

Date: 12/08/2024

Our Ref: BR-842624-A

BUSH FIRE ASSESSMENT

19 Shearman Street Caerleon 2850

Assessed as: Residential Subdivision

Prepared by: Matthew Noone | BPAD Accreditation Number: BPAD-25584 (Level 3)

Site Address: 19 Shearman Street Caerleon 2850 | Lot / DP: (Lot 920/-/DP1274170)

Project Description:

Residential Subdivision and Construction of Two Dwellings



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REPORT NUMBER
BR-842624-A

Date: 12/08/2024

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BAL ASSESSMENT CERTIFICATION

Provided to support the Development Application

19 Shearman Street Caerleon 2850

Prepared by: Matthew Noone | BPAD Accreditation Number: BPAD-25584 (Level 3)

Site Address: 19 Shearman Street Caerleon 2850 | Lot / DP: (Lot 920/-/DP1274170)



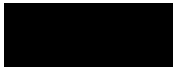
Project Description:

Residential Subdivision and Construction of Two Dwellings

PBP Development Type: Subdivision

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.
*	The development complies with the relevant specifications and requirements. RFS referral is required.
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-842624-A			FPAA Accreditation Number BPAD-25584 
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DOCUMENT TRACKING

Issue Date	Issued to	Description	Version
12/08/2024	Lynch Building Group	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.

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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

Prior to establishing the Bushfire Attack Level and compliance with Planning for Bushfire Protection and AS3959, it is necessary to discuss the following items.

A.01 BUSHFIRE PRONE LAND

A.02 DEVELOPMENT PROPOSAL

A.03 REGULATORY FRAME WORK

A.04 SITE LOCATION, DESCRIPTION AND POTENTIAL BUSHFIRE THREATS

A.05 LAND USE, ZONING AND PERMISSIBILITY

A.06 SIGNIFICANT ENVIRONMENTAL FEATURES

A.07 DETAILS OF ABORIGINAL HERITAGE

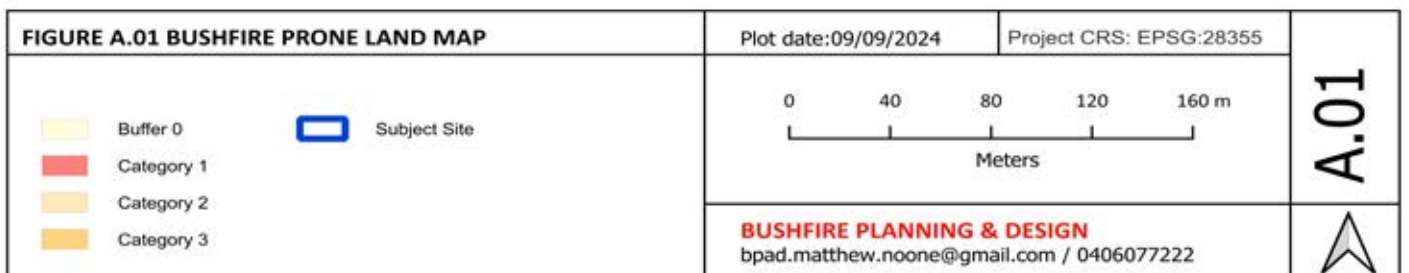
A.08 THREATENED SPECIES, COMMUNITIES AND CRITICAL HABITATS

A.09 BIODIVERSITY VALUES

A.10 REPORT LIMITATIONS

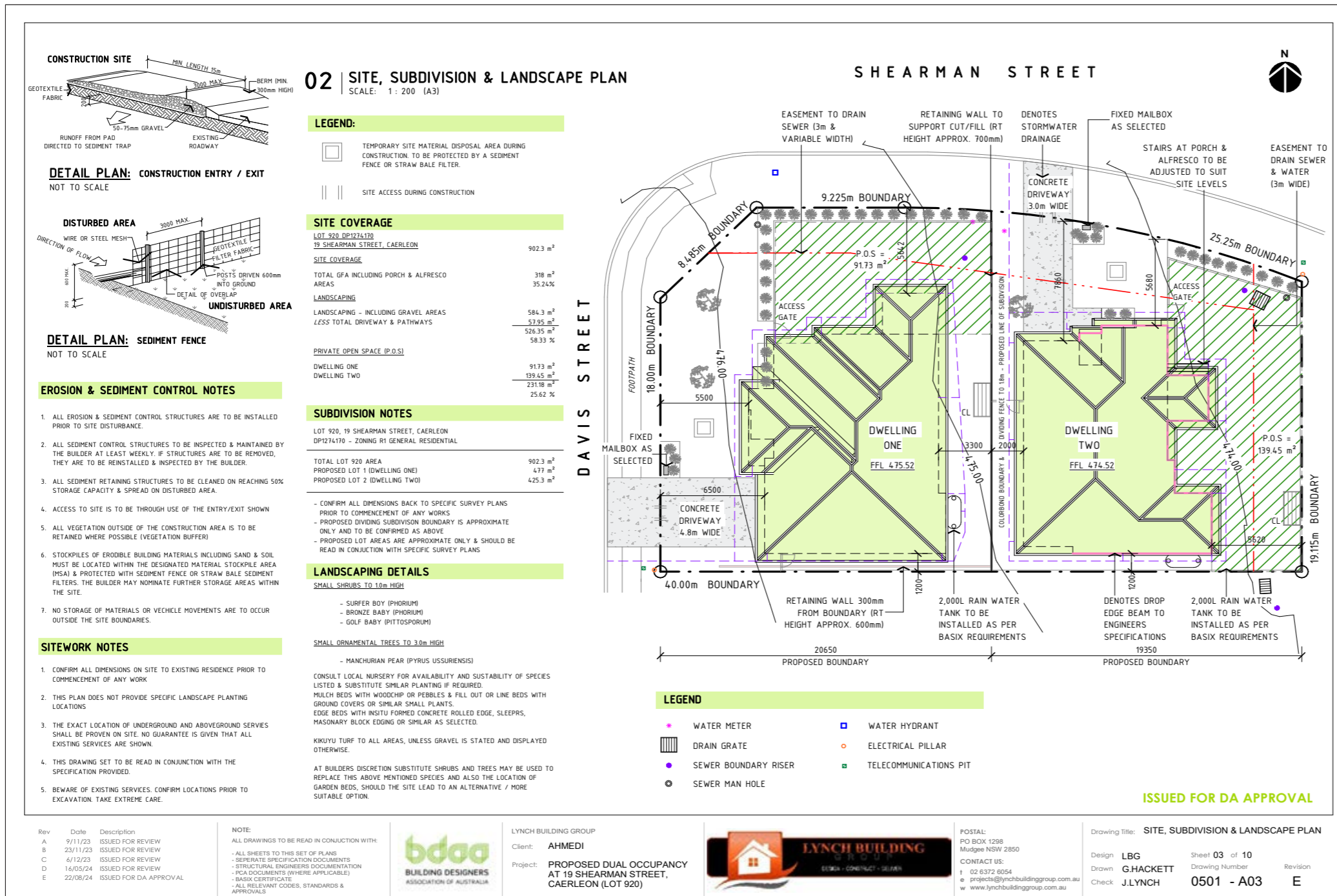
A.01 BUSHFIRE PRONE LAND

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 as per 4.14 Environmental Planning and Assessment Act 1979.



A.02 DEVELOPMENT PROPOSAL

The development relates to the subdivision of the site into two allotments. A dwelling will be constructed on each new allotment.



Concept Drawing

A.03 REGULATORY FRAME WORK

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. The development relates to the development of bushfire prone land and therefore must address the legislative requirements stipulated in Section 100B Rural Fires Act 1997.

100B Rural Fires Act 1997:

100B	Bush fire safety authorities.
(1)	The Commissioner may issue a bush fire safety authority for—
	(a) a subdivision of bush fire prone land that could lawfully be used for residential or rural residential purposes, or
	(b) development of bush fire prone land for a special fire protection purpose.
(2)	A bush fire safety authority authorises development for a purpose referred to in subsection (1) to the extent that it complies with standards regarding setbacks, provision of water supply and other matters considered by the Commissioner to be necessary to protect persons, property or the environment from danger that may arise from a bush fire.
(3)	A person must obtain such a bush fire safety authority before developing bush fire prone land for a purpose referred to in subsection (1).
(4)	Application for a bush fire safety authority is to be made to the Commissioner in accordance with the regulations.

Rural Fires Regulation 2022:

45	Application for bush fire safety authority —the Act, s 100B
(1)	For the purposes of the Act, section 100B(4), an application for a bush fire safety authority must be made in writing.
(2)	An application for a bush fire safety authority must include the following—.....”

NATIONAL CONSTRUCTION CODE (NCC)

FUNCTIONAL STATEMENTS	
F2.7.4	Bushfire prone areas
	A Class 1 building or a Class 10a building or deck associated with a Class 1 building constructed in a designated bushfire prone area is to provide resistance to bushfires in order to reduce the danger to life and reduce the risk of the loss of the building.

PERFORMANCE REQUIREMENT	
P2.7.5	Performance Requirement means a requirement which states the level of performance which a Performance Solution or Deemed-to-Satisfy Solution must meet.
	Where an alternate bushfire protection design is proposed as a Performance Solution to that described in Part 3.10.5, that proposal must comply with—
(a)	Performance Requirement P2.7.5; and
(b)	The relevant Performance Requirements determined in accordance with A2.2(3) and A2.4(3) as applicable.

CONSTRUCTION IN BUSHFIRE PRONE AREAS	
3.10.5.0	Performance Requirement P2.7.5 is satisfied, for—
(a)	a Class 1 building; or
(b)	a Class 10a building or deck associated with a Class 1 building, located in a designated bushfire prone area if it is constructed in accordance with—
(c)	AS 3959; or
(d)	NASH Standard – Steel Framed Construction in Bushfire Areas.

NATIONAL CONSTRUCTION CODE (NCC) CONTD...

STATE AND TERRITORY VARIATIONS

3.10.5.0 IS REPLACED WITH THE FOLLOWING CLAUSE IN NEW SOUTH WALES:

Performance Requirement P2.7.5 is satisfied, for—	
(a)	a Class 1 building; or
(b)	a Class 10a building or deck associated with a Class 1 building,

located in a designated bushfire prone area , if it is constructed in accordance with the following: AS 3959 except—

(1)	as amended by Planning for Bush Fire Protection; and
(2)	for Section 9 for Bushfire Attack Level FZ (BAL-FZ).

NASH Standard – Steel Framed Construction in Bushfire Areas except—



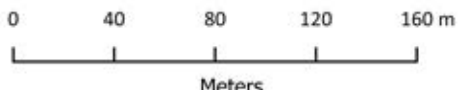
(1)	as amended by Planning for Bush Fire Protection; and
(2)	for Section 9 for Bushfire Attack Level FZ (BAL-FZ).

the requirements of (c), or (d) above as modified by the development consent following consultation with the NSW Rural Fire Service under section 4.14 of the Environmental Planning and Assessment Act 1979 if required; or the requirements of (c), or (d) above as modified by development consent with a bushfire safety authority issued under section 100B of the Rural Fires Act 1997 for the purposes of integrated development.

A.04 SITE LOCATION, DESCRIPTION AND POTENTIAL BUSHFIRE THREATS

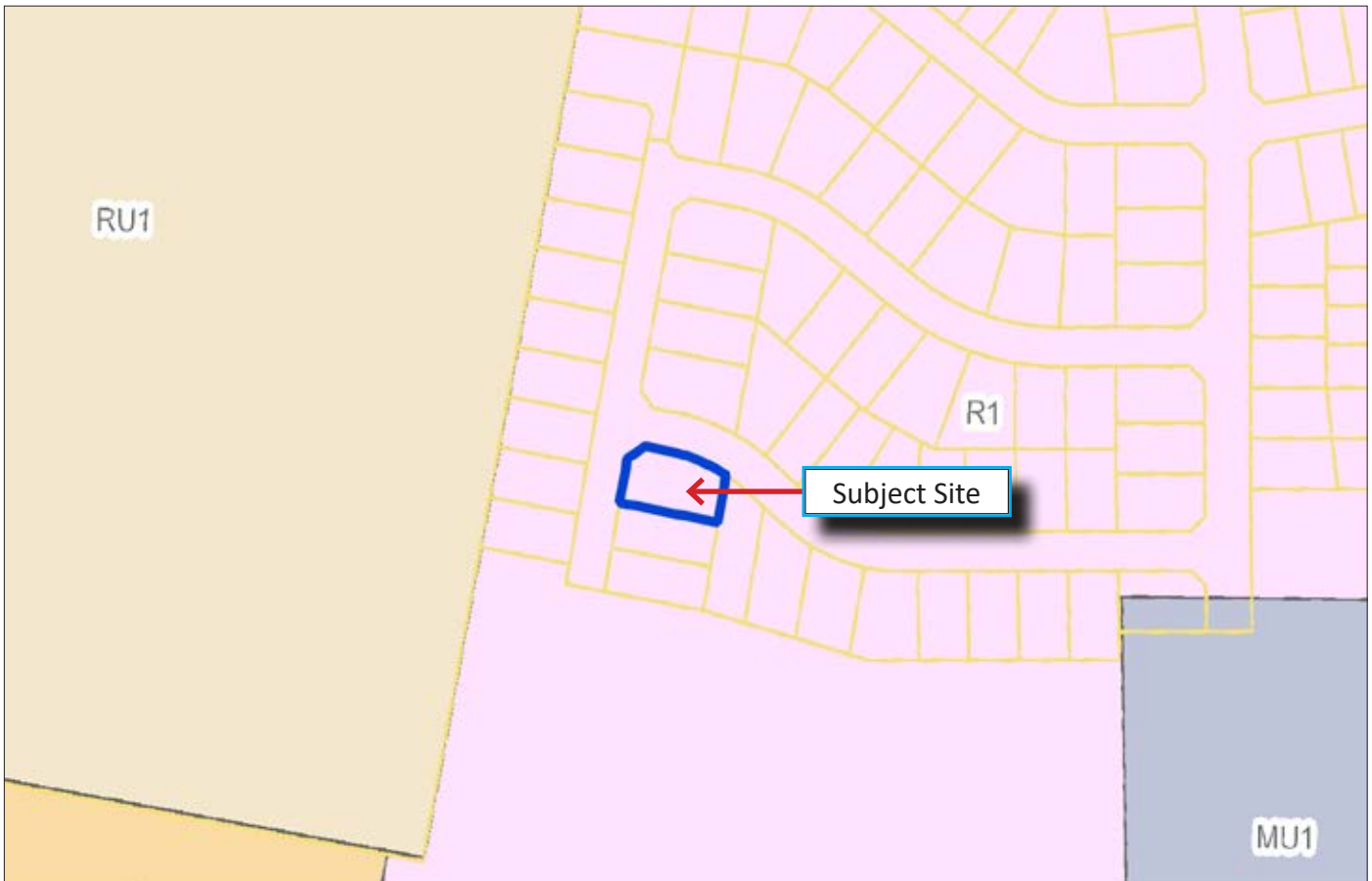
The subject site is located in Caerleon which is within the Mid-Western Regional Local Government Area (LGA). The site is located in a recent subdivision and will be surrounded by managed residential curtilage in the near future. Access to the site is via Davis Crescent to the west and Shearman Street to the north. A combination of Grassland and Woodland is located to the west of the subdivision.



FIGURE A.04 LOCATION DRAWING  Subject Site	Plot date: 09/09/2024	Project CRS: EPSG:28355	A.04 
	 Meters		
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A.05 LAND USE, ZONING AND PERMISSIBILITY

The subject site is zoned R1 General Residential.



LAND ZONING LEGEND

 B1 Neighbourhood Centre	 IN1 General Industrial	 RU1 Primary Production
 B2 Local Centre	 IN2 Light Industrial	 RU2 Rural Landscape
 B3 Commercial Core	 IN3 Heavy Industrial	 RU3 Forestry
 B4 Mixed Use	 IN4 Working Waterfront	 RU4 Primary Production Small Lots
 B5 Business Development	 R1 General Residential	 RU5 Village
 B6 Enterprise Corridor	 R2 Low Density Residential	 RU6 Transition
 B7 Business Park	 R3 Medium Density Residential	 SP1 Special Activities
 B8 Metropolitan Centre	 R4 High Density Residential	 SP2 Infrastructure
 C1 National Parks & Nature Reserves	 R5 Large Lot Residential	 SP3 Tourist
 C2 Environmental Conservation	 RE1 Public Recreation	 UR Urban
 C3 Environmental Management	 RE2 Private Recreation	 DM Deferred Matter
 C4 Environmental Living	 RO Regional Open Space	
 CA Complex Area	 RP Regional Park	

A.06 SIGNIFICANT ENVIRONMENTAL FEATURES

There are no significant environmental features within the subject site.

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.

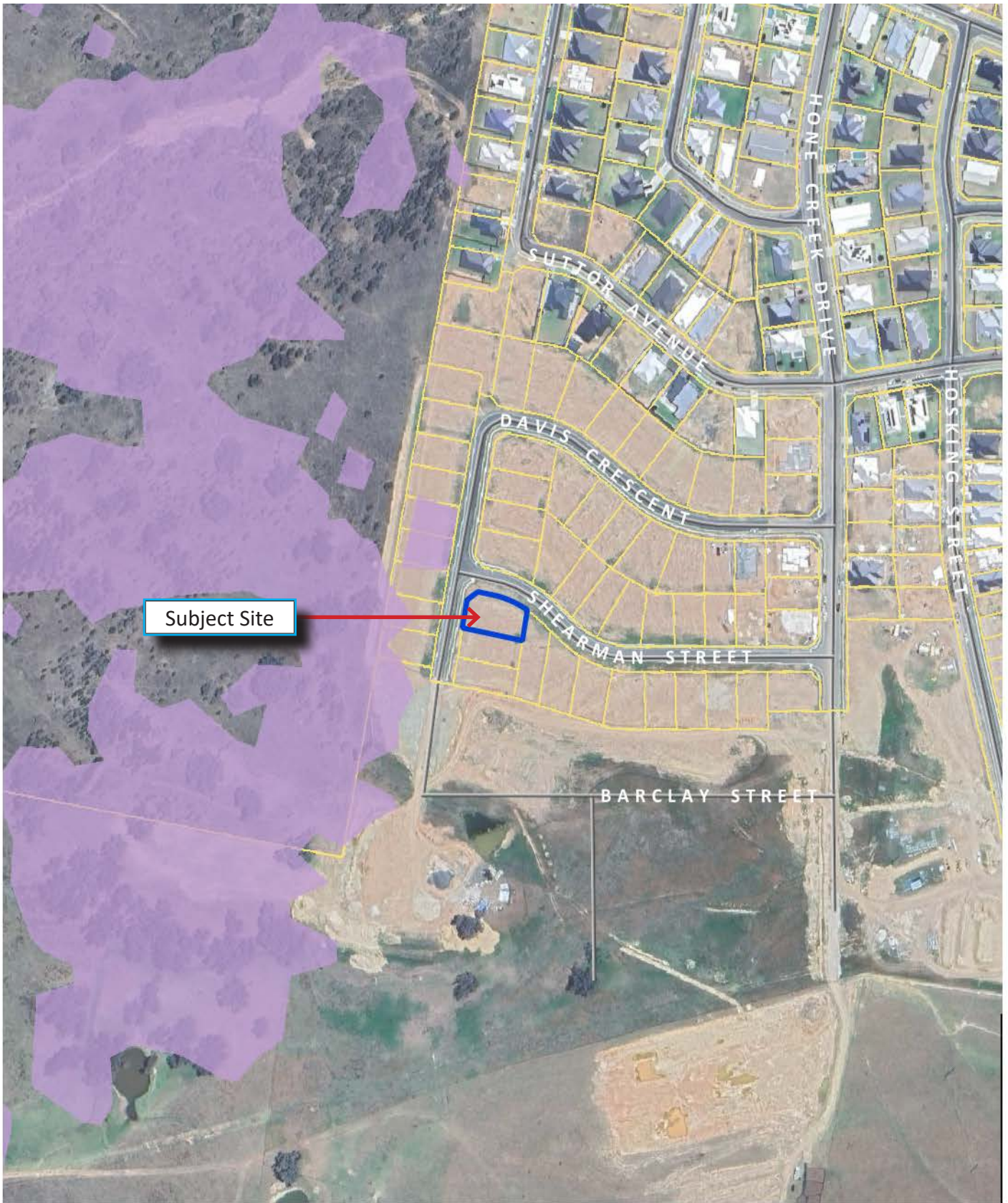


FIGURE A.09 BIODIVERSITY	Plot date:09/09/2024	CRS: EPSG:28355	A.09
<p>BIODIVERSITY VALUES</p> <ul style="list-style-type: none"> Biodiversity Values Biodiversity Values added in the last 90 days <p>The BV Map has been prepared by the Department of Planning, Industry and Environment (DPIE) under Part 7 of the Biodiversity Conservation Act 2016 (BC Act).</p>	<div style="display: flex; justify-content: space-between; width: 100%;"> 0 150 m </div> <hr style="width: 100%; border: 0.5px solid black;"/> <p style="text-align: center;">Meters</p>		
<p>BUSHFIRE PLANNING & DESIGN bpad.matthew.noone@gmail.com / 0406077222</p>			

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.

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 which 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.

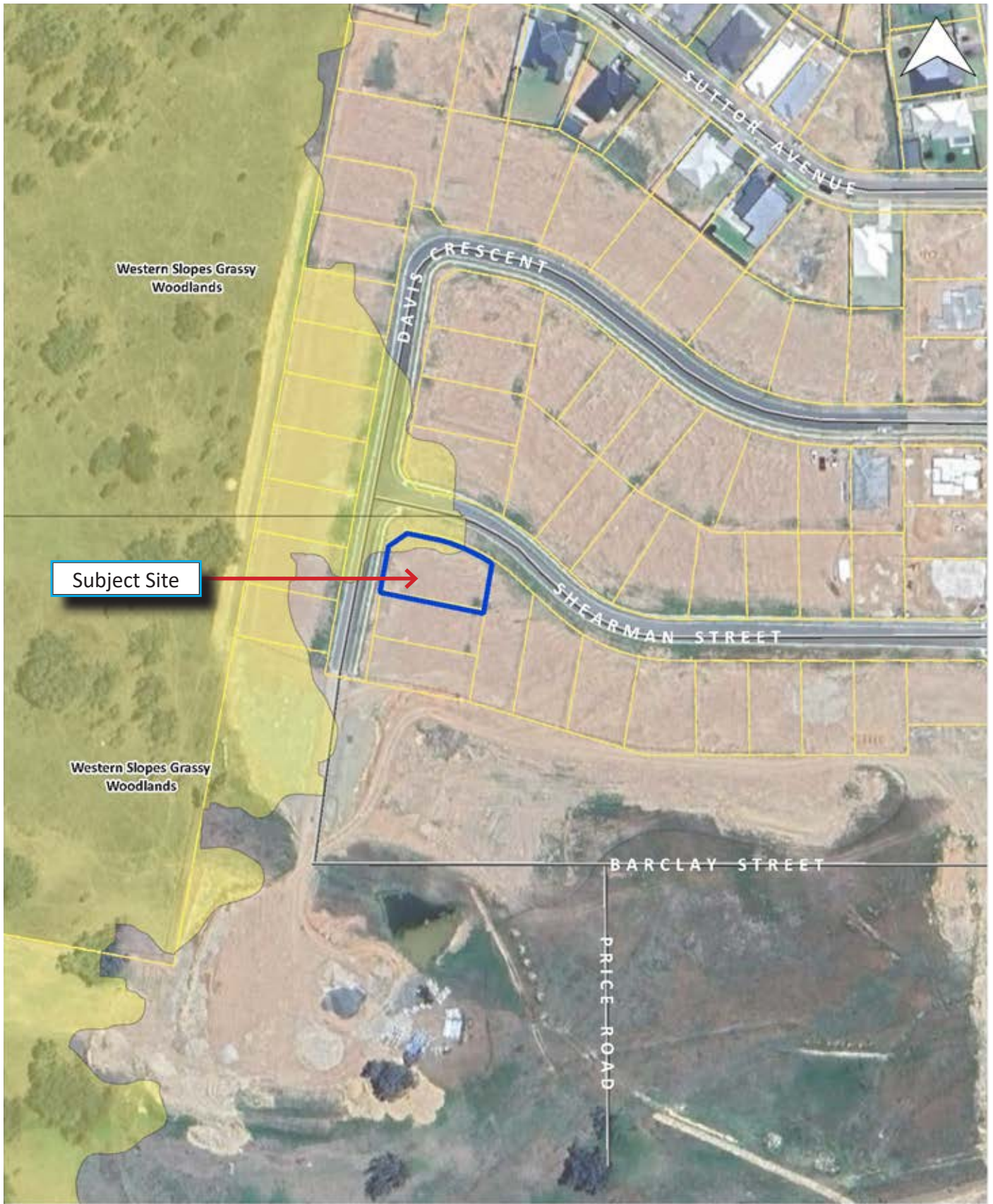


FIGURE B.04 VEGETATION CLASS

Subject Site
 Grassy Woodlands

CRS: EPSG:28355

Plot date: 09/09/2024



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 projects@bpad-nsw.com / 0406077222

B.05 VEGETATION PHOTOS



P1: Grassland to and Woodland to the west of the subdivision.





P2: Managed land to the south.



B.06 BUSHFIRE ATTACK LEVEL (BAL) ASSESSMENT.

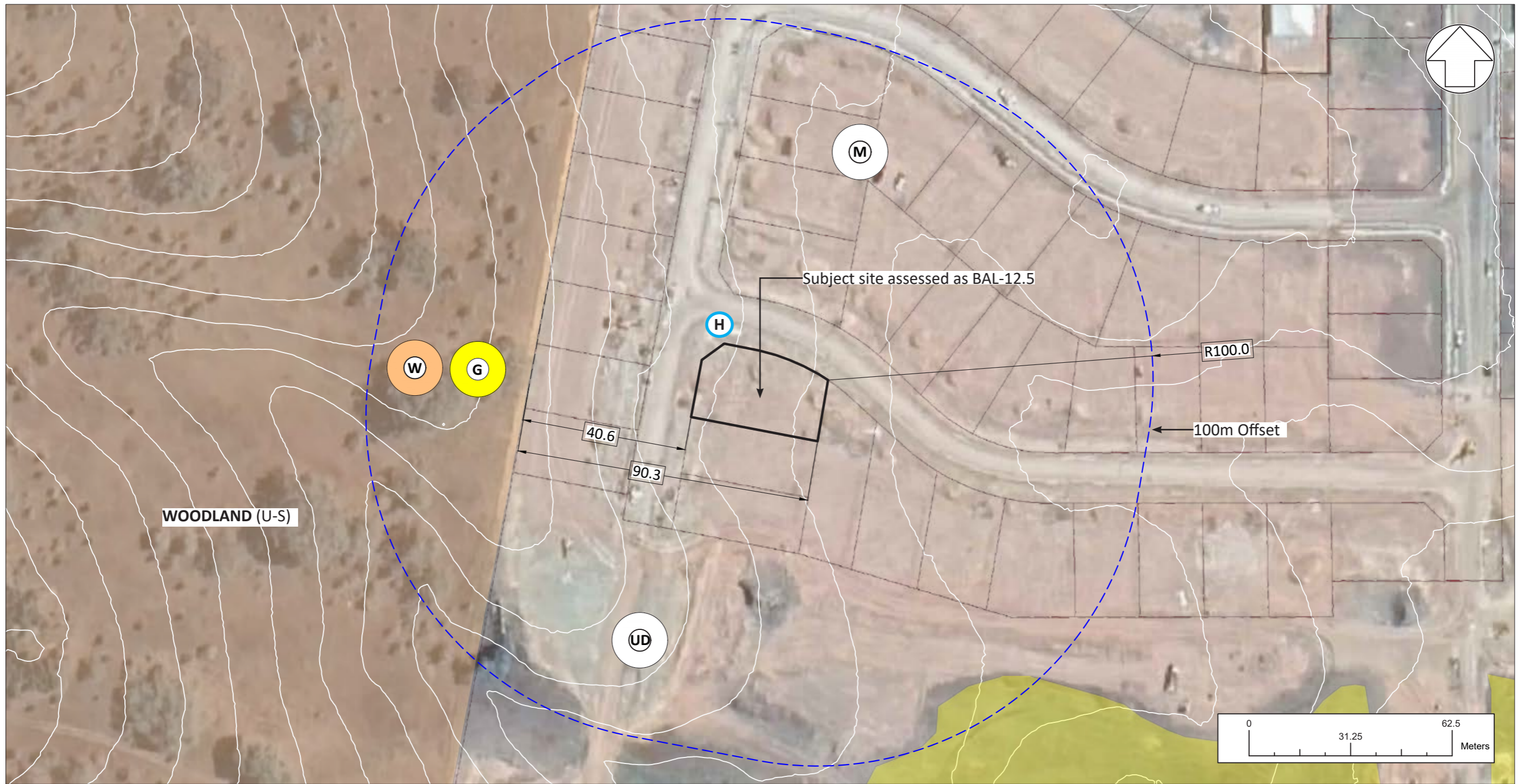
A combination of Grassland and Woodland is located to the west of the subdivision, approximately 40m to the west of the subject site. The land in all other directions is managed land for 100m.

Based on the parameters identified in Table 1 below, the proposed dwellings are assessed as BAL-12.5 as specified in AS3959 (2018).

TABLE 1 (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	BAL-Rating
W	Woodland	U-S	N/A	40-100m	>40m	BAL-12.5
AOD	Managed residential land					

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

¹	<i>Cardinal direction from each proposed building facade based on grid north.</i>
²	<i>Vegetation Classifications are as described in PBP (2019) A1.2.</i>
³	<i>Site slope is calculated from 1m LiDAR contours.</i>
⁴	<i>Minimum APZ required stated as Acceptable Solutions within Table 1.12.2 and A1.12.5. PBP (2019).</i>
⁵	<i>Actual dimensional setback from the face of the building to the assessed vegetation. Achieved Asset Protection Zone (APZ) or extent of managed land (EML).</i>
⁶	<i>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).</i>
⁷	<i>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).</i>
⁸	<i>Deeming provisions for grassland s.7.9 PBP (2019).</i>



VEGETATION KEY (Not all used in this drawing)



DRAWING LEGEND



BUSHFIRE PLANNING & DESIGN

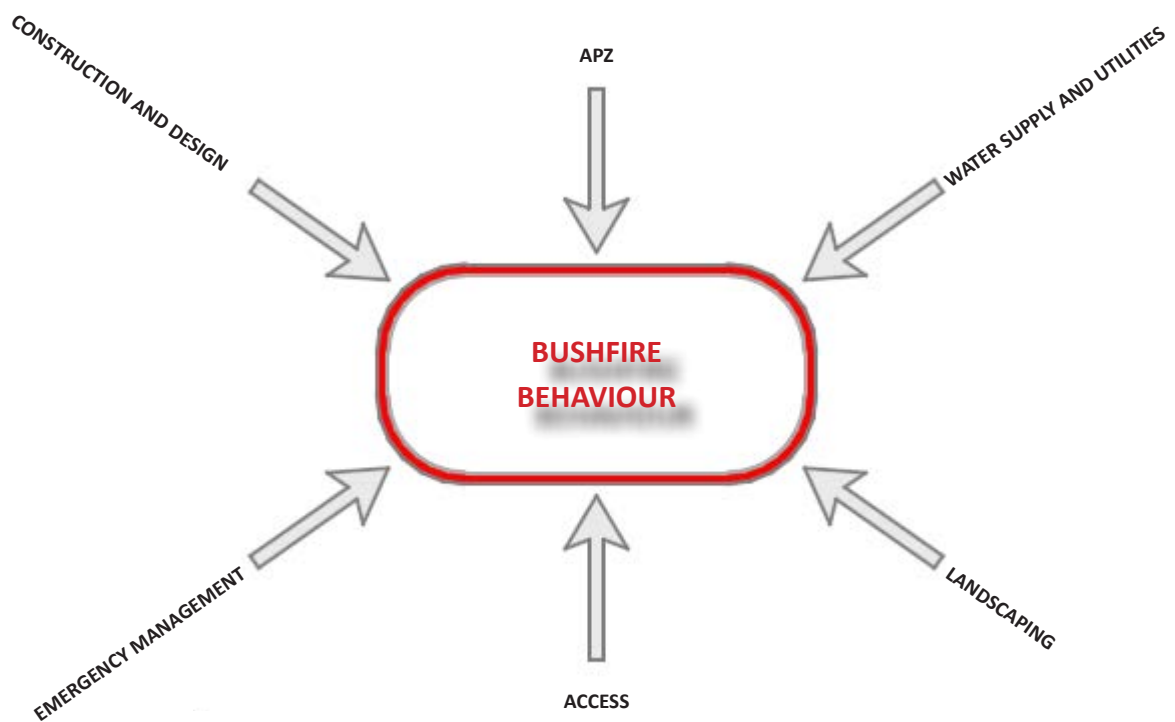
bpad.matthew.noone@gmail.com
0406077222

Figure:

A

PART C BUSHFIRE PROTECTION MEASURES / RECOMMENDATIONS

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)

The site is located within a recently approved subdivision. The APZ provisions for the parent subdivision have been previously addressed. The inherent management of the subject site and surrounding allotments is sufficient to achieve the nominated BAL-ratings and defensible space. The site is to be managed as an inner APZ in perpetuity. No vegetation is required to be removed for the purpose of managing an APZ.

VEGETATION IMPACT STATEMENT

The site is located in a new subdivision. All vegetation within and surrounding the site has been removed. There is no additional impact to native vegetation.

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 CONSTRUCTION

Our assessment of the Bushfire Attack Level indicates the proposed dwelling(s) could experience radiant heat loads up to 12.5 kW/m² if exposed to bushfire.

The proposed dwellings are to be constructed to comply with BAL-12.5 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).

Any proposed fencing should be constructed from hardwood or non combustible materials. New fencing within 6m of any habitable building should be made of non-combustible material only.

C.03 WATER, ELECTRICITY AND GAS

Intent of measures: To provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

WATER PROVISIONS

Reticulated water is provided on Shearman Street within 5m of the boundary. No additional water is required for fire fighting. All above-ground water service pipes (including taps and connections) external to the building are to be metal.

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.04 ACCESS

Intent of measures: To provide safe operational access for emergency services personnel in suppressing a bush fire, while residents are accessing or egressing an area.

ACCESS - PUBLIC ROADS

The subject site is accessed from Shearman Street to the north and Davis Crescent to the west. Davis Crescent and Shearman Street are sealed public roads. The public road system is deemed to be adequate for emergency services appliances.

ACCESS - PROPERTY ACCESS

There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency fire fighting vehicles

PART D SUMMARY

The development relates to the subdivision of the land to create two allotments. A dwelling will be constructed in each new allotment.

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. The development relates to the development of bushfire prone land and therefore must address the legislative requirements stipulated in Section 100B Rural Fires Act 1997.

The subject site is located in Caerleon which is within the Mid-Western Regional Local Government Area (LGA). The site is located in a recent subdivision and will be surrounded by managed residential curtilage in the near future. Access to the site is via Davis Crescent to the west and north. A combination of Grassland and Woodland is located to the west of the subdivision.

The APZ provisions for the parent subdivision have been previously addressed. The inherent management of the subject site and surrounding allotments is sufficient to achieve the nominated BAL-ratings and defensible space. The site is to be managed as an inner APZ in perpetuity. No vegetation is required to be removed for the purpose of managing an APZ.

The proposed dwellings are assessed as BAL-12.5 as indicated in Figure A and as specified in AS3959 (2018) the Australian Standard for the Construction of Buildings in a Bushfire Prone Area.

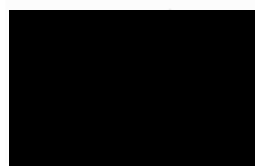
Access to the site via the public road system is suitable for emergency response vehicles. RFS do not require vehicular site access. Reticulated water is available on Shearman Street. No Additional water is required for fire fighting.

Should you have any questions in relation this report please get in contact.

Report prepared by:

Bushfire Planning and Design

Matthew Noone



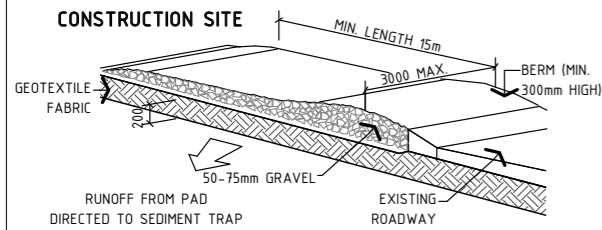
D.01 REFERENCES

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.

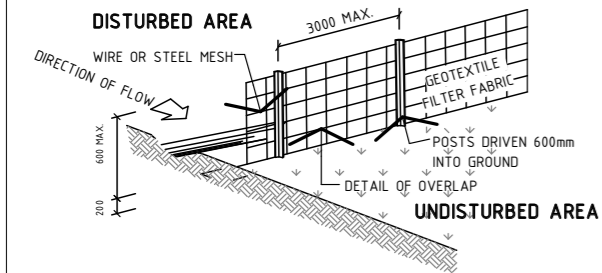
D.02 APPENDICES

Appendix A - Architectural Drawings.

APPENDIX A - ARCHITECTURAL DRAWINGS



DETAIL PLAN: CONSTRUCTION ENTRY / EXIT
NOT TO SCALE



DETAIL PLAN: SEDIMENT FENCE
NOT TO SCALE

EROSION & SEDIMENT CONTROL NOTES

- ALL EROSION & SEDIMENT CONTROL STRUCTURES ARE TO BE INSTALLED PRIOR TO SITE DISTURBANCE.
- ALL SEDIMENT CONTROL STRUCTURES TO BE INSPECTED & MAINTAINED BY THE BUILDER AT LEAST WEEKLY. IF STRUCTURES ARE TO BE REMOVED, THEY ARE TO BE REINSTALLED & INSPECTED BY THE BUILDER.
- ALL SEDIMENT RETAINING STRUCTURES TO BE CLEANED ON REACHING 50% STORAGE CAPACITY & SPREAD ON DISTURBED AREA.
- ACCESS TO SITE IS TO BE THROUGH USE OF THE ENTRY/EXIT SHOWN
- ALL VEGETATION OUTSIDE OF THE CONSTRUCTION AREA IS TO BE RETAINED WHERE POSSIBLE (VEGETATION BUFFER)
- STOCKPILES OF ERODIBLE BUILDING MATERIALS INCLUDING SAND & SOIL MUST BE LOCATED WITHIN THE DESIGNATED MATERIAL STOCKPILE AREA (MSA) & PROTECTED WITH SEDIMENT FENCE OR STRAW BALE SEDIMENT FILTERS. THE BUILDER MAY NOMINATE FURTHER STORAGE AREAS WITHIN THE SITE.
- NO STORAGE OF MATERIALS OR VEHICLE MOVEMENTS ARE TO OCCUR OUTSIDE THE SITE BOUNDARIES.

SITWORK NOTES

- CONFIRM ALL DIMENSIONS ON SITE TO EXISTING RESIDENCE PRIOR TO COMMENCEMENT OF ANY WORK
- THIS PLAN DOES NOT PROVIDE SPECIFIC LANDSCAPE PLANTING LOCATIONS
- THE EXACT LOCATION OF UNDERGROUND AND ABOVEGROUND SERVICES SHALL BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.
- THIS DRAWING SET TO BE READ IN CONJUNCTION WITH THE SPECIFICATION PROVIDED.
- BEWARE OF EXISTING SERVICES. CONFIRM LOCATIONS PRIOR TO EXCAVATION. TAKE EXTREME CARE.

02 | SITE, SUBDIVISION & LANDSCAPE PLAN
SCALE: 1:200 (A3)

LEGEND:

- TEMPORARY SITE MATERIAL DISPOSAL AREA DURING CONSTRUCTION. TO BE PROTECTED BY A SEDIMENT FENCE OR STRAW BALE FILTER.
- SITE ACCESS DURING CONSTRUCTION

SITE COVERAGE

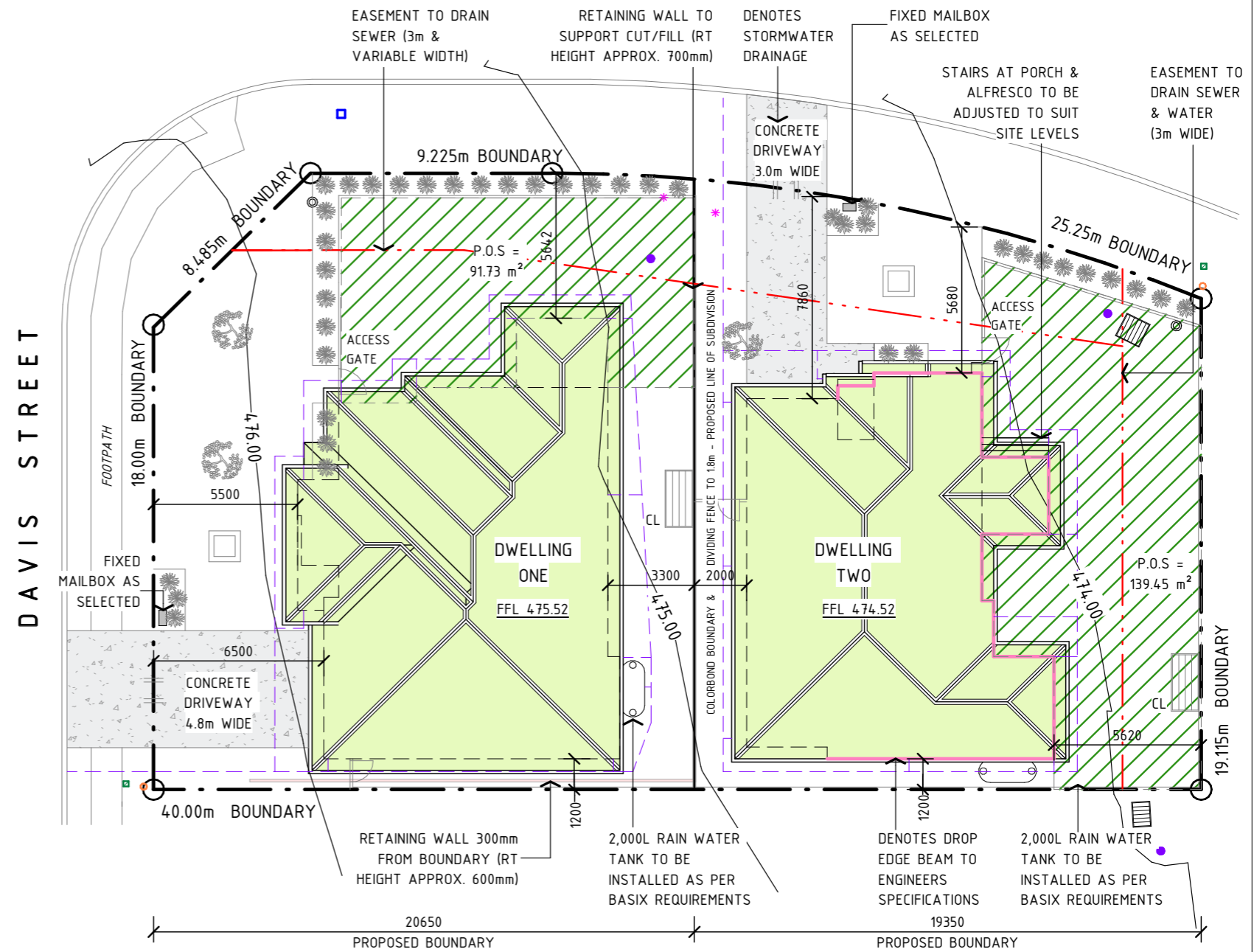
LOT 920 DP1274170 19 SHEARMAN STREET, CAERLEON	902.3 m ²
SITE COVERAGE	
TOTAL GFA INCLUDING PORCH & ALFRESCO AREAS	318 m ²
	35.24%
LANDSCAPING	
LANDSCAPING - INCLUDING GRAVEL AREAS LESS TOTAL DRIVEWAY & PATHWAYS	584.3 m ²
	57.95 m ²
	526.35 m ²
	58.33 %
PRIVATE OPEN SPACE (P.O.S)	
DWELLING ONE	91.73 m ²
DWELLING TWO	139.45 m ²
	231.18 m ²
	25.62 %

SUBDIVISION NOTES

LOT 920, 19 SHEARMAN STREET, CAERLEON DP1274170 - ZONING R1 GENERAL RESIDENTIAL	
TOTAL LOT 920 AREA	902.3 m ²
PROPOSED LOT 1 (DWELLING ONE)	477 m ²
PROPOSED LOT 2 (DWELLING TWO)	425.3 m ²

LANDSCAPING DETAILS

- SMALL SHRUBS TO 1.0m HIGH**
- SURFER BOY (PHORIUM)
 - BRONZE BABY (PHORIUM)
 - GOLF BABY (PITTSOPORUM)
- SMALL ORNAMENTAL TREES TO 3.0m HIGH**
- MANCHURIAN PEAR (PYRUS USSURIENSIS)
- CONSULT LOCAL NURSERY FOR AVAILABILITY AND SUSTAINABILITY OF SPECIES LISTED & SUBSTITUTE SIMILAR PLANTING IF REQUIRED. MULCH BEDS WITH WOODCHIP OR PEBBLES & FILL OUT OR LINE BEDS WITH GROUND COVERS OR SIMILAR SMALL PLANTS. EDGE BEDS WITH INSITU FORMED CONCRETE ROLLED EDGE, SLEEPERS, MASONARY BLOCK EDGING OR SIMILAR AS SELECTED.
- KIKUYU TURF TO ALL AREAS, UNLESS GRAVEL IS STATED AND DISPLAYED OTHERWISE.
- AT BUILDERS DISCRETION SUBSTITUTE SHRUBS AND TREES MAY BE USED TO REPLACE THIS ABOVE MENTIONED SPECIES AND ALSO THE LOCATION OF GARDEN BEDS, SHOULD THE SITE LEAD TO AN ALTERNATIVE / MORE SUITABLE OPTION.



LEGEND

- WATER METER
- WATER HYDRANT
- DRAIN GRATE
- ELECTRICAL PILLAR
- SEWER BOUNDARY RISER
- TELECOMMUNICATIONS PIT
- SEWER MAN HOLE

ISSUED FOR DA APPROVAL

Rev	Date	Description
A	9/11/23	ISSUED FOR REVIEW
B	23/11/23	ISSUED FOR REVIEW
C	6/12/23	ISSUED FOR REVIEW
D	16/05/24	ISSUED FOR REVIEW
E	22/08/24	ISSUED FOR DA APPROVAL

NOTE:
ALL DRAWINGS TO BE READ IN CONJUNCTION WITH:
- ALL SHEETS TO THIS SET OF PLANS
- SEPARATE SPECIFICATION DOCUMENTS
- STRUCTURAL ENGINEERS DOCUMENTATION
- PCA DOCUMENTS (WHERE APPLICABLE)
- BASIX CERTIFICATE
- ALL RELEVANT CODES, STANDARDS & APPROVALS



LYNCH BUILDING GROUP
Client: AHMEDI
Project: PROPOSED DUAL OCCUPANCY AT 19 SHEARMAN STREET, CAERLEON (LOT 920)



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Drawing Title: SITE, SUBDIVISION & LANDSCAPE PLAN
Design: LBG Sheet 03 of 10
Drawn: G.HACKETT Drawing Number
Check: J.LYNCH 0501 - A03 Revision: E