



Building Code & Bushfire Hazard Solutions

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National Spiritual Assembly of the Baha'is of Australia Incorporated
C/- Jimbo & Co
Email: ivor@jimboand.co

22nd August 2023
Our Ref. 240055

Attention: Ivor Dacic

**Re: PROPOSED ALTERATIONS AND ADDITIONS
LOT 52 DP 1152609 / 173 MONA VALE ROAD, INGLESIDE
BUSHFIRE ASSESSMENT STATEMENT**

Dear Ivor,

We thank you for the opportunity of undertaking this assessment for you.

The development application relates to the alterations and additions to a place of public worship within an existing allotment known as 173 Mona Vale Road, Ingleside (Lot 52 DP 1152609). The subject property is located within Northern Beaches Council's Local Government Area and has street frontage to Mona Vale Road to the south and east and Addison Road to the west and abuts neighbouring rural / residential lots to the north.

Properties considered to be affected by possible bushfire impact are determined from local Bushfire Prone Land Map's 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).

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

The purpose of this bushfire assessment is to provide the owners and Council with an independent bushfire hazard determination together with appropriate recommendations for both building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The scope of this statement is limited to providing a bushfire assessment and recommendations for the alterations and additions within the subject property. Where reference has been made to the surrounding lands, this statement 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.

The proposed development relates to the alterations and additions to an existing place of public worship (s4.14 application). To accord with PBP the development is classified as infill development.

The most appropriate method of determining the site bushfire hazard under the terms of PBP is to consider the site in a singular form.

Bushfire prone areas are defined as those areas;

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

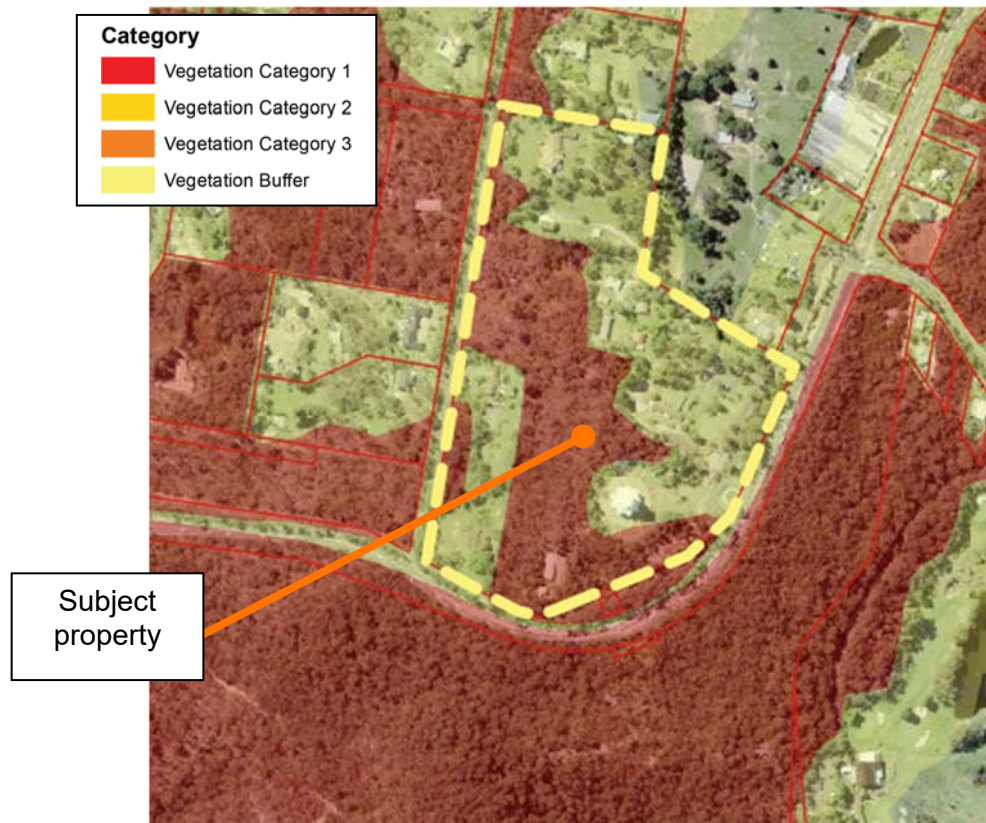


Figure 01: Extract from Northern Beaches Council's Bushfire Prone Land Map



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

Vegetation Identification:

The predominant vegetation within the subject property around the existing building was found to consist of landscaped gardens and mown lawns.

The vegetation identified as being the hazard is to the north, south, east and west within the subject property and Garigal National Park. The vegetation posing a bushfire hazard was found to consist of trees 10 - 20 metres in height with a 30 - 70% foliage cover and an understorey of small trees and shrubs.

A review of vegetation mapping (Vegetation NSW) has found the vegetation surrounding the subject building is classified as Sydney Coastal Sandstone Bloodwood Shrub Forest (PCT: 3593) and Sydney Coastal Coachwood Gallery Rainforest (PCT: 3038).

For the purpose of assessment under Planning for Bush Fire Protection the vegetation posing a hazard to the proposed works has been determined to be Forest.



Figure 03: Aerial view of the subject area overlaid with vegetation mapping (Vegetation NSW)
Subject site (thick red outline)

Slope Analysis:

The slope that would most significantly influence bushfire behaviour must be assessed for a distance of 100 metres from within the hazard. The most significant bushfire impact is expected to be a bushfire travelling up slope toward the subject dwelling.

The slope that would **most significantly** influence bushfire impact was determined onsite using an inclinometer and verified from topographic imagery to be:

- 15 - 20 degrees down slope within the hazard to the north
- 0 degrees across slope within the hazard to the south
- 0 degrees across slope within the hazard to the east
- 15 - 20 degrees down slope within the hazard to the west

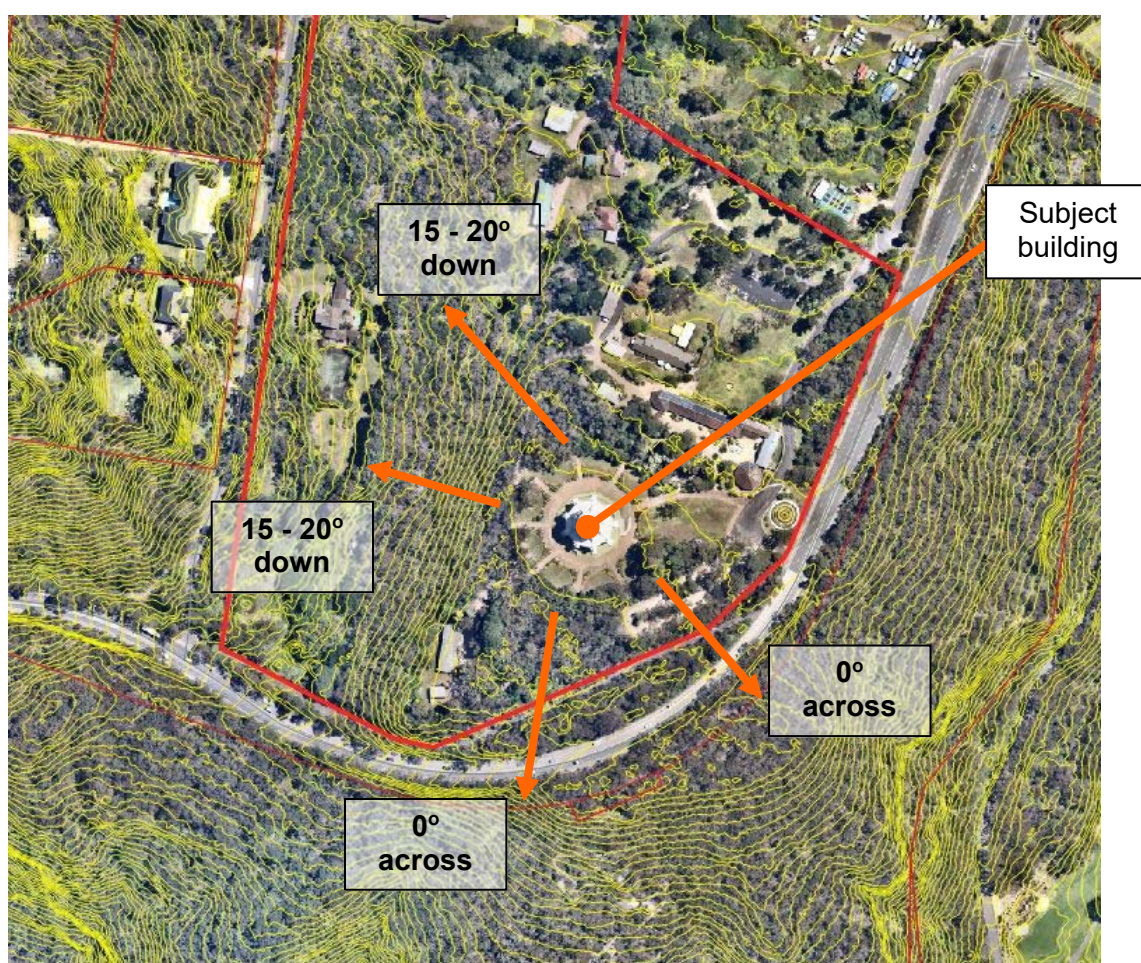


Figure 04: Extract from ELVIS - Geoscience Australia (1 metre contours)

Asset Protection Zones:

The vegetation identified as being the hazard is to the north, south, east and west within the subject property and Garigal National Park.

The available Asset Protection Zone (APZ) was measured to be >30 metres to the north, south, east and west. The APZ consists of maintained grounds within the subject property.

Fire Fighting Water Supply:

There are hydrants along this section of Mona Vale Road for the replenishment of attending fire services. The subject property has numerous tanks for the replenishment of attending fire services. The closest static water supply to the subject building is located near the entry building and has a standpipe and storz fitting and is located within the APZ.

The existing water supply is considered satisfactory for attending fire services.

Property Access:

Persons seeking to egress from the subject dwelling can do so freely along the existing road infrastructure. Fire services have free access to the property and around the subject building. The most distant external point of the proposed works will be located within 70 metres of a public road that supports the operational use of fire fighting vehicles and therefore the Access requirements detailed in section 7.4 of PBP are not applicable.

Access to the subject property is considered satisfactory.

Summary:

	North	South	East	West
Vegetation Structure	Forest	Forest	Forest	Forest
Slope	15 - 20 degrees down	0 degrees across	0 degrees across	15 - 20 degrees down
Asset Protection Zone	>30 metres	>30 metres	>30 metres	>30 metres
Significant landscape features	Maintained grounds	Maintained grounds	Maintained grounds	Maintained grounds
Threatened species	APZ Existing	APZ Existing	APZ Existing	APZ Existing
Aboriginal Relics	APZ Existing	APZ Existing	APZ Existing	APZ Existing
Bushfire Attack Level	BAL FZ	BAL 29	BAL 29	BAL FZ
Required Construction Level	BAL FZ	BAL FZ	BAL FZ	BAL FZ

The highest Bushfire Attack Level to the proposed works was determined from Table A1.12.5 of PBP to be 'BAL FZ'. The proposed stairs, ramps and landscaping walls will be constructed entirely from non-combustible materials, which satisfies the requirements of PBP and AS3959.

PBP – Development of existing SFPP facilities:

The proposal relates to an existing Class 9 building greater than 500m² and is likened to a Special Fire Protection Purpose development (approved prior to August 2002) and therefore the application can be assessed under the provisions of section 6.4 'Development of existing SFPP facilities' of PBP.

The objectives that apply to existing SFPP development and our comments are listed in the table below:

Objective	Comment
<i>provide an appropriate defensible space;</i>	The Asset Protection Zone consists of maintained land within the subject property. An appropriate defensible space is provided.
<i>site the building in a location which ensures appropriate separation from the hazard to minimise potential for material ignition;</i>	The existing APZ minimises potential for material ignition.
<i>provide a better bush fire protection outcome for existing buildings;</i>	The proposed works in our opinion will enhance the existing bushfire protections measures within the subject site. This assessment has included a recommendation to maintain the site as an APZ. In consideration of the scope of works proposed it is not considered reasonable to apply measures to the existing buildings.
<i>new buildings should be located as far from the hazard as possible and should not be extended towards or situated closer to the hazard than the existing buildings (unless they can comply with section 6.8);</i>	There are no new buildings as part of this application.
<i>ensure there is no increase in bush fire management and maintenance responsibility on adjoining land owners without their written confirmation;</i>	The proposal does not result in any increased bushfire management or maintenance on adjoining land owners.
<i>ensure building design and construction enhances the chances of occupant and building survival; and</i>	No new habitable buildings are proposed as part of this application.
<i>provide for safe emergency evacuation procedures including capacity of existing infrastructure (such as roads).</i>	The proposal includes new paths, stairs and ramps to the building. The existing road network provides an appropriate operational environment for emergency service personnel.

Recommendations

Asset Protection Zones

1. That all existing maintained grounds within the subject property (30 metres to the north, east, south and west from the building) are to 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 Section 4 of Planning for Bush Fire Protection 2019.

Note: At the time of our inspection there was no additional vegetation management required to implement the above APZ.

Construction

2. That the proposed stairs, ramps and landscaping walls shall comply with Section 3 (excluding section 3.5) and Section 9 (BAL FZ) of Australian Standard AS3959-2018 Construction of buildings in bushfire-prone areas or the relevant BAL-FZ requirements of the NASH Standard - Steel Framed Construction in Bushfire Areas (incorporating amendment A - 2015).

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. 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.

The subject property is a residential allotment within an area of similar properties. The vegetation identified as being the hazard is to the north, south, east and west within the subject property and Garigal National Park. The vegetation posing a hazard was determined to be Forest.

The available Asset Protection Zones (APZs) were measured to be >30 metres to the north, south, east and west. The APZs consist of maintained grounds within the subject property.

The highest Bushfire Attack Level to the proposed works was determined from Table A1.12.5 of PBP to be 'BAL FZ'. The proposed stairs, ramps and landscaping walls will be constructed entirely from non-combustible materials, which satisfies the requirements of PBP and AS3959.

The existing access and water provisions are considered satisfactory for attending fire services.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is my opinion that the recommendations made herein will provide a reasonable level of bushfire protection to the subject development.

We are therefore in support of the proposed Development Application.

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

Prepared by
Building Code & Bushfire Hazard Solutions



Duncan Armour
Bushfire Consultant

Reviewed and endorsed by
Building Code & Bushfire Hazard Solutions



Andrew Muirhead
Bushfire Consultant
Graduate Certificate in Bushfire Protection
Diploma of Engineering.
FPA Australia BPAD Level 2 Accredited Practitioner
BPAD Accreditation No. BPAD46966



Quote from Planning for Bush Fire Protection 2019, 'While the material within this publication is current at the time of writing changes in circumstances after the time of publication may impact on the accuracy of the material. Individuals are responsible for ensuring they have the most current version of this publication.'

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Similarly the interpretations and opinions provided by Building Code and Bushfire Hazard Solutions in regard to bushfire design, protection and mitigation are also given in the same good faith.



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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:	173 Mona Vale Road, Ingleside
DESCRIPTION OF PROPOSAL:	Stairs, ramps and landscaping
PLAN REFERENCE: (relied upon in report preparation)	Site Plan prepared by Urbis, Project No P0045720, Revision 2, Date 02/08/2023
BAL RATING:	BAL FZ
BUSHFIRE ASSESSMENT REPORT REFERENCE:	240055
REPORT DATE	22 nd August 2023
CERTIFICATION NO/ACCREDITED SCHEME	BPAD46966

I, Alvin, 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: Alvin Date: 22nd August 2023

