



Member of the Fire Protection Association of Australia

# Lot 102, DP1268632, 68, Lockwood Road Erskine Park, NSW, 2759.

Friday, April 8, 2022

Prepared and certified by:	Matthew Willis BPAD – level 3 Certified Practitioner Certification No: BPD-PA 09337	Mathin-	Plan ref. 14/7/2021
Can this proposal comply with AS3959-2009 (inc PBP addendum 3)?		Bushfire construction requirements do not apply.	
What is the recommended AS 3959-2009 level of compliance?		N/A	
Is referral to the RFS required?		No.	

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# **1 GENERAL**

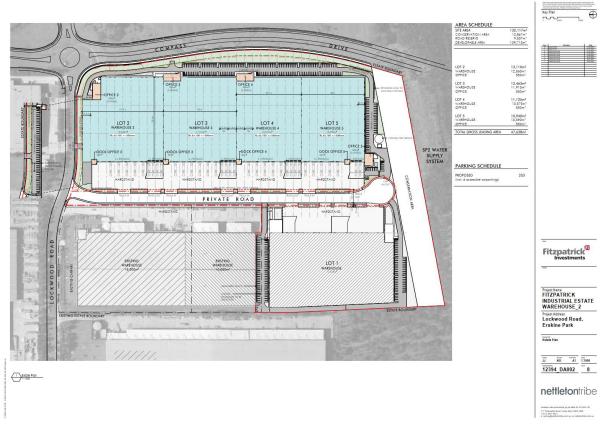
Bushfire Planning Services has been requested to supply a bushfire compliance report on lot 102, DP1268632, 68, Lockwood Road Erskine Park.

This proposal is for the construction of 4 large adjoining warehouses with a total floor area in excess of 47,000m2, see attached plans for details. The building is classified as multi-use containing Class 5 (Office) and Class 7b (Warehouse) buildings.

The subject lot is a large, sprawling lot. The development area of this proposal is situated on the south-western corner of Compass Drive and Lockwood Road in a growing industrial area of Erskine Park.

These buildings are the second stage of a staged development that is to be undertaken on the subject lot. Stage one is for a large, multi-use industrial building within the same area of land slightly to the west of this proposal, the Development Application for this building has already been submitted.

New construction will incorporate all the Fire Safety Features of the NCC that are associated with the class of structure.



The National Construction Code (NCC) class for the proposed buildings does not include any class 1, 2, 3 or 4 structures, the building does not contain any form of residential accommodation or Special Fire Protection Development buildings.

The NCC 2019 calls up AS 3959 2018 as the deemed to satisfy construction requirements for some classes of buildings in bushfire prone areas.

- Volume 1 of the NCC refers to a Class 2 or Class 3 buildings, or a class 10a building or deck associated<sup>1</sup> with a class 2 or 3 building in a designated bushfire prone area.
- Volume 2 refers to class 1 and 10a (class 10 building or deck associated with a class 1 building).

As the proposal does not include any Class 1, 2, 3 or a class 10 that is associated with a class 1 building, AS 3959 2009 does not apply to this development.

The Rural Fire Service document Planning for Bushfire Protection 2018 states:

8.3.1 Buildings of Class 5 to 8 under the National Construction Code (NCC)

Under the building classification system within the NCC, Class 5 to 8 buildings include offices, shops, factories, warehouses, public car parks and other commercial and industrial facilities. Class 10 includes non-habitable buildings and structures such as garages, carports, swimming pools and fences.

The NCC does not provide for any bush fire specific performance requirements for these particular classes of building. As such AS 3959 and the NASH Standard are not considered as a set of 'deemed to satisfy' provisions, however compliance with AS 3959 and NASH should be considered when meeting the aims and objectives of PBP.

Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water and services, and emergency and evacuation planning:

- to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation;
- to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building;
- to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development; and
- consideration of storage of hazardous materials away from the hazard wherever possible.

The general fire safety construction provisions (of the NCC) are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.

Where a mixed use development is proposed to have a SFPP component, an appropriate mix of BPMs should be applied consistent with the SFPP provisions in Chapter 6.

The following table outlines the previous objectives and the level of compliance of this proposal with those objectives:

<sup>&</sup>lt;sup>1</sup> "associated" in this instance means within 6m.

Objective	Opinion	Compliant?
To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation.	The estate containing the site is new and has been designed in accordance with the appropriate access requirements.	Reasonably assumed.
To provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.	All facilities will be in accordance with the NCC requirements.	Yes.
To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development; and	A Bushfire Survival Plan forms part of the recommendations of this assessment.	Achievable.
Consideration of storage of hazardous materials away from the hazard wherever possible.	It is unknown what if any hazardous materials will be stored in the new building.	Achievable if required.

Although AS 3959 2018 is not considered applicable for this type of building and Planning for Bushfire Protection 2018 also states that there are no specific construction requirements, Planning for Bushfire Protection 2018 goes on to state "all development on bushfire prone land must satisfy the aim and objectives of Planning for Bushfire Protection".

The aim of PBP is stated as follows;

The aim of Planning for Bushfire Protection is to provide for the protection of human life and minimise impacts on property from the threat of Bushfire, while having due regard to development potential, site characteristics and protecting the environment."

The objectives of Planning for Bushfire Protection are as follows;

- > Afford occupants of any building adequate protection from exposure to a bushfire;
- Provide for a defendable space to be located around buildings;
- Provide appropriate separation between a hazard and buildings which, in combination with other measures, minimises material ignition;
- Ensure that appropriate operational access and egress for emergency service personnel and residents is available;
- > provide for ongoing management and maintenance of bushfire protection measures;
- > ensure that utility services are adequate to meet the needs of fire fighters.

The following table outlines the relevant objectives, the method of compliance/noncompliance and opinion of compliance or non-compliance with those objectives;

PBP specific objectives	<u>Opinion</u>	<u>Compliant?</u>
Afford occupants of any building adequate protection from exposure to a bush fire;	The building will be fire rated in accordance with NCC requirements and the recommended emergency evacuation plan should recommend that any occupants are evacuated before exposure to a bushfire.	Yes.
Provide for a defendable space to be located around buildings;	The proposal incorporates defendable space.	Yes.
Provide appropriate separation between a hazard and buildings which, in combination with other measures, minimises material ignition	The only hazard to this proposal is from a small "Conservation Area" to the south, this is a relatively insignificant hazard. Defendable space is available between to building and the vegetation to the south. The external fabric of the building is to be of concrete and steel, both non-combustible materials. If a fire was to occur in the low threat vegetation to the south, it is expected that the construction materials and construction methods used in the building will minimise material ignition.	Reasonably assumed.
Ensure that appropriate operational access and egress for emergency service personnel and residents is available.	Access is considered appropriate.	Yes.
Provide for ongoing management and maintenance of bushfire protection measures.	Normal property maintenance can provide this.	Yes.
Ensure that utility services are adequate to meet the needs of fire fighters.	All facilities will be in accordance with the BCA requirements.	Yes.

# **2** Specific Objectives for Infill.

In addition to the Aims and Objectives of PBP the Specific Objectives for Infill developments need to be considered.

Infill developments are defined as "..... to the development of land by the direction of, alteration or addition to, a dwelling which does not require the spatial extension of services including public roads, electricity, water or sewerage and is within an existing lot".

#### The objectives are;

- provide a defendable space to enable unimpeded access for firefighting around all elevations of the building;
- provide better bushfire outcomes on a redevelopment site than currently exists, commensurate with the scale of works proposed;
- > design and construct buildings commensurate with the bushfire risk;
- > provide access, services and landscaping to aid firefighting operations;
- > provide access, services and landscaping to aid firefighting operations; and
- increase the level of bushfire protection to existing dwellings based on the scale of the

The following table outlines the objectives and the proposals level of compliance with those objectives.

Specific Objectives for Infill	<u>Opinion</u>	<u>Compliant</u>
Provide a defendable space to enable unimpeded access for firefighting around all elevations of the building.	The proposal incorporates defendable space.	Yes.
Provide better bushfire outcomes on a redevelopment site than currently exists, commensurate with the scale of works proposed.	This is not a redevelopment site.	N/A.
Design and construct buildings commensurate with the bushfire risk	The buildings will be constructed in accordance with the NCC and incorporate the general fire safety construction provisions of the NCC which are taken as acceptable solutions under Planning for Bushfire Protection 2018.	Yes.
Provide access, services and landscaping to aid firefighting operations.	Access is considered appropriate.	Yes.

Not impose an increased bushfire management and maintenance responsibility on adjoining landowners.	This proposal does not increase any neighbours' responsibilities.	Yes.
Increase the level of bushfire protection to existing dwellings based on the scale of the	There are no dwellings proposed as part of this proposal.	N/A.

### **3 NCC COMPLIANCE.**

The proposal is required to comply with the fire safety provisions of the NCC. The NCC compliance report for the proposal is not available currently and will be completed at the CC stage.

Previously, the RFS has asked for NCC fire safety documentation before on similar projects to this before recommendations are provided to council.

As this documentation is not yet available it is suggested that, if this proposal if referred to the RFS, that the RFS make it a condition of consent that the fire safety provisions of the NCC are met as part of the construction approval process.

#### **4 RECOMMENDATIONS**

- 1. The fire safety features of the NCC that are applicable to the class of building are to be included in the construction of the building.
- 2. A Bushfire Survival Plan is to be formulated for the site. <u>https://www.rfs.nsw.gov.au/\_\_data/assets/pdf\_file/0003/36597/GetReadyforaBus</u> <u>hFire.pdf</u>

## **5** CONCLUSION.

The subject lot is covered by the local councils Bushfire Prone Land Map and is therefore considered to be bushfire prone. (Appendix 1)

This proposal falls outside the requirements for specific bushfire safety construction standards as outlined in the NCC, AS-3969 and Planning for Bushfire Protection and requires only the general fire safety provisions of the NCC that are associated with that class of structure.

Planning for Bushfire Protection requires that this proposal complies with the aims and objectives of that document and the specific objectives for infill development.

It is considered that this proposal does comply with the intent of the relevant aims and objectives of Planning for Bushfire Protection and the relevant specific objectives for infill.

Bushfires are affected by many external influences such as climactic conditions, vegetation type, moisture content of the fuel, slope of the land and human intervention to name a few and are difficult to predict.

This report does not intend to provide a guarantee that the subject property will survive if a bushfire should impact the surrounding area. The purpose of this report is to show the developments level of compliance or in some cases non-compliance with the New South Wales legislation regarding building in bushfire prone areas.

Where non-compliance is found measures will be suggested that should make the building less susceptible to the various attack mechanisms of a bushfire and comply with the performance requirements of the Building Code of Australia.

The opinions expressed in this report are based on the writers experience and interpretation of the relevant guidelines and standards. Notwithstanding the above, these guidelines and standards are open to interpretation. All care has been taken to ensure that the opinions expressed in this report are consistent with past successful outcomes.

Some of the information used in the compilation of this assessment has been provided by the proponent or the proponent's representatives. While we believe this information to be true and have accepted the information in good faith this company or its representatives will not accept any responsibility if the provided information is determined to be incorrect.

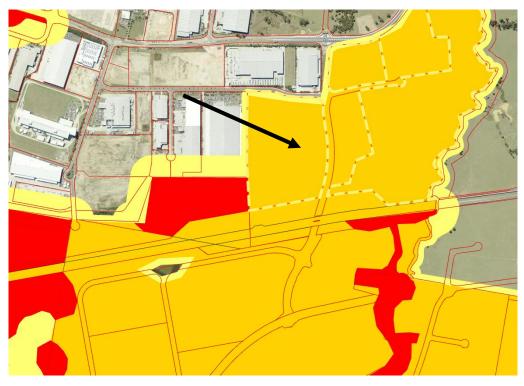
If any further clarification is required for this report, please do not hesitate to contact me using the details above.

Yours Sincerely

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Matthew Willis Grad Dip Planning for Bushfire Prone Areas Bushfire Planning Services Pty Limited.

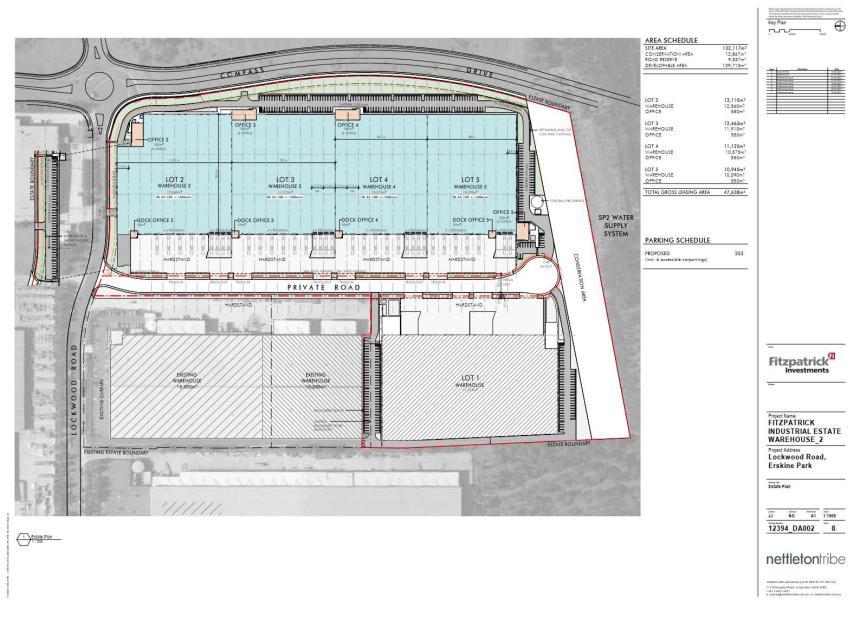
# 6 APPENDIX 1, BUSHFIRE PRONE LAND MAP, AERIAL PHOTO AND PLANS.



Map 1 the black arrow on the councils Bushfire Prone Land map indicates the location of the subject lot.



*Photo 1. The yellow arrow on the above aerial photograph indicates the approximate position of the new building* 



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