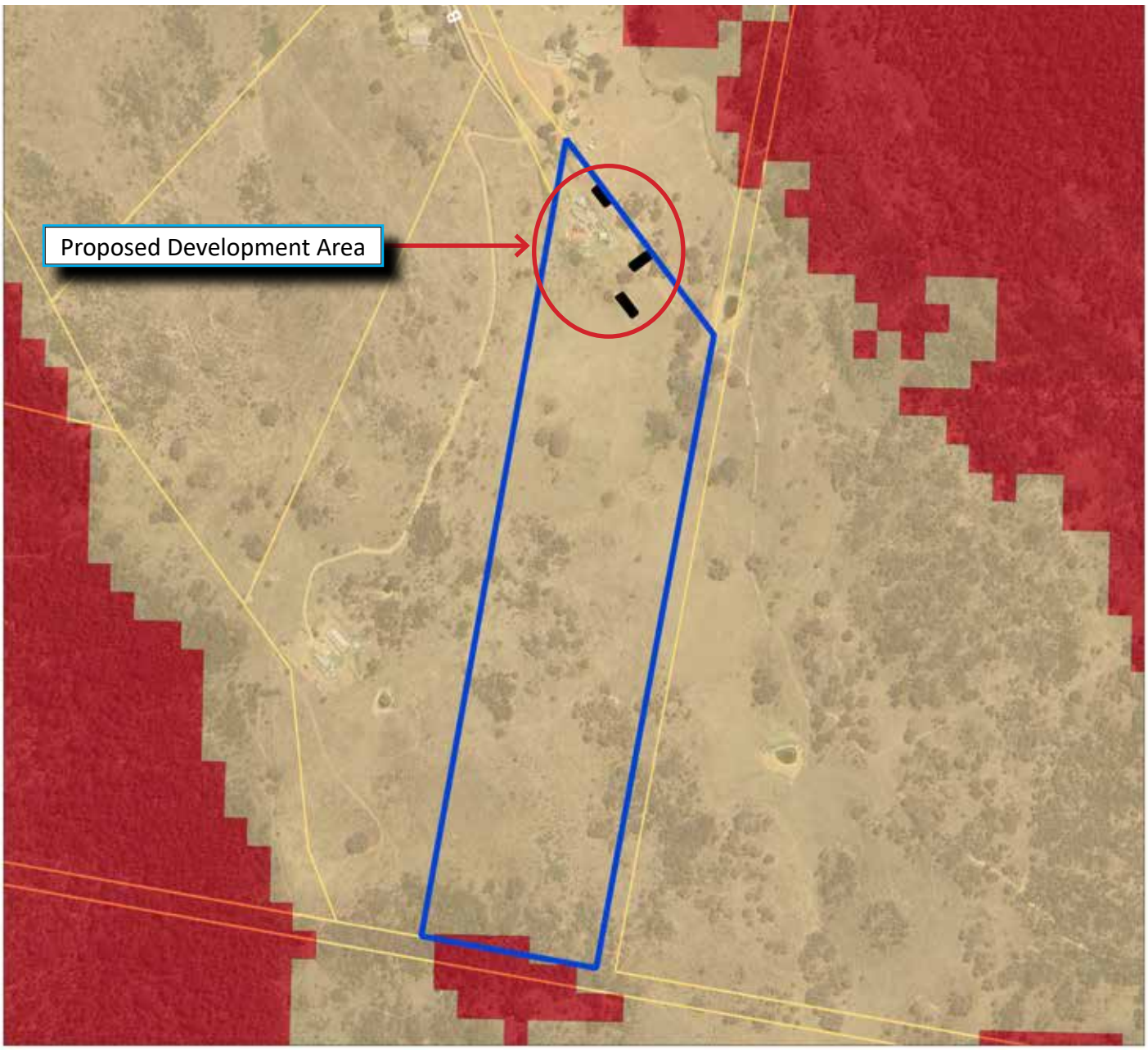

FIGURE A.01 BUSHFIRE PRONE LAND MAP

Plot date:18/06/2024

Project CRS: EPSG:28355

Buffer 0
Category 1
Category 2
Category 3
Subject Site
Proposed Buildings

0 80 160 240 320 m
Meters

A.01

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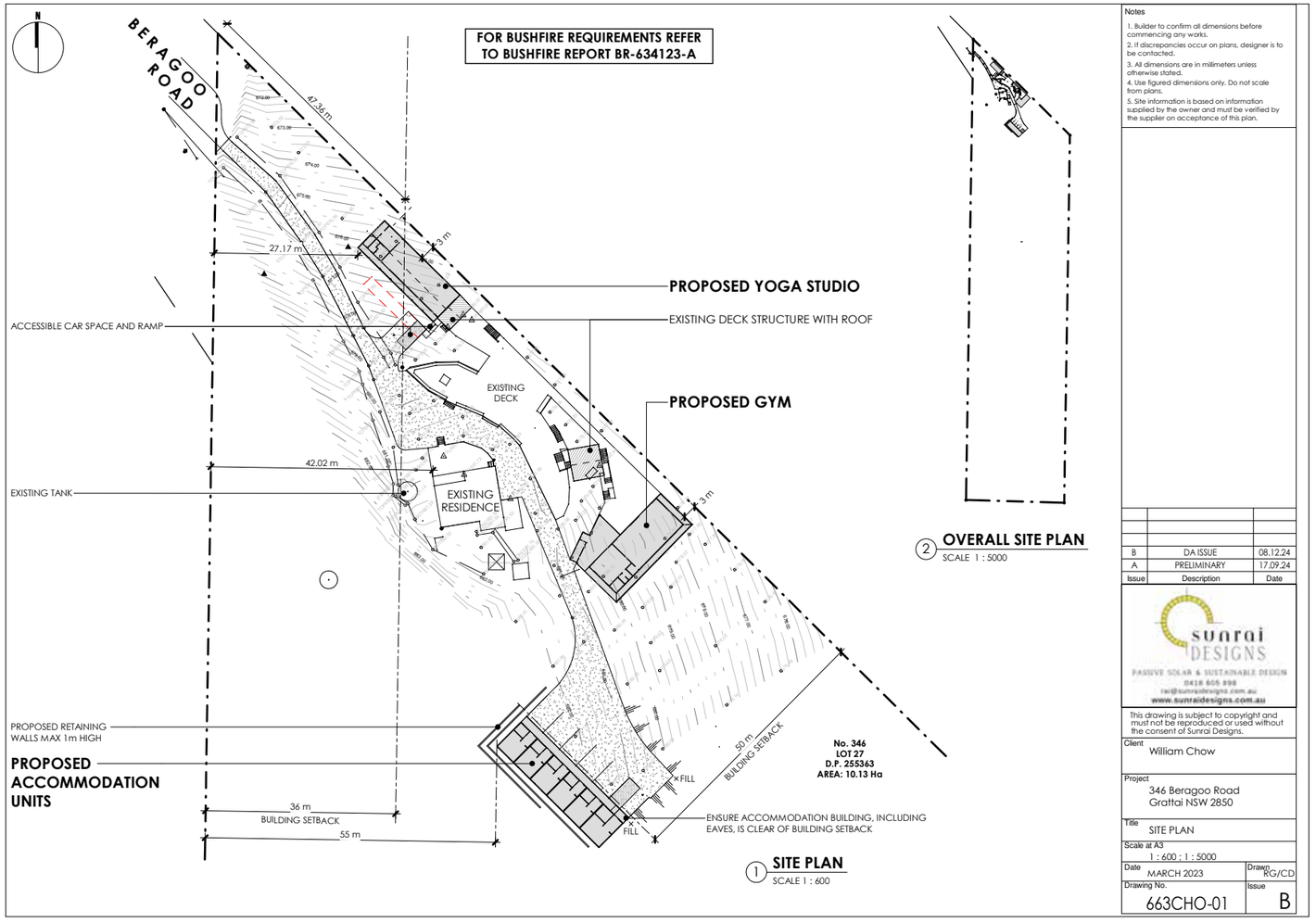
A.02 DEVELOPMENT PROPOSAL

The proposed development relates to the construction of an accommodation building (NCC Class 3), a gym room (NCC Class 6), and a yoga studio (NCC Class 6). There is an existing dwelling on the site. The proposed accommodation building will function as Short-Term Rental Accommodation (STRA) or as a holiday let. Although it is unclear if STRA is a permissible land use, from a bushfire protection perspective, the proposed development aligns with or is functionally the same as other temporary accommodation uses as described in PBP—such as holiday lets, bed-and-breakfast and farm stay accommodations—where occupants stay briefly and then vacate. These development types can have a maximum Bushfire Attack Level (BAL) rating of BAL-29. The proposed accommodation building has been designed to achieve a maximum predicted radiant heat load of 10 kW/m² such that it can meet the requirements of all tourist accommodation categories described in the Planning for Bushfire Protection (PBP).

Under the PBP (2022) addendum, “Holiday Lets” were redefined as Short-Term Rental Accommodation (STRA) as of 1 November 2021. STRA is now considered a use of a residential dwelling under the State Environmental Planning Policy (Housing) 2021, rather than a new development subject to section 100B of the Rural Fires Act 1997. The development will primarily serve as a Holiday Let (STRA). In accordance with PBP (2019), for STRA, BAL-29 setbacks and construction standards may be applied when the area is serviced by reticulated water and does not adjoin public reserves. The area is not serviced by reticulated water however sufficient water is provided for fire fighting in combination with compliance with all other bushfire protection measures (eg. Asset Protection Zones, Construction, Access,....etc).



Notes

1. Builder to confirm all dimensions before commencing any works.
2. If discrepancies occur on plans, designer is to be contacted.
3. All dimensions are in millimeters unless otherwise stated.
4. Use figured dimensions only. Do not scale from plans.
5. Site information is based on information supplied by the owner and must be verified by the supplier on acceptance of this plan.

Issue	Description	Date
B	DA ISSUE	08.12.24
A	PRELIMINARY	17.09.24

sunrai DESIGNS
PASSIVE SOLAR & SUSTAINABLE DESIGN
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www.sunraidesigns.com.au

Client: William Chow

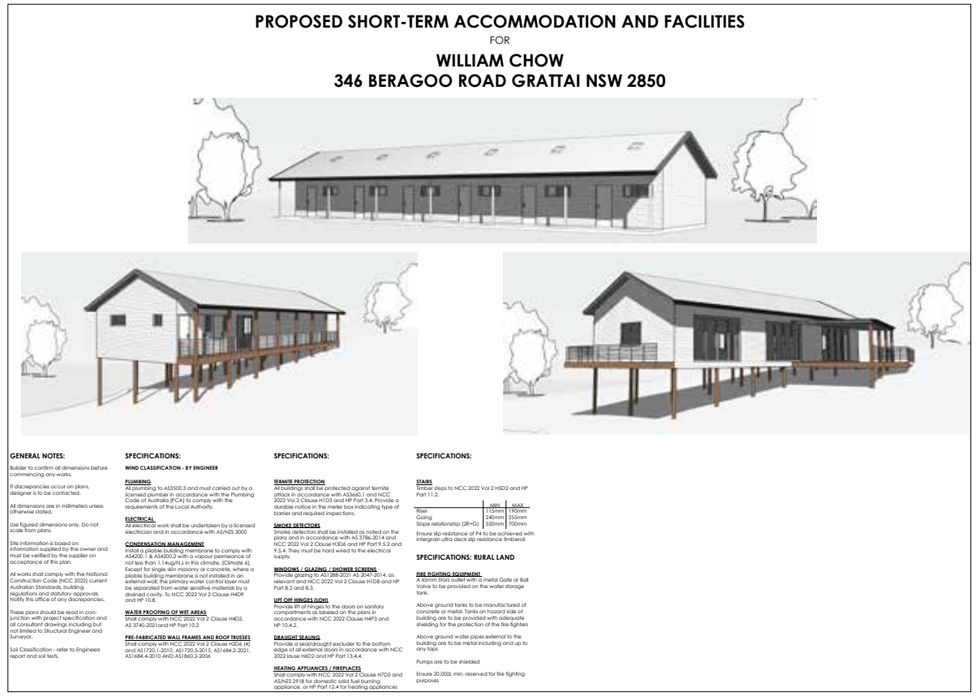
Project: 346 Beragoo Road Grattai NSW 2850

Title: SITE PLAN

Scale at A3: 1 : 600 ; 1 : 5000

Date: MARCH 2023 | Drawn: RG/CD

Drawing No.: 663CHO-01 | Issue: B



Concept Drawing

A.03 REGULATORY FRAME WORK

The Environmental Planning and Assessment Act 1979 (EP&A Act)	
4.14	**Consultation and development consent--certain bush fire prone land**

(1) Development consent cannot be granted for the carrying out of development for any purpose (other than a subdivision of land that could lawfully be used for residential or rural residential purposes or development for a special fire protection purpose) on bush fire prone land (being land for the time being recorded as bush fire prone land on a relevant map certified under section 10.3(2)) unless the consent authority--

(a)	is satisfied that the development conforms to the specifications and requirements of the version (as prescribed by the regulations) of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department (or, if another document is prescribed by the regulations for the purposes of this paragraph, that document) that are relevant to the development "the relevant specifications and requirements"), or
(b)	has been provided with a certificate by a person who is recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment stating that the development conforms to the relevant specifications and requirements.

(1A) If the consent authority is satisfied that the development does not conform to the relevant specifications and requirements, the consent authority may, despite subsection (1), grant consent to the carrying out of the development but only if it has consulted with the Commissioner of the NSW Rural Fire Service concerning measures to be taken with respect to the development to protect persons, property and the environment from danger that may arise from a bush fire.

(1B) This section does not apply to State significant development.

(1C) The regulations may exclude development from the application of this section subject to compliance with any requirements of the regulations. The regulations may (without limiting the requirements that may be made)--

(a)	require the issue of a certificate by the Commissioner of the NSW Rural Fire Service or other qualified person in relation to the bush fire risk of the land concerned, and
(b)	authorise the payment of a fee for the issue of any such certificate.

A.04 SITE LOCATION, DESCRIPTION AND POTENTIAL BUSHFIRE THREATS

The subject site is located in Grattai which is within the Mid-Western Regional Local Government Area (LGA). Access to the site is via Beragoo Road to the north west. An existing dwelling and ancillary buildings are located on the site. Grassy Woodland and Forest communities are located in the area however the dominant bushfire threat local to the proposed development area is Grassland.

FIGURE A.04 LOCATION DRAWING	Plot date:18/06/2024	Project CRS: EPSG:28355	A.04
Subject Site / Proposed Buildings	0 40 80 120 160 m Meters		
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A.05 LAND USE, ZONING AND PERMISSIBILITY

The subject site is zoned R5 Large Lot Residential.

LAND ZONING LEGEND

R5 Large Lot Residential

RU1 Primary Production

A.06 SIGNIFICANT ENVIRONMENTAL FEATURES

Our BAL-assessmen has considered the environmental features that are relevant to our assessment. There are no additional significant environmental features within the 140m study area that would influence our opinion of the assessed Bushfire Attack Level.

A.07 DETAILS OF ABORIGINAL HERITAGE

To our knowledge the site is not associated with any items of Aboriginal heritage.

A.08 THREATENED SPECIES, COMMUNITIES AND CRITICAL HABITATS

The subject site is not mapped by the Department of Planning, Industry and Environment (DPIE) under Part 7 of the Biodiversity Conservation Act 2016 (BC Act) as having Biodiversity Values (BV). There is no BV mapped land within the proposed development area. Refer to Figure A.09.

FIGURE A.09 BIODIVERSITY

Plot date:18/06/2024

CRS: EPSG:28355

BIODIVERSITY VALUES

Biodiversity Values

Biodiversity Values added in the last 90 days

Subject Site

Proposed Buildings

The BV Map has been prepared by the Department of Planning, Industry and Environment (DPIE) under Part 7 of the Biodiversity Conservation Act 2016 (BC Act).

0 150 m

Meters

A.09

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A.09 REPORT LIMITATIONS

This bushfire assessment is developed based on the current accepted standards. The severity of bushfire attack is reliant on many variables. Due to these variables the bushfire attack on any given day could be higher due to the limitations outline below. The bushfire protection measures contained in this document does not guarantee that loss of life, injury or property damage will not occur during a bush fire event.

Fire Danger Index

It may be possible that days of higher Fire Danger Index (FDI) may be experienced than the FDI levels used for assessment. This may result in fire situations where conditions challenge survivability of buildings and their occupants.

Fuel Load

The fuel loads and vegetation classes used in our assessment are based on the State Vegetation Mapping and Comprehensive Fuel Loads based on The University of Wollongong's (UoW) Fuels Modelling Project. Fuel loads in some areas may be higher than those used in this document. This can influence bush fire behaviour and the potential impact on property. The DTS APZs in PBP (2019) are based on the UoW fuel loads and are therefore suitable for design purposes.

Climate change

Climate change has led to longer, more intense fire seasons and an increase in the average number of elevated fire weather days, as measured by the Forest Fire Danger Index (FFDI). Last year saw the highest annual accumulated FFDI on record. Australia was the first country in the world to report the impact of climate change on bushfires through CSIRO's work to model the increase in high fire danger days.

Legislative Standards

Recommendations relating to development of bushfire prone land are a directive through the legislative standards applicable at the time of writing. Legislative standards change over time. All recommendations made are based on the current standards. We cannot guarantee that the current standards will be suitable in comparison to future standards.

Maintenance

After the issuance of an Occupancy Certificate (OC) it is imperative that the bushfire protection recommendations are carried out for the life of the development. Failure to maintain a property in accordance with the RFS standards for Asset Protection Zones could lead to the failure of the building, property and life. We have no control over the extent of how well a property will be maintained post OC.

PART B - BUSHFIRE ATTACK LEVEL (BAL) ASSESSMENT

B.01 INTRODUCTION

For the purpose of this bushfire assessment, the vegetation is required to be described to a distance of 140m from the boundary and the slope to 100m from boundary. Vegetation type and slope under vegetation are the factors that will significantly affect bushfire behaviour.

'Research has shown that 85% of houses are lost in the first 100m from bushland and that ember attack is a significant form of attack on properties' (RFS 2006).

B.02 SLOPE DETERMINATION

The effective slope has been assessed for a distance of at least 100m from the proposed development. The slope data has been calculated from a 1m LiDAR Digital Elevation Model (DEM). The source data sets have been captured to standards that are generally consistent with the Australian ICSM LiDAR Acquisition Specifications with require a fundamental vertical accuracy of at least 0.30m (95% confidence) and horizontal accuracy of at least 0.80m (95% confidence). The slope arrows indicated in figure A represent the slope calculated across the length of the arrow direct from the digital elevation model. The calculated slope as shown in Figure A has not been manipulated or modified in any way.

B.03 HOW THE VEGETATION COVER IS MEASURED

The author has visited the site to view the vegetation. The distance to vegetation is measured from the extent of vegetation cover interpolated from high resolution aerial imagery. For the areas beyond the line of sight we have defaulted to interpreting the extent of vegetation cover high resolution aerial image.

B.04 PREDOMINANT VEGETATION FORMATIONS

This assessment considers the vegetation within the site and if relevant, vegetation external to the site boundaries. Where mixes of vegetation formations are located together, the vegetation formation providing the greater hazard (highest radiant heat load) shall be used to determine the BAL and APZ. The combination of vegetation and slope that yields the worst case scenario shall be used (A1.2 PBP 2019). The vegetation mapping provides an overview of the types of vegetation proximal to the site. The vegetation mapping shown in Figure B.04 is not intended to be conclusive.

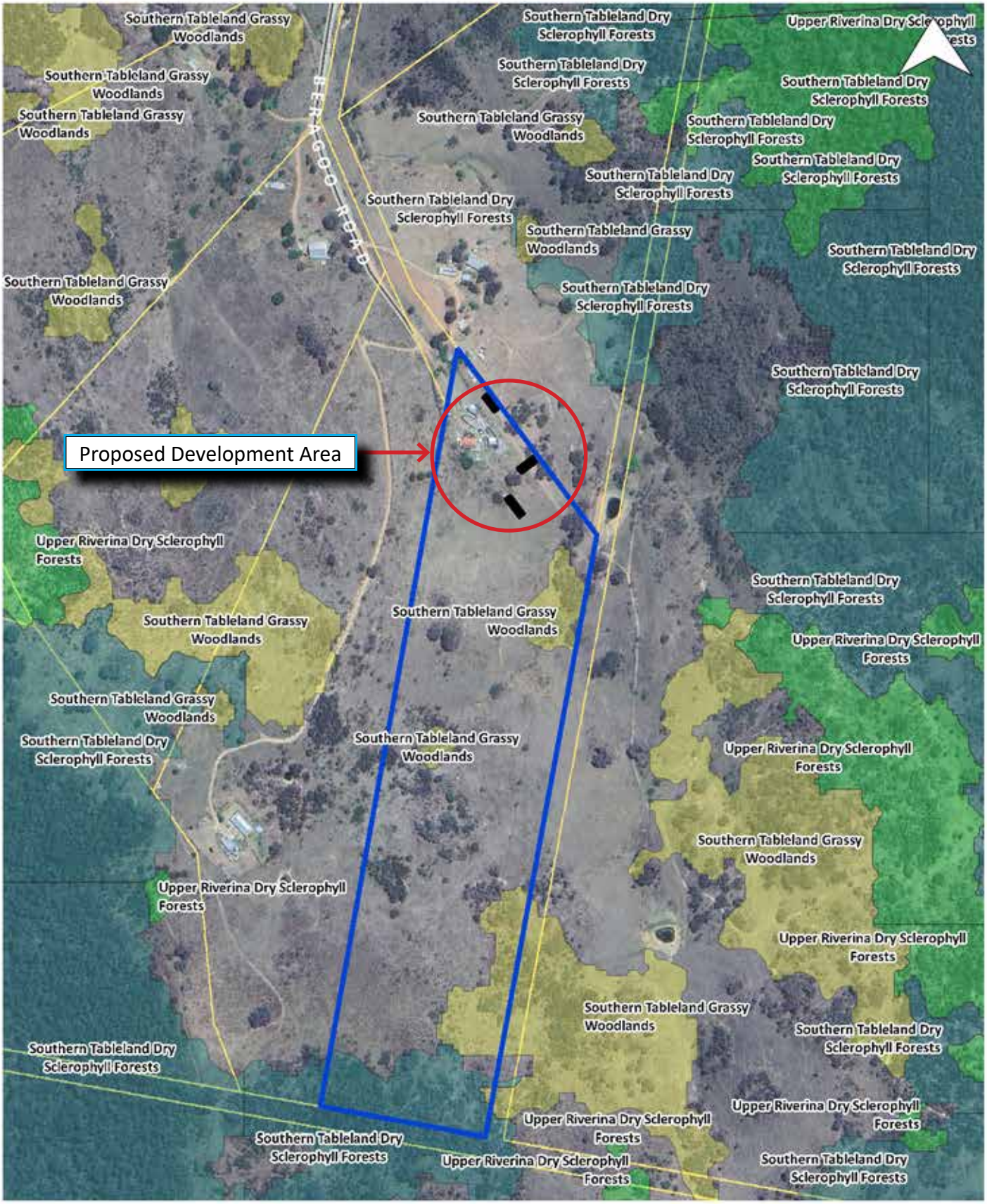

FIGURE B.04 VEGETATION CLASS

Subject Site

Dry Sclerophyll Forests (Shrub/grass sub-formation)

Dry Sclerophyll Forests (Shrubby sub-formation)

Grassy Woodlands

CRS: EPSG:28355

Plot date:18/06/2024

0 Meters 100 m

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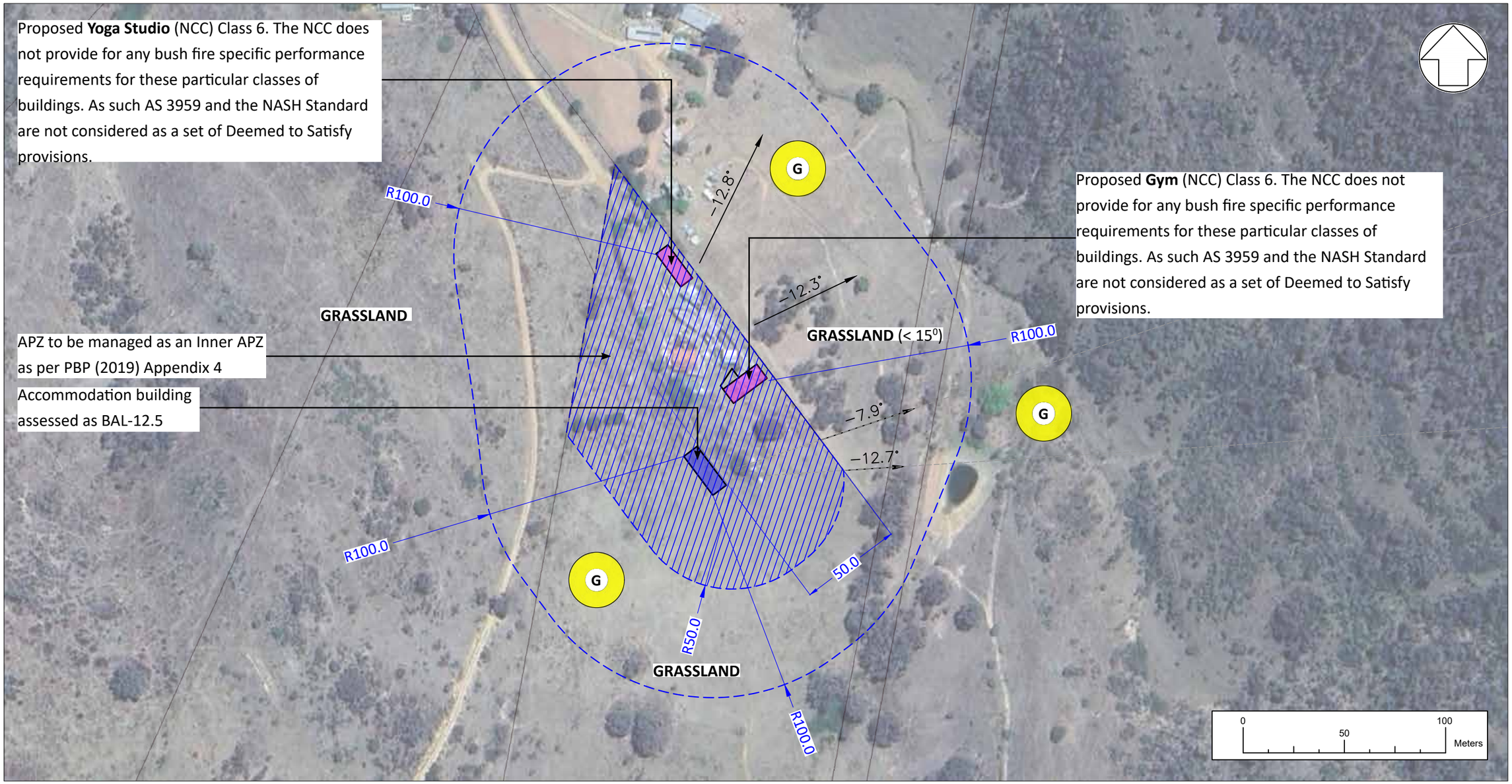
B.05 BUSHFIRE ATTACK LEVEL (BAL) ASSESSMENT.

The dominant bushfire threat is the Grassland to the north east of the boundary. Based on PBP (2019) Table A1.12.1 a 50m Asset Protection Zone is sufficient to achieve a maximum predicted radiant heat load of 10 kW/m^2 in the event of a bushfire. The accommodation building is assessed as BAL-12.5. Refer to Section C.03 for more detail.

TABLE 1 - PROPOSED ACCOMMODATION BUILDING (To be read in conjunction with Figure A).						
LGA = Mid-Western Regional Council				Forest Fire Danger Index = FDI 80		
ASPECT [1]	Vegetation Class [2]	Max Effective Slope [3]	Site slope [3]	Required APZ [4]	Proposed APZ / EML[5]	Predicted Radiant Heat
NE	Grassland	5-10^0 D-S	N/A	50m	> 50m	< 10 kW/m^2

Abbreviations		
AOD All other directions	EML Extent of managed land	NVC Narrow vegetation corridor

1	*Cardinal direction from each proposed building facade based on grid north.*
2	*Vegetation Classifications are as described in PBP (2019) A1.2.*
3	*Site slope is calculated from 1m LiDAR contours.*
4	*Minimum APZ required stated as Acceptable Solutions within Table 1.12.2 and A1.12.5. PBP (2019).*
5	*Actual dimensional setback from the face of the building to the assessed vegetation. Achieved Asset Protection Zone (APZ) or extent of managed land (EML).*
6	*Where the direct line of sight between the proposed building and assessed vegetation is obstructed (by a wall or building) the assessed rating can be lowered by one BAL-rating (PBP 2019, s. A1.8).*
7	*Remnant bushland and narrow vegetation corridors (NVC) as stated in PBP (2019) s.A1.11 can be assessed as rainforest as a simplified approach or be assessed as Short Fire Run using method 2 (AS3959).*
8	*Deeming provisions for grassland s.7.9 PBP (2019).*



VEGETATION KEY (solid)

G Grassland

DRAWING LEGEND

Site Boundary

Proposed Accommodation Building (NCC Class 3)

Proposed Studio and Gym (NCC Class 6)

Recommended Asset Protection Zone

Tank T

BUSHFIRE PLANNING & DESIGN

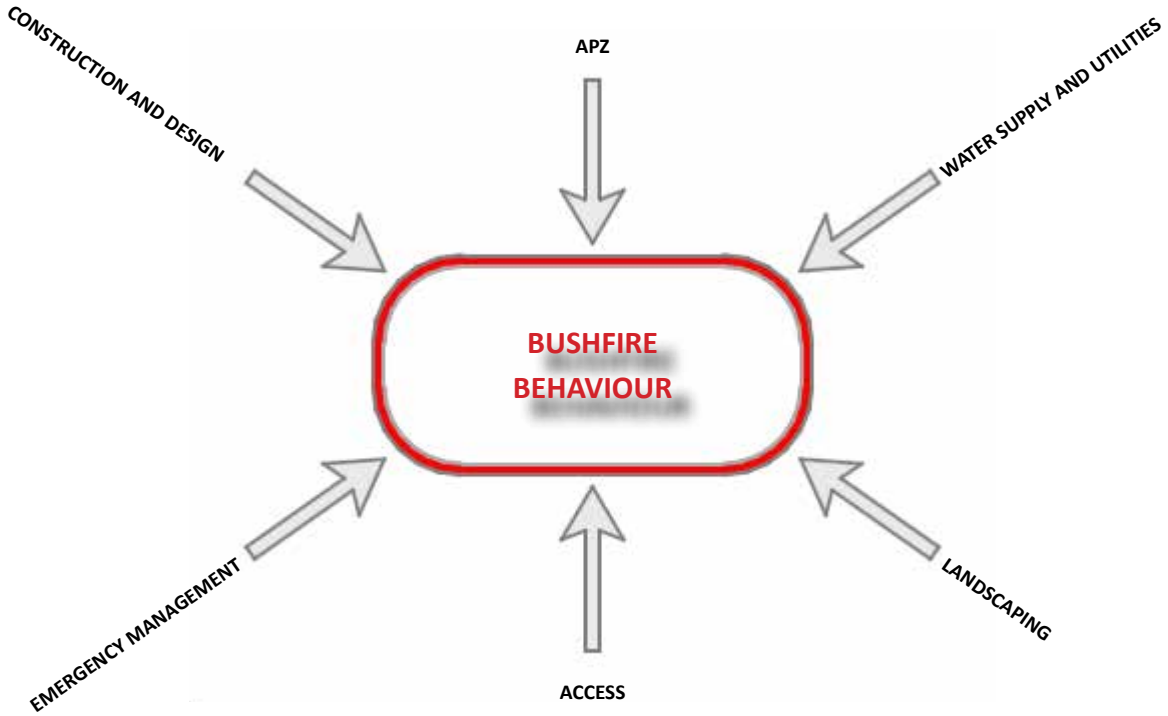
projects@bpad-nsw.com

0406077222

Figure: **A**

PART C BUSHFIRE PROTECTION MEASURES

BPMs can mitigate the impact of bush fire attack on people and assets. The types of protection measures include APZs, access, landscaping, water supply, building design and construction and emergency management arrangements. These measures assist building survival during a bush fire. They also contribute to the safety of firefighters and members of the community occupying buildings during the passage of a bush fire front. There are a range of different BPMs which should be applied in combination based upon the development type and the level of bush fire risk. All requirements for BPMs that relate to the development must be provided, as required by this document.



C.01 ASSET PROTECTION ZONES (APZs)

There is sufficient space within the site to provide an asset protection zone (APZ). The grassland APZ shown in Figure A is to be maintained in perpetuity. The APZ has been designed to provide a minimum 50m APZ around the proposed accommodation building. The APZ is large enough to ensure the accommodation building will not be exposed to radiant heat loads greater than 10 kW/m^2 in the event of a bushfire. Generally, the proposed APZ ensures defendable space is provided around all structures.

TREE CANOPY TREATMENT

- Inner APZ tree canopy cover should be less than 15% at maturity;
- Inner APZ trees at maturity should not touch or overhang the building;
- Inner APZ lower limbs should be removed up to a height of 2m above the ground;
- Outer APZ tree canopy cover should be less than 30% at maturity;
- tree canopies should be separated by 2 to 5m; and
- preference should be given to smooth barked and evergreen trees.

SHRUBS

- create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided;
- shrubs should not be located under trees;
- shrubs in the Inner APZ should not form more than 10% groundcover; and
- shrubs in the Outer APZ should not form more than 20% groundcover; and
- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.

GRASS

- grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
- leaves and vegetation debris should be removed.

C.02 ACCESS

In bushfire-prone areas, the road system serves several purposes. It provides firefighters with access to structures, allowing for more efficient use of resources. It also offers evacuation routes for both firefighters and the public. Additionally, it enables access to areas of bushfire hazard for firefighting and hazard mitigation purposes. Roads must have sufficient width and other dimensions to ensure safe, unobstructed access and to allow firefighting crews to operate equipment around their vehicles.

ACCESS - PUBLIC ROADS

The site is accessed via Beragoo Road from the north west. Beragoo Road is an un-sealed public road. The public road system is deemed to be adequate for emergency services appliances.

ACCESS - PROPERTY ACCESS

A new driveway will connect the proposed buildings to Beragoo Road to the north west. The proposed driveway is to enable RFS access to the tanks, i.e. the tanks should be within 4m of the driveway, and a suitable turning bay (PBP 2019, Appendix 3) is to be provided for RFS access. To comply with the RFS requirements, the following are to be specified:

	property access roads are two-wheel drive, all weather roads.
	the capacity of road surfaces and any bridges/ causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating.
	Provide *"suitable access for a Category 1 fire appliance to within 4m of the static water supply"*
	minimum 4m carriageway width;
	a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;
	property access must provide a suitable turning area in accordance with Appendix 3;
	curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;
	the minimum distance between inner and outer curves is 6m;
	the crossfall is not more than 10 degrees;
	maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads;

C.03 CONSTRUCTION

PERFORMANCE CRITERIA (PBP 2019)

The proposed accommodation building is assessed as having a Bushfire Attack Level of BAL-12.5. The proposed **accommodation building** is to be constructed to BAL-12.5 as indicated in Figure A and as specified in AS3959 (2018). This includes the general requirements of Section 3 of AS3959 (2018) and the additional construction requirements stipulated in s.7.5 of the New South Wales Rural Fire Service (RFS) document Planning for Bushfire Protection (PBP 2019).

Proposed **Yoga Studio and gym** are identified as being NCC Class 6. The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions. We recommend the yoga studio and gym be constructed from non combustible materials and provided with ember protection.

C.04 WATER, ELECTRICITY AND GAS

WATER PROVISIONS

The site will rely on tank water for fire fighting. To comply with PBP (2019) 10,000 litres is required for each occupied building. Although the accommodation building consists of six compartments, it is essentially a single building. For the **accommodation building** we recommend a minimum of 20,000 litres for fire fighting which is consistent with the requirements for a building in a rural area with a site size greater than 1 hectare. We recommend an additional 5,000 litre tank for the **Yoga Studio** and **Gym**. We recommend that a 5hp or 3kW petrol or diesel-powered pump be provided. Any hose and reel for fire-fighting connected to the pump shall be 19mm (internal diameter) and capable of reaching all parts of the building. Where applicable, the following requirements are to be adhered to;

- A connection for fire-fighting purposes is to be located within the IPA or non-hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet.
- Ball valves and pipes are to be adequate for water flow and are metal.
- Supply pipes from tank to ball valve are to have the same bore size to ensure flow volume.
- Underground tanks are to have an access hole of 200mm to allow tankers to refill direct from the tank.
- A hardened ground surface for truck access is to be provided within 4m.
- Above-ground tanks are to be manufactured from concrete or metal.
- Raised tanks are to have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F of AS 3959).
- Unobstructed access is to be provided at all times.
- Underground tanks are to be clearly marked.
- Tanks on the hazard side are to be provided with adequate shielding for the protection of firefighters.
- All exposed water pipes external to the building are to be metal, including any fittings.
- Where pumps are provided, they are to be a minimum 5hp or 3kW petrol or diesel-powered pump, and are to be shielded against bush fire attack. Any hose and reel for fire-fighting connected to the pump shall be 19mm internal diameter.
- Fire hose reels are to be constructed in accordance with AS/NZS 1221:1997 and installed in accordance with the relevant clauses of AS 2441:2005.

GAS PROVISIONS

Should the Applicant wish to install a gas supply to the dwelling or structure, the following criteria are to be complied with.

•	Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is to be used.
•	All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side.
•	Connections to and from gas cylinders are to be metal.
•	Polymer-sheathed flexible gas supply lines are not to be used.
•	Above-ground gas service pipes are to be metal, including and up to any outlets.

ELECTRICAL PROVISIONS

For infill development, the electrical frame work is an existing condition. Should there be a need to install new electrical connections the following should be considered;

•	Where practicable place electrical transmission lines are underground or,
•	If overhead electrical transmission lines are proposed:- lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas; and no part of a tree is closer to a power line than the distance set out in accordance with the specifications in 'Vegetation Safety Clearances' issued by Energy Australia (NS179, April 2002).
•	No part of a tree is to be closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.

C.05 EMERGENCY MANAGEMENT

It is recommended that a Bush Fire Emergency Management and Evacuation Plan is prepared consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan. This should be reviewed each year prior to bushfire season (October to March) and is to be made available to all visitors and guests such that informed decisions can be made during a bushfire event.

PART D SUMMARY

The proposed development relates to the construction of an accommodation building (NCC Class 3), a gym room (NCC Class 6), and a yoga studio (NCC Class 6). There is an existing dwelling on the site. The proposed accommodation building will function as Short-Term Rental Accommodation (STRA) or as a holiday let. Although it is unclear if STRA is a permissible land use, from a bushfire protection perspective, the proposed development aligns with or is functionally the same as other temporary accommodation uses as described in PBP—such as holiday lets, bed-and-breakfast and farm stay accommodations—where occupants stay briefly and then vacate. These development types can have a maximum Bushfire Attack Level (BAL) rating of BAL-29. The proposed accommodation building has been designed to achieve a maximum predicted radiant heat load of 10 kW/m² such that it can meet the requirements of all tourist accommodation categories described in the Planning for Bushfire Protection (PBP).

The development is captured under Section 4.14 of the Environmental Planning and Assessment Act 1979; Consultation and development consent – certain bush fire prone land. For the purpose of bushfire assessment the development is considered infill development as described in the New South Wales Rural Fire Service document Planning for Bushfire Protection (2019).

The subject site is located in Grattai which is within the Mid-Western Regional Local Government Area (LGA). Access to the site is via Beragoo Road to the north west. An existing dwelling and ancillary buildings are located on the site. Grassy Woodland and Forest communities are located in the area however the dominant bushfire threat local to the proposed development area is Grassland.

There is sufficient space within the site to provide an asset protection zone (APZ). The grassland APZ shown in Figure A is to be maintained in perpetuity. The APZ has been designed to provide a minimum 50m APZ around the proposed accommodation building. The APZ is large enough to ensure the accommodation building will not be exposed to radiant heat loads greater than 10 kW/m^2 in the event of a bushfire. Generally, the proposed APZ ensures defendable space is provided around all structures.

The proposed accommodation building is assessed as having a Bushfire Attack Level of BAL-12.5. The proposed **accommodation building** is to be constructed to BAL-12.5 as indicated in Figure A and as specified in AS3959 (2018). This includes the general requirements of Section 3 of AS3959 (2018) and the additional construction requirements stipulated in s.7.5 of the New South Wales Rural Fire Service (RFS) document Planning for Bushfire Protection (PBP 2019). The Proposed **Yoga Studio and gym** are identified as being NCC Class 6. The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions. We recommend these buildings be constructed from non combustible materials and provided with ember protection.

The site will rely on tank water for fire fighting. To comply with PBP (2019) 10,000 litres is required for each occupied building. Although the accommodation building consists of six compartments, it is essentially a single building. For the accommodation building we recommend a minimum of 20,000 litres for fire fighting which is consistent with the requirements for a building in a rural area with a site size greater than 1 hectare. We recommend an additional 5,000 litre tank for the Yoga Studio and Gym. We recommend that a 5hp or 3kW petrol or diesel-powered pump be provided. Any hose and reel for fire-fighting connected to the pump shall be 19mm (internal diameter) and capable of reaching all parts of the building.

A bushfire emergency management and evacuation plan consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan is to be prepared for the development. This is to be prepared prior to the release of the Occupancy Certificate.

Should you wish to discuss, please get in contact.

Report prepared by:	**Bushfire Planning and Design** Matthew Noone	
		BPAD Bushfire Planning & Design Accredited Practitioner Level 3

D.01 REFERENCES

AS3959 (2018)	Australian Standard, Construction of buildings in bushfire-prone areas, AS 3959, Third edition 2018 Standards Australia International Ltd, Sydney.
BCA (2019)	Building Code of Australia 2019, Building Code of Australia, Australian Building Codes Board, Canberra 2019.
EPA Act (1979)	Environmental Planning and Assessment Act 1979, NSW Government, NSW, legislation found at www.legislation.nsw.gov.au
Keith (2004)	Keith, D.A. (2004), Ocean shores to desert dunes: The Native Vegetation of New South Wales and the ACT. NSW Department of Environment and Conservation (2004).
PBP (2019)	Planning for Bushfire Protection, a Guide for Councils,Planners, Fire Authorities, Developers and Home Owners. Rural Fire Service 2019, Australian Government Publishing Service, Canberra.
RFS (2015)	Rural Fire Service, Guide For Bush Fire Prone Land Mapping, Version 5b.

D.02 APPENDICES

Appendix A - Architectural Drawings.

APPENDIX A -
ARCHITECTURAL DRAWINGS