Bushfire Assessment Report

Proposed:Alterations & Additions

At: 4C Minkara Road Bayview

Reference Number: 230867

21st June 2023



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This report has been prepared as a submission document in support of a development application to Council and in instances may rely upon information provided by a number of external sources including Councils, State Government Agencies and it is assumed that the information provided was accurate at the time. This report cannot be relied upon for commencement of works or construction until such time as it has been endorsed or otherwise included within the consent conditions issued by Council as part of the DA determination.

S4.14 applications (under the Environmental Planning and Assessment Act 1979) and all infill development applications <u>may</u> be referred by Council to the NSW Rural Fire Service for review and concurrence during the DA process. S100B applications under the Rural Fires Act 1997 (subdivisions and Special Fire Protection Purpose Developments), Flame Zone determinations and Alternate Solutions <u>must</u> be referred by Council to the NSW Rural Fire Service for review and receipt of a Bushfire Safety Authority (BSA) or other such recommended conditions from the NSW Rural Fire Service before the consent can be granted.

The onus is on the applicant to cross reference this document with any conditions of consent issued by Council or any requirements supplied by the NSW Rural Fire Service following development approval. BCBHS can review and cross reference these documents however the onus is on the applicant to provide them to us and request this review — Building Code and Bushfire Hazard Solutions Pty. Ltd. is not in a position to track every DA through Council and we rely upon the applicant to undertake this role as project co-ordinator.

Where any discrepancy between this document and the development approval or the NSW Rural Fire Service requirements is found, the conditions of consent always take precedence until such time as an application to review, amend or vary these conditions is approved.

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| | Version Control | | | |
|---------|-----------------|---------------|-----------------|--------------|
| Version | Date | Prepared by | Prepared by | Details |
| 1 | 24/04/2023 | Duncan Armour | Andrew Muirhead | Final Report |
| 2 | 21/06/2023 | Duncan Armour | Andrew Muirhead | Plan Update |

List of Abbreviations:

APZ Asset Protection Zone

AS3959 Australian Standard 3959 – 2018 as amended

BAL Bushfire Attack Level

BCA Building Code of Australia

BPMs Bushfire Protection Measures

BPLM Bushfire Prone Land Map

Council Northern Beaches Council

DA Development Application

EP&A Act Environmental Planning and Assessment Act - 1979

ESD Ecologically Sustainable Development

FRNSW Fire & Rescue NSW

IPA Inner Protection Area

NCC National Construction Code

NP National Park

NSP Neighbourhood Safer Place

OPA Outer Protection Area

PBP Planning for Bush Fire Protection - 2019

RF Act Rural Fires Act - 1997

RFS NSW Rural Fire Service

SEPP State Environmental Planning Policy

SFPP Special Fire Protection Purpose

SFR Short Fire Run

SWS Static Water Supply

1.0 Introduction

The development proposal relates to the alterations and additions to an existing dual occupancy dwelling and construction of a swimming pool within an existing residential allotment located at 4C Minkara Road, Bayview.

The subject property has street frontage to the Minkara Road to the west and abuts similar private residential allotments to the north, south and east.

Properties considered to be affected by possible bushfire impact are determined from the local Bushfire Prone Land Map as prepared by Council and or the Rural Fire Service. All property development within affected areas is subject to the conditions detailed in the document 'Planning for Bush Fire Protection - 2019' (PBP).

PBP provides for the protection of property and life (including fire-fighters and emergency service personnel) from bushfire impact.

Northern Beaches Council's Bushfire Prone Land Map identifies the subject property as containing Category 1 Vegetation and Vegetation Buffer, therefore PBP must apply in this instance.

As the proposal relates to the alterations and additions to an existing sole occupancy dwelling and construction of detached pool house and pool the proposal must comply with the bushfire protection measures detailed within Chapter 7 'Residential Infill Development' of PBP and Chapter 8 'Other Development' of PBP must also be considered in relation to the pool house and pool.

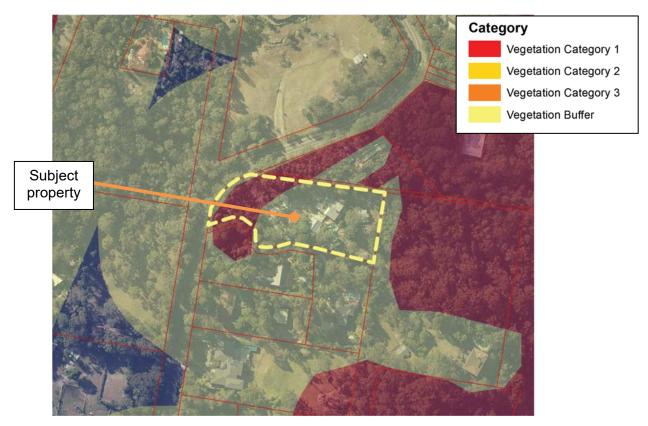


Figure 01: Extract from Northern Beaches Council's Bushfire Prone Land Map

2.0 Legislative Requirements

The subject site is designated as Bushfire Prone Land (Figure 01).

In accordance with section 4.14 of the *Environmental Planning and Assessment Act* 1979 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 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, 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.

This Bushfire Assessment Report and accompanying certificate has been reviewed and endorsed by Andrew Muirhead who is recognised by the NSW Rural Fire Service (RFS) as qualified in bushfire risk assessment and has been accredited by the Fire Protection Association of Australia as a Level 2 BPAD qualified practitioner (BPAD46966).

3.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide the owners, the Rural Fire Service and Council with an independent bushfire assessment together with appropriate recommendations for both new building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The recommendations contained within this report may assist in forming the basis of any specific construction conditions and/or bushfire mitigation measures that Council and/or the NSW Rural Fire Service may elect to place within any consent conditions issued for the subject Development Application.

4.0 Scope of this Report

The scope of this report is limited to providing a bushfire assessment and recommendations for the subject property. Where reference has been made to the surrounding lands, this report does not purport to directly assess those lands; rather it may discuss bushfire impact and/or progression through those lands and possible bushfire impact to the subject property.

5.0 Compliance Tables & Notes

The following table sets out the projects compliance with *Planning for Bush Fire Protection – 2019*.

| | North | East | South | West |
|--------------------------------------|-----------------------------------|---|-----------------------------------|-----------------------------------|
| Vegetation Structure | Maintained land | Forest | Maintained land | Forest |
| Slope | N/A | 10 - 15 degrees down | N/A | 0 degrees & up |
| Asset Protection Zone | N/A | >45 metres | N/A | 97 metres |
| Significant Landscape Features | Neighbouring private allotment | Minkara Road / Neighbouring private allotment | Neighbouring private allotment | Neighbouring private allotment |
| Threatened Species | APZ Existing | APZ Existing | APZ Existing | APZ Existing |
| Aboriginal Relics | APZ Existing | APZ Existing | APZ Existing | APZ Existing |
| Bushfire Attack Level | N/A | BAL 29 | N/A | BAL 12.5 |
| Required Construction Level | BAL 29 | BAL 29 | BAL 29 | BAL 19 |

| Compliance Summary of Bushfire Protection Measures | | | |
|--|------------------------|-------------------------|----------------|
| Bushfire Protection Measure (s7.4 PBP) | Acceptable Solution | Performance Solution | Report Section |
| Asset Protection Zones | \boxtimes | | 7.02 |
| Construction Standard | \boxtimes | | 7.03 |
| Access | \boxtimes | | 7.04 |
| Water Supply | \boxtimes | | 7.05 |
| Gas and Electrical Supplies | \boxtimes | | 7.05 |

Asset Protection Zones

The Asset Protection Zone (APZ) to the proposed works was measured to be 45 metres to the east and 97 metres to the west.

The APZ consists of maintained grounds within the subject property and existing managed land within neighbouring private residential allotments and Minkara Road.

All grounds within the subject site will continue to be maintained in accordance with an Inner Protection Area.

Construction Level

The highest Bushfire Attack Level for the proposed alterations and additions was determined from Table A1.12.5 of PBP to be 'BAL 29'.

The proposed alterations and additions to the dwelling are required to comply with section 3 and section 7 (BAL 29) under AS 3959 – 2018 and the additional construction requirements under section 7.5 of PBP. In accordance with A1.8 of PBP works facing west have been downgraded to BAL 19 due to shielding provided by the building itself.

In relation to the proposed pool section 8.3.2 of PBP states:

The NCC defines a Class 10 building as a non-habitable building or structure such as a:

- a. Class 10a a non-habitable building being a private garage, carport, shed or the like; or
- b. Class 10b a structure being a fence, mast, antenna, retaining or free-standing wall, swimming pool, or the like; or
- c. Class 10c a private bush fire shelter

There is no bush fire protection requirements for Class 10a buildings located more than 6m from a dwelling in bush fire prone areas. Where a Class 10a building is located within 6m of a dwelling it must be constructed in accordance with the NCC.

The proposed pool will be located greater than 6 metres from any dwelling and therefore shall have no bushfire construction requirements.

Access and Services

| Guideline Ref. | Proposed Development Determinations | |
|-------------------------------|---|--|
| Property Access (Driveway) | The most distant external point of the subject dwelling is >70 metres of a public road supporting a hydrant network and therefore the Access requirements detailed in Table 7.4a of PBP are applicable. | |
| Water Supply | The most distant external point of the building footprint is >90 metres from an operational hydrant and therefore a Static Water Supply is required in consideration of AS2419.1 – 2021 and chapter 7 of PBP. | |
| Evacuation | Evacuation is possible by utilising existing road infrastructure. It is encouraged that the occupants complete a Bush Fire Survival Plan. | |
| Electrical Supply | Existing electrical supply provided. | |
| Gas Supply | New connections must comply with Table 7.4a of PBP. | |

5.0 Aerial view of the subject allotment

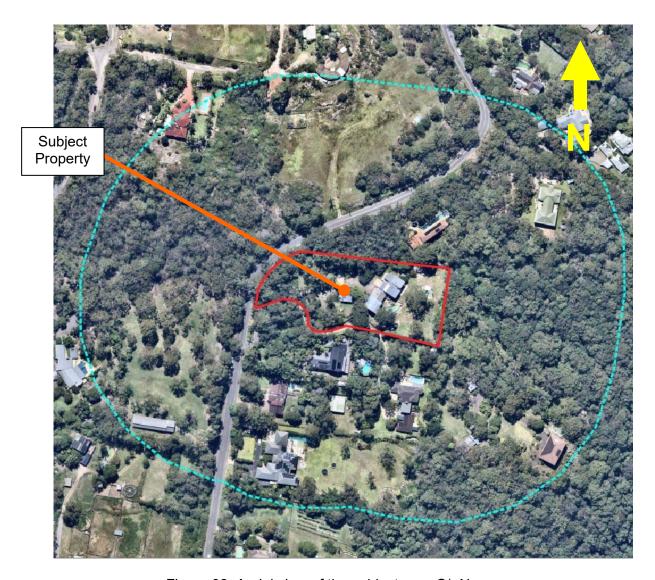


Figure 02: Aerial view of the subject area C/- Nearmap

7.0 Site Assessment

A representative of Building Code & Bushfire Hazard Solutions has completed a site inspection of the subject site and surrounding area on 13th April 2023.

In addition the following external data sources have been relied upon for this assessment:

- Aerial imagery of the subject area (NSW Spatial Services & Nearmap);
- 1 metre contour mapping of the subject area (Elevation and Depth Foundation Spatial Data

 Geoscience Australia)
- NSW Planning Portal Spatial Viewer
- Vegetation mapping (NSW State Vegetation)
- NSW Bush Fire Prone Land (ePlanning Portal)

7.01 Location

The subject property is known as 4C Minkara Road, Bayview (Lot 53 DP 774017) and is a residential allotment located within Northern Beaches Council's Local Government Area.

The subject property has street frontage to the Minkara Road to the west and abuts private residential allotments to the north, south and east.

The vegetation identified as being the hazard is within vegetated neighbouring properties to the east and west of the proposed works.



Photograph 01: View across the subject site toward the subject dwelling.

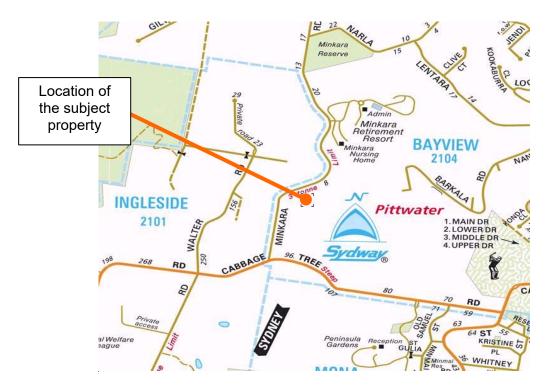


Figure 03: Extract from street-directory.com.au

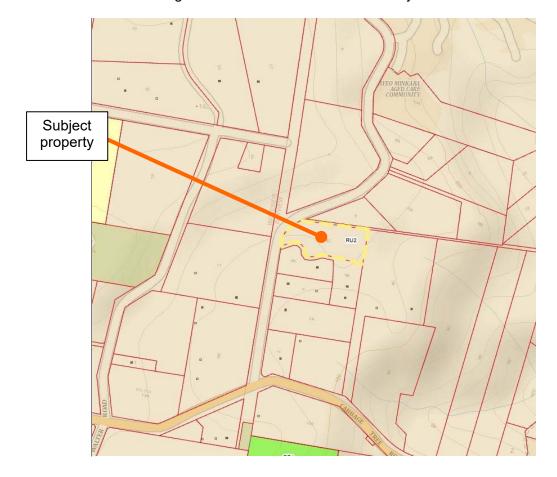


Figure 04: Extract from ePlanning Spatial Viewer - Land Zoning

7.02 Vegetation

The vegetation identified as being the hazard is within neighbouring properties to the east and west of the proposed works.

The vegetation posing a hazard was found to consist of trees 10 - 20 metres in height with 50 - 70% foliage cover, the understorey consisted of low trees, shrubs and exotics. The NSW Vegetation mapping identifies the vegetation as Sydney Coastal Sandstone Gully Forest (PCT: 3595), Blue Gum High Forest (PCT: 3136) and Central Coast Escarpment Moist Forest (PCT: 3230).

The vegetation indicated as a hazard to the north of the subject site was found to consist of mature trees over mown lawns and it not considered a hazard.

For the purposes of assessment under 'Planning for Bush Fire Protection' the vegetation posing a hazard to the east and west of the proposed works has been determined to be Forest.



Photograph 02: View into the northern neighbouring allotment, showing the maintained grounds.



Photograph 03: View into the northern neighbouring allotment, showing the maintained grounds.



Figure 05: Extract from Vegetation Mapping NSW

7.03 Fire Weather

All development which attracts an Asset Protection Zone and Bushfire Attack Level under PBP requires the identification of the relevant Forest Fire Danger Index (FFDI). The FFDI required to be used for development assessment purposes is based on the local government boundaries, being Northern Beaches Council in this instance.

In accordance with the NSW Rural Fire Service publication 'NSW Local Government Areas FDI' (2017) Northern Beaches Council forms part of the Greater Sydney Region Fire Weather District and attracts an FFDI of 100.

7.04 Slope and Topography

The slope of the land under the classified vegetation has a direct influence on the forward rate of spread, fire intensity and radiant heat exposure. The effective slope is considered to be the slope under the classified vegetation which will most significantly influence bushfire behaviour toward the development site.

In accordance with A1.4 'Determine slope' of PBP the slope assessment is to be derived from the most detailed contour data available.

The slope that would **most significantly** influence bushfire behaviour was determined from topographic imagery (1 metre contours sourced from ELVIS - Geoscience Australia) to be:

- ➤ 10 15 degrees down slope within the hazard to the east
- O degrees & up slope within the hazard to the west



Figure 04: Aerial view of the subject property courtesy Elevation Foundation Spatial Data – Geoscience Australia (1 metre contours)

8.0 Bushfire Protection Measures

8.01 Planning for Bush Fire Protection - 2019

Planning for Bush Fire Protection – 2019 (PBP) is applicable to development located on land determined as being 'bushfire prone' in accordance with the local Bushfire Prone Land Map.

Bushfire prone land are defined as those areas;

- containing or within 100m of Category 1 Vegetation; or
- containing or within 30m of Category 2 or 3 Vegetation.

Northern Beaches Council's Bushfire Prone Land Map identifies the subject property as containing Category 1 Vegetation and the Vegetation Buffer, therefore PBP must apply in this instance.

The application of Planning for Bush Fire Protection requires satisfactory demonstration of the aim and objectives and the following bushfire protection measures (BPMs):

- Asset Protection Zones
- Building construction, siting & design
- Access arrangements
- Water supply & utilities
- Landscaping

As the proposal relates to the alterations and additions to an existing dual occupancy dwelling and construction of a pool the proposal must comply with the bushfire protection measures detailed within Chapter 7 'Residential Infill Development' of PBP and Chapter 8 'Other Development' of PBP must also be considered in relation to the pool.

8.02 Asset Protection Zones

An Asset Protection Zone (APZ) is an area between the development (in this instance the building footprint) and the identified bushfire hazards where the fuels are maintained to a minimum to prevent the spread of fire between a hazard and an asset.

The width of the APZ is determined by the vegetation structure of the identified hazard, Forest Fire Danger Index, effective slope and the type of development (residential development or Special Fire Protection Purpose).

The Acceptable Solution under Table 7.4a of PBP requires APZs be provided in accordance with Table A1.12.2, consistent with that for residential subdivisions. The minimum required APZ for the proposed works was determined from Table A1.12.2 of PBP to be 24 metres from the bushfire hazard to the east and 45 metres from the bushfire hazard to the west.

The existing APZs were measured to be >45 metres to the east and 97 metres to the west exceeding the minimum requirement. The separation from the hazard includes maintained grounds within the subject site and neighbouring allotments.

All grounds within the subject property not built upon for the distances as detailed above or to the property boundary whichever comes first are to be maintained in accordance with an Inner Protection Area (IPA) as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones'.

Note: at the time of our inspection, the APZs were existing and no tree removal is required to implement the above APZs.

8.03 Building construction, siting & design

Australian Standard 3959 – 2018 'Construction of buildings in bushfire-prone areas' (AS3959) specifies construction standards for buildings within various Bushfire Attack Levels as determined by Planning for Bush Fire Protection – 2019.

AS3959 provides for six (6) levels of building construction these being BAL - Low, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 and BAL - FZ.

| Correlation between bushfire impact and AS3959 | | |
|--|-----------------------------|--|
| Bushfire Attack | Maximum radiant heat impact | Level of construction |
| Level | (kW/m²) | under AS3959-2018 No special construction |
| Low | | requirements |
| 12.5 | ≤12.5 | BAL - 12.5 |
| 19 | 12.6 to 19.0 | BAL - 19 |
| 29 | 19.1 to 29.0 | BAL - 29 |
| 40 | 29.1 to 40.0 | BAL - 40 |
| Flame Zone | >40.0 | BAL FZ No deemed to satisfy provisions |

The highest Bushfire Attack Level to the proposed works was determined from Table A1.12.5 of PBP to be 'BAL 29'. The proposed works will be constructed to sections 3 & 7 (BAL 29) under AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP. In accordance with A1.8 of PBP works facing west have been downgraded to BAL 19 due to shielding provided by the building itself.

In relation to the proposed pool section 8.3.2 of PBP states:

The NCC defines a Class 10 building as a non-habitable building or structure such as a:

- a. Class 10a a non-habitable building being a private garage, carport, shed or the like; or
- b. Class 10b a structure being a fence, mast, antenna, retaining or free-standing wall, swimming pool, or the like; or
- c. Class 10c a private bush fire shelter

There is no bush fire protection requirements for Class 10a buildings located more than 6m from a dwelling in bush fire prone areas. Where a Class 10a building is located within 6m of a dwelling it must be constructed in accordance with the NCC.

The proposed pool will be located greater than 6 metres from any dwelling and therefore will have no bushfire related construction requirements.

8.04 Property Access

The subject property has street frontage to Minkara Road to the west. Persons seeking to egress from the subject property are able to do so via the existing access drive and public roads.

The most distant external point of the subject building is >70 metres from a public road supporting the operational use of fire fighting vehicles and therefore the Access requirements detailed in Table 7.4a of PBP are applicable. A sealed access drive runs along the northern boundary of the subject property which can be used to access the eastern hazard. The existing access drive is not being altered as part of this development.

Access to the hazard is available via the subject property, sealed access to the north and Minkara Road for hazard reduction for fire suppression activities. The existing access is considered adequate for attending fire services for this application.

8.05 Water Supply

Hydrants are available throughout the Minkara Road and surrounding streets for the replenishment of fire service vehicles. The most distant external point of the building footprint is <90 metres from an operational hydrant and therefore a Static Water Supply is required in consideration of AS2419.1 – 2021 and section 7.4 of PBP. Regardless, the proposed swimming pool and additional water tanks on site that could be used as a Static Water Supply.

The existing water supply is considered adequate for the replenishment of attending fire services and will be supplemented as part of this development (proposed pool).

The subject dwelling is connected to the existing electrical network.

Any new gas connections must comply with Table 7.4a of PBP.

8.06 Emergency management arrangements

Evacuation is possible by utilising existing road infrastructure.

It is encouraged that the occupants complete a Bush Fire Survival Plan. The template for this plan is available at https://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan.

8.07 Landscaping

Any new landscaping must comply with Appendix 4 of Planning for Bush Fire Protection 2019.

8.08 Aim & Objectives of PBP

The following table details the aim and objectives of *Planning for Bush Fire Protection 2019* and the proposals ability to comply.

| Aim / Objective | Comment |
|--|--|
| 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. | With the inclusion of the recommendations made herein it is of our opinion that the aim of PBP has been satisfied. |
| (i) afford buildings and their occupants protection from exposure to a bush fire; | The proposed works will be constructed in accordance with the relevant Bushfire Attack Levels and along with the APZ will provide the occupants protection from the exposures of a bushfire. |
| (ii) provide for a defendable space to be located | The APZ will provide a reasonable defendable space. |

around buildings;

Aim / Objective

Comment

(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings; The proposed APZ in conjunction with the construction to the relevant BAL will prevent the likely fire spread to the buildings.

(iv) ensure that appropriate operational access and egress for emergency service personnel and occupants is available; The existing access provisions provide appropriate operational access and egress for emergency service personnel and occupants.

(v) provide for ongoing management and maintenance of bush fire protection measures, (BPMs); and

All grounds within the subject site will be maintained in accordance with an Asset Protection Zone / Inner Protection Area as detailed in Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW Rural Fire Service publication 'Standards for Asset Protection Zones'.

Any new landscaping within the APZs is to comply with the provisions of Table 7.4a and Appendix 4 of PBP.

(vi) ensure that utility services are adequate to meet the needs of firefighters.

Hydrants are available throughout the Minkara Road and surrounding streets for the replenishment of fire service vehicles.

It is therefore of our opinion that the proposal can satisfactorily comply with the aim and objectives of *Planning for Bush Fire Protection 2019*.

9.0 Recommendations

The following recommendations are provided as the minimum necessary for compliance with Planning for Bush Fire Protection – 2019 and Australian Standard 3959 'Construction of buildings in bushfire-prone areas - 2018. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

Asset Protection Zones

1. That at the commencement of construction and in perpetuity all grounds within the subject site shall continue to be maintained as an Asset Protection Zone as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 4 of Planning for Bush Fire Protection 2019.

Construction

- 2. That all new roofing and construction facing north, south and west shall comply with sections 3 and 7 (BAL 29) Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "Planning for Bush Fire Protection 2019".
- 3. That all new construction facing west shall comply with sections 3 and 6 (BAL 19) Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "Planning for Bush Fire Protection 2019".

Landscaping

4. That any new landscaping is to comply with Appendix 4 under *Planning for Bush Fire Protection* 2019.

Gas (where applicable)

- 5. That any new gas services are to comply with Table 7.4a of *Planning for Bush Fire Protection* 2019 as follows:
 - 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 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 metal;
 - polymer-sheathed flexible gas supply lines are not used; and above-ground gas service pipes are metal, including and up to any outlets.

10.0 Conclusion

Given that the property is deemed bushfire prone under Northern Beaches Council's Bushfire Prone Land Map any development would need to meet the requirements of *Planning for Bush Fire Protection* – 2019 and of the construction requirements of AS3959 – 2018. The determination of any bushfire hazard must be made on a site-specific basis that includes an assessment of the local bushland area and its possible impact to the subject property.

As the proposal relates to the alterations and additions to a dual occupancy dwelling and construction of a pool the proposal must comply with the bushfire protection measures detailed within Chapter 7 'Residential Infill Development' of PBP and Chapter 8 'Other Development' of PBP must also be considered in relation to the pool.

The vegetation identified as being the hazard is within neighbouring properties to the east and west of the proposed works. For the purposes of assessment under Planning for Bush Fire Protection the vegetation posing a hazard to the east and west has been determined to be Forest.

The Asset Protection Zones (APZs) to the proposed works were measured to be >45 metres to the east and 97 metres to the west.

The highest Bushfire Attack Level for the proposed dwelling was determined from Table A1.12.5 of PBP to be 'BAL 29'. The proposed alterations and additions to the dwelling shall comply with BAL 29 under sections 3 and 7 of Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2018 and the additional construction measures detailed in section 7.5 of *Planning for Bush Fire Protection 2019*. All new works facing west have been downgraded to BAL 19 due to shielding provided by the building itself.

The existing water supply and access provisions are considered adequate in this instance, with the water supply being supplemented.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development.

We are therefore in support of the development application.

Should you have any enquiries regarding this project please contact me at our office.

Prepared by

Building Code & Bushfire Hazard Solutions

Reviewed and endorsed by <u>Building Code & Bushfire Hazard Solutions</u>

Duncan ArmourBushfire Consultant

Andrew Muirhead

Bushfire Consultant
Graduate Certificate in Bushfire Protection
Diploma of Engineering.

FPA Australia BPAD Level 2 Accredited Practitioner

BPAD Accreditation No. BPAD46966

10.0 Annexure 01

List of Referenced Documents

Australian Building Codes Board (2019). National Construction Code Volume Two - Building Code of Australia. ABCB

ELVIS -Elevation -*Foundation Spatial Data*. Elevation.fsdf.org.au. Available at: http://elevation.fsdf.org.au/

Keith, D. (2004). "Ocean Shores to Desert Dunes" Department of Environment and Conservation, Sydney

NSW Department of Planning and Environment (2019). *Planning Portal*. Accessed at: https://www.planningportal.nsw.gov.au/

NSW Rural Fire Service (2019). *Planning for Bush Fire Protection. A Guide for Councils, Planners, Fire Authorities and Developers.*

Plans by Progressive Plans, Project No. 1010, Revision A, Dated 13/06/2023

Standards Australia (2018). AS3959 Construction of buildings in bushfire-prone areas.

Standards Australia (2014). AS/NZS 1596 The storage and handling of LP Gas

Rural Fire Service NSW (2005). Standards for Asset Protection Zones

Acknowledgements to:

Elevation Foundation Spatial Data – Geoscience Australia Nearmap.com NSW Department of Lands – SIXMaps Street-directory.com.au

Attachments

Attachment 01: s4.14 Compliance Certificate



Bushfire Hazard Solutions

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BUSHFIRE RISK ASSESSMENT CERTIFICATE UNDER PART 4 DIVISION 4.3 SECTION 4.14 OF THE EP&A ACT 1979 NO 203

| PROPERTY ADDRESS: | 4C Minkara Road, Bayview | |
|--|--|--|
| DESCRIPTION OF PROPOSAL: | Alterations and additions | |
| PLAN REFERENCE: (relied upon in report preparation) | Plans by Progressive Plans, Project No. 1010, Revision A, Dated 13/06/2023 | |
| BAL RATING: | BAL 29 | |
| BUSHFIRE ASSESSMENT REPORT REFERENCE: | 230867 | |
| REPORT DATE | 21 June 2023 | |
| CERTIFICATION NO/ACCREDITED SCHEME | BPAD46966 | |

I Of ål^, ÁT å @ æå of Building Code and Bushfire Hazard Solutions Pty Ltd hereby certify, in accordance with Part 4 Division 4.3 Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203:

- 1. That I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment; and
- 2. That subject to the recommendations contained in the Bushfire Risk Assessment Report the proposed development conforms specifications and requirements of the documents entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other documents as prescribed by Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*.

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 Bush Fire Protection 2019*.

Signature: ______ Date: 21 June 2023

