



NSW RURAL FIRE SERVICE

Northern Beaches Council
PO Box 882
MONA VALE NSW 1660

Your reference: CNR-34923 DA2021/2228
Our reference: DA20220204002367-Original-1

ATTENTION: Northern Beaches Council

Date: Thursday 17 February 2022

Dear Sir/Madam,

Development Application

s4.14 - Other - Single Dwelling - Alterations & Additions

323 McCarrs Creek Road Terrey Hills NSW 2084, 369//DP752017, 425//DP752017

I refer to your correspondence dated 03/02/2022 seeking advice regarding bush fire protection for the above Development Application in accordance with section 4.14 of the *Environmental Planning and Assessment Act 1979*.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted and provides the following recommended conditions:

Asset Protection Zones

Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

1. From the start of building works, the property around the dwelling and home office/studio must be managed as an inner protection area (IPA) for a distance of 10 metres excepting where limited by property boundaries, in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*. When establishing and maintaining an IPA the following requirements apply:

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2m above the ground;
- tree canopies should be separated by 2 to 5m;
- preference should be given to smooth barked and evergreen trees;
- large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover;
- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.

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- 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.

Construction Standards

Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

2. New construction must 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). New construction must also comply with the construction requirements in Section 7.5 of *Planning for Bush Fire Protection 2019*.

3. The existing buildings where no new works are proposed must be upgraded to improve ember protection by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any sub floor areas, openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.

Access – Property Access

Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

4. Property access roads must comply with the following requirements of Table 7.4a of *Planning for Bush Fire Protection 2019*:

- property access roads are two-wheel drive, allweather 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.
- 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 of *Planning for Bush Fire Protection 2019*;
- 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; and,
- maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads.

Note: Some short constrictions in the access may be accepted where they are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. The gradients applicable to public roads also apply to community style development property access roads in addition to the above.

Water and Utility Services

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

5. The provision of water, electricity and gas must comply the following in accordance with Table 7.4a of *Planning for Bush Fire Protection 2019*:

- A 20,000 litre minimum capacity static water supply (SWS) must be provided on site;
- a connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure;
- 65mm Storz fitting with a ball valve is fitted to the outlet;
- ball valve and pipes are adequate for water flow and are metal;
- supply pipes from SWS to ball valve have the same bore size to ensure flow volume;
- underground tanks have an access hole of 200mm and a hardened ground surface for truck access is supplied within 4m to allow tankers to refill direct from the tank;
- above-ground tanks are manufactured from concrete or metal;
- raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F of AS 3959);
- unobstructed access can be provided at all times;
- underground tanks are clearly marked;
- all exposed water pipes external to the building are metal, including any fittings;
- where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; any hose and reel for firefighting connected to the pump shall be 19mm internal diameter;
- where practicable, electrical transmission lines are underground;
- where overhead, electrical transmission lines are proposed as follows:
 - lines are installed with short pole spacing (30m), 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 ISSC3 Guideline for Managing Vegetation Near Power Lines.
- 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.

Landscaping Assessment

Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

6. Landscaping within the required asset protection zone must comply with Appendix 4 of *Planning for Bush Fire Protection 2019*. In this regard, the following principles are to be incorporated:

- A minimum 1 metre wide area, suitable for pedestrian traffic, must be provided around the immediate curtilage of the building;
- Planting is limited in the immediate vicinity of the building;
- Planting does not provide a continuous canopy to the building (i.e. trees or shrubs are isolated or located in small clusters);
- Landscape species are chosen to ensure tree canopy cover is less than 15% (IPA), and less than 30% (OPA) at maturity and trees do not touch or overhang buildings;
- Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies;
- Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown;
- Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter);
- Avoid climbing species to walls and pergolas;
- Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building;
- Locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building; and
- Low flammability vegetation species are used.

General Advice - Consent Authority to Note

The NSW RFS recognises that the site is constrained and that the proposed development falls within the Flame Zone. Flame Zone development is high risk development; consequently, in situations such as this, the NSW RFS seeks to improve the overall fire safety of the existing development. This requires greater emphasis on construction standards, landscaping, siting, and vegetation management practices to ensure improved levels of protection are afforded to the development, its occupants and fire fighters. The Service has undertaken a merit based assessment of the proposal and provides the above advice in accordance with *Planning for Bush Fire Protection 2019*.

For any queries regarding this correspondence, please contact Marc Ellwood on 1300 NSW RFS.

Yours sincerely,

Kalpana Varghese
**Supervisor Development Assessment & Plan
Built & Natural Environment**