

Bushfire Assessment Report

Proposed:
**Multi-storey Residential
Buildings**

At:
**84 Tallawong Road,
Rouse Hill**

Reference Number: 260036

30 October 2025



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Version Control				
Version	Date	Author	Reviewed by	Details
1	26/08/2025	Andrew Muirhead	Stuart McMonnies	Final Report
2	24/09/2025	Andrew Muirhead		Update Report
3	20/10/2025	Andrew Muirhead		Minor Amendments
4	24/10/2025	Andrew Muirhead		Minor Amendments
5	30/10/2025	Andrew Muirhead		Project Description Update

List of Abbreviations:

APZ	Asset Protection Zone
AS3959	Australian Standard 3959 'Construction of buildings in bushfire-prone areas' – 2018
BAL	Bushfire Attack Level
BPMs	Bushfire Protection Measures
BPLM	Bushfire Prone Land Map
Council	Blacktown City Council
ELVIS	Elevation and Depth Foundation Spatial Data
EP&A Act	<i>Environmental Planning and Assessment Act - 1979</i>
FRNSW	Fire and Rescue NSW
IPA	Inner Protection Area
NASH	National Association of Steel-framed Housing
NCC	National Construction Code
NP	National Park
NSP	Neighbourhood Safer Place
OPA	Outer Protection Area
PBP	<i>Planning for Bush Fire Protection – 2019</i>
ROW	Right of Way
RF Act	<i>Rural Fires Act - 1997</i>
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SSD	State Significant Development
SWS	Static Water Supply

Executive Summary:

This Bush Fire Assessment Report has been prepared by Building Code and Bushfire Hazard Solution P/L. It accompanies a State Significant Development Application (**SSDA**) for residential development with in-fill affordable housing at 84 Tallawong Road, Rouse Hill (**the site**). This SSDA seeks consent to amend three existing consents (SPP-17-00031, SPP-17-00032, and SPP-17-00033) for residential development comprising 1 shop-top housing building and 5 residential flat buildings with a combined total of 411 units (including 70 affordable housing units).

The legal description of the site is Lot 63 in Deposited Plan 30186.

This report has been prepared to address the Secretary's Environmental Assessment Requirements (**SEARs**) issued for the project (SSD-80287510).

There is a more detailed project description within the EIS.

The Minister for Planning, or their delegate, is the consent authority for the SSDA and this application has been lodged with the NSW Department of Planning, Housing and Infrastructure (**NSW DPHI**) for assessment.

In this instance the site is depicted on Blacktown City Council's Bushfire Prone Land Map (**BPLM**) as containing designated Vegetation Buffer. The site is therefore considered 'bushfire prone land'.

In relation to this application one of the key issues identified in the Secretary's Environmental Assessment Requirements (SEARs) (SSD-80287510) is an assessment of potential hazards and risks, which lists bushfire as a consideration (Item 20). Therefore, this assessment details proposed bush fire protection measures and demonstrates compliance with *Planning for Bush Fire Protection* 2019 (PBP).

The proposal has therefore been assessed against the aim and objectives detailed in Chapter 1 'Introduction' and the specific objectives and bushfire protection measures detailed in Chapter 5 'Residential and Rural Subdivision', Chapter 7 'Residential Infill Development' and Chapter 8 'Other Development' of PBP.

The vegetation identified as posing a hazard was found to be located to the northeast, southeast and southwest of the subject property within neighbouring allotments.

For the purpose of the Planning for Bush Fire Protection the vegetation posing a hazard to the northeast has been determined to be Woodland and the vegetation to the southeast and southwest has been determined to be Grasslands.

Sections 5.4 and 7.4 'Bush fire protection measures' of PBP outlines the specific Bushfire Protection Measures (BPMs) applicable to residential developments, including APZs, Access and Services.

Consideration has also been given to section 8.2.2 'Multi-storey residential development' of PBP.

APZs for new residential subdivisions are determined from Table A1.12.2 of PBP or bushfire design modelling achieving a radiant heat impact of no more than 29kW/m² at the closest point of the indicative building envelope.

In this instance the minimum required APZs were determined from Table A1.12.2 of PBP to be 12 metres from the bushfire hazard to the northeast and 12 metres from the grassland hazards to the southeast and southwest.

The proposed buildings in Lot 1 have an APZ of >172 metres from the bushfire hazard to the northeast, >94 metres from the grassland hazard to the southeast and >24 metres to the grassland hazard to the southwest exceeding the minimum requirements under PBP.

The proposed buildings in Lot 2 have an APZ of >91 metres from the bushfire hazard to the northeast, >94 metres from the grassland hazard to the southeast and >103 metres to the grassland hazard to the southwest exceeding the minimum requirements under PBP.

The proposed buildings in Lot 3 have an APZ of 12 metres from the bushfire hazard to the northeast, >94 metres from the grassland hazard to the southeast and >182 metres to the grassland hazard to the southwest exceeding the minimum requirements under PBP.

All grounds within the subject property not built upon 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'.

The highest Bushfire Attack Level to the proposed buildings within Lot 1 was determined from Table A1.12.5 of PBP to be BAL 19. The proposed buildings within Lot 1 shall comply sections 3 and 6 (BAL 19) under AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

The highest Bushfire Attack Level to the proposed buildings within Lot 2 was determined from Table A1.12.5 of PBP to be BAL 12.5. The proposed buildings within Lot 2 shall comply sections 3 and 5 (BAL 12.5) under AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

The highest Bushfire Attack Level to the proposed buildings within Lot 3 was determined from Table A1.12.5 of PBP to be BAL 29. The proposed buildings within Lot 3 shall comply sections 3 and 7 (BAL 29) under AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

The subject property has street frontage to Tallawong Road to the southwest. The proposed roads provide a loop road around the entire site.

The proposed road along the northeast boundary shall be a minimum of 8 metres wide meeting the perimeter road width requirements. The other roads will have a total road width of approximately 11 metres exceeding the non-perimeter road width requirements within PBP.

The proposal includes an extension of the hydrant network throughout the subject site. The proposed hydrant sizing, spacing and pressures are to comply with AS2419.1-2021.

It is our opinion the proposal can satisfy all relevant specifications and requirements of *Planning for Bush Fire Protection 2019*.

1.0 Introduction

This Bush Fire Assessment Report has been prepared by Building Code and Bushfire Hazard Solution P/L. It accompanies an Environmental Impact Statement (EIS) in support of a State Significant Development Application for residential development with in-fill affordable housing at 84 Tallawong Road, Rouse Hill (the site).

This SSDA seeks modification of existing consents related to the site (SPP-17-00031, SPP-17-00032, and SPP-17-00033) in accordance with the consent authority's powers under s4.17(1)(b) and (5) of the *Environmental Planning and Assessment Act 1979*. Those powers enable a consent authority to amend conditions in existing consents as part of the approval of a fresh development application including allowing substitution of plan references in conditions.

More particularly this SSDA seeks consent for an additional 78 dwellings (including 70 affordable housing units) and 21 car spaces to deliver a total of 411 apartments and 526 car spaces within the development of 1 shop-top housing building and 5 residential flat buildings consistent with the infill affordable housing provisions of Chapter 2, Part 2, Div. 1 of *State Environmental Planning Policy (Housing) 2021*.

There is a more detailed project description within the Environmental Impact Statement.

In this instance the subject site is depicted on Council's Bushfire Prone Land Map as containing the Vegetation Buffer. The subject site is therefore considered 'bushfire prone land'.

In relation to this application one of the key issues identified in the Secretary's Environmental Assessment Requirements (SEARs) (SSD-80287510) is an assessment of potential hazards and risks, which lists bushfire as a consideration (Item 20). Therefore, this assessment details proposed bush fire protection measures and demonstrates compliance with *Planning for Bush Fire Protection 2019 (PBP)*.

As the development is on bushfire prone land this report has been prepared to address the relevant specifications and requirements as detailed in PBP.



Figure 01: Excerpt from Council's Bushfire Prone Land Map

2.0 Legislative Requirements

The site is subject to the following legislative provisions as it relates to bushfire planning and protection:

- *Environmental Planning & Assessment Act 1979*
- *Planning for Bush Fire Protection*

2.1 *Environmental Planning & Assessment Act 1979*

Section 10.3 requires councils, where a Bush Fire Risk Management Plan applies, to record a bush fire prone land map after consulting with the Commissioner of the NSW Rural Fire Service (NSW RFS). The Commissioner will designate lands to be bush fire prone within an area and, when satisfied that the lands have been recorded on a map, certify the map as the Bush Fire Prone Land map.

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

As the proposal is subject to Part 4.7 of the Act section 100B of the *Rural Fires Act 1997* does not apply in accordance with s4.41. This means that the proposed development does not require authorization in respect of bush fire safety.

In relation to this application one of the key issues identified in the Secretary's Environmental Assessment Requirements (SEARs) is an assessment of potential hazards and risks, which lists bushfire as a consideration. Therefore, this assessment details proposed bush fire protection measures and demonstrates compliance with *Planning for Bush Fire Protection 2019* (PBP).

2.2 *Planning for Bush Fire Protection*

As the subject site is identified as being bushfire prone and the proposed development involves construction of multistorey dwellings buildings the proposal is subject to the application of the relevant specifications and requirements of *Planning for Bush Fire Protection*.

The proposal is required to demonstrate that it achieves compliance with the following Chapters of PBP:

- Chapter 1 - Aim and Objectives
- Chapter 5 - Residential and Rural Subdivision
- Chapter 7 - Residential Infill Development
- Chapter 8 – Other Development

2.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide an independent bushfire assessment of the subject site and surrounding area and to determine if the State Significant Development will comply with the relevant specifications and requirements of *Planning for Bush Fire Protection 2019*.

This report specifically addresses the Bush Fire Risk as identified in the issued Secretary's Environmental Assessment Requirements (SEARs) dated 26 March 2025.

3.0 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.

4.0 Aerial view & Masterplan

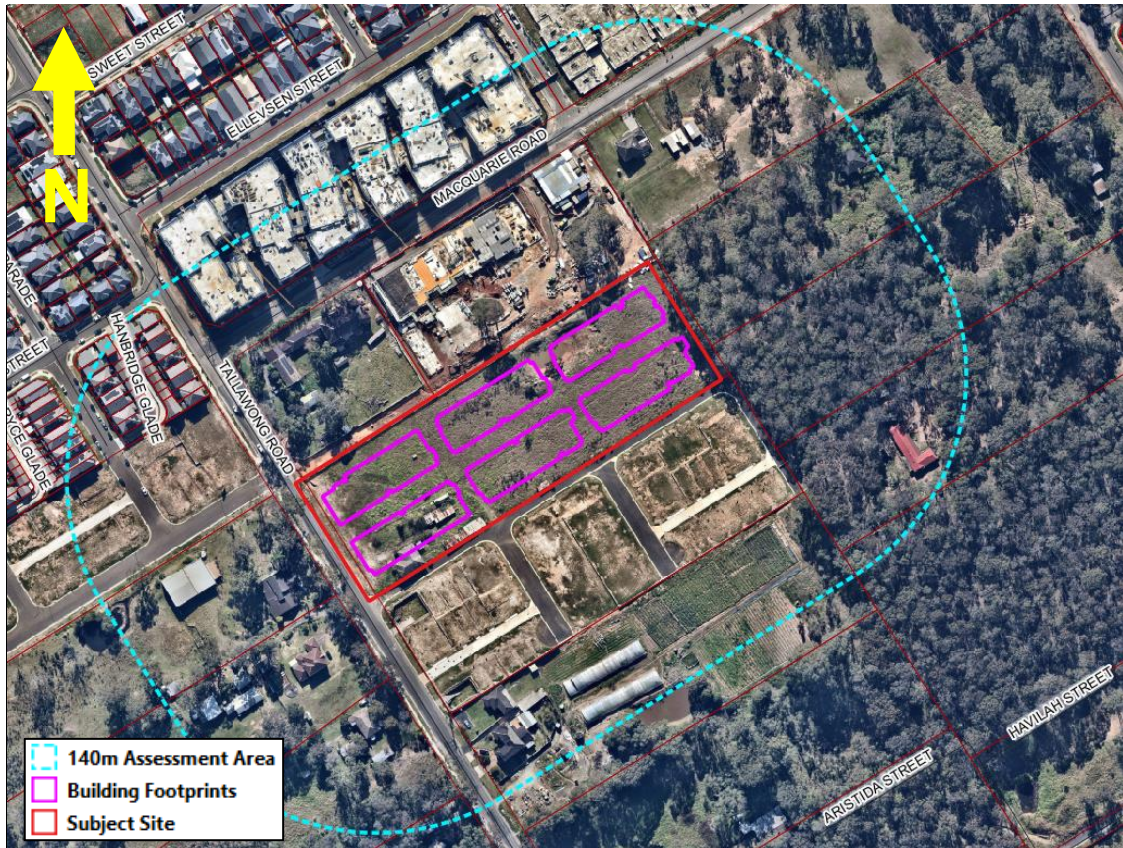
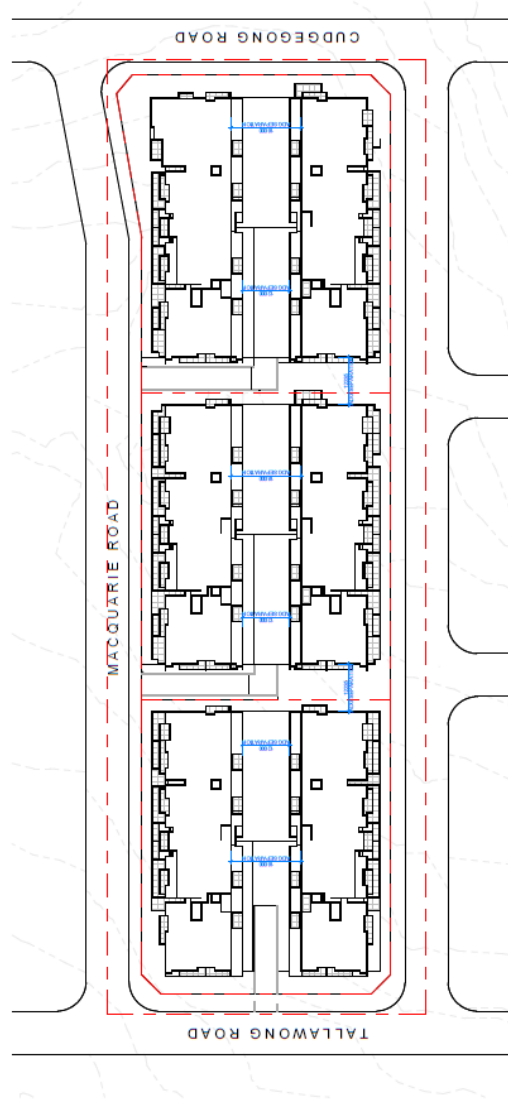


Figure 02: Aerial view of the subject site
Courtesy Nearmaps



REVISION: NO. DATE DESCRIPTION	LEGEND: DATE: 11/11/2018	PROJECT: 8402018 84 Tallawong Road CLIENT: LK GROUP	DRAWING TITLE: SITE PLAN	ARCHITECT: PLACE S T U D I O 11/11/2018 11/11/2018 11/11/2018
SHEET NUMBER: SSDA.00.0100		SHEET NUMBER: SSDA.00.0100		REVISION: DATE: 11/11/2018

Figure 03: Extract of the proposed Masterplan

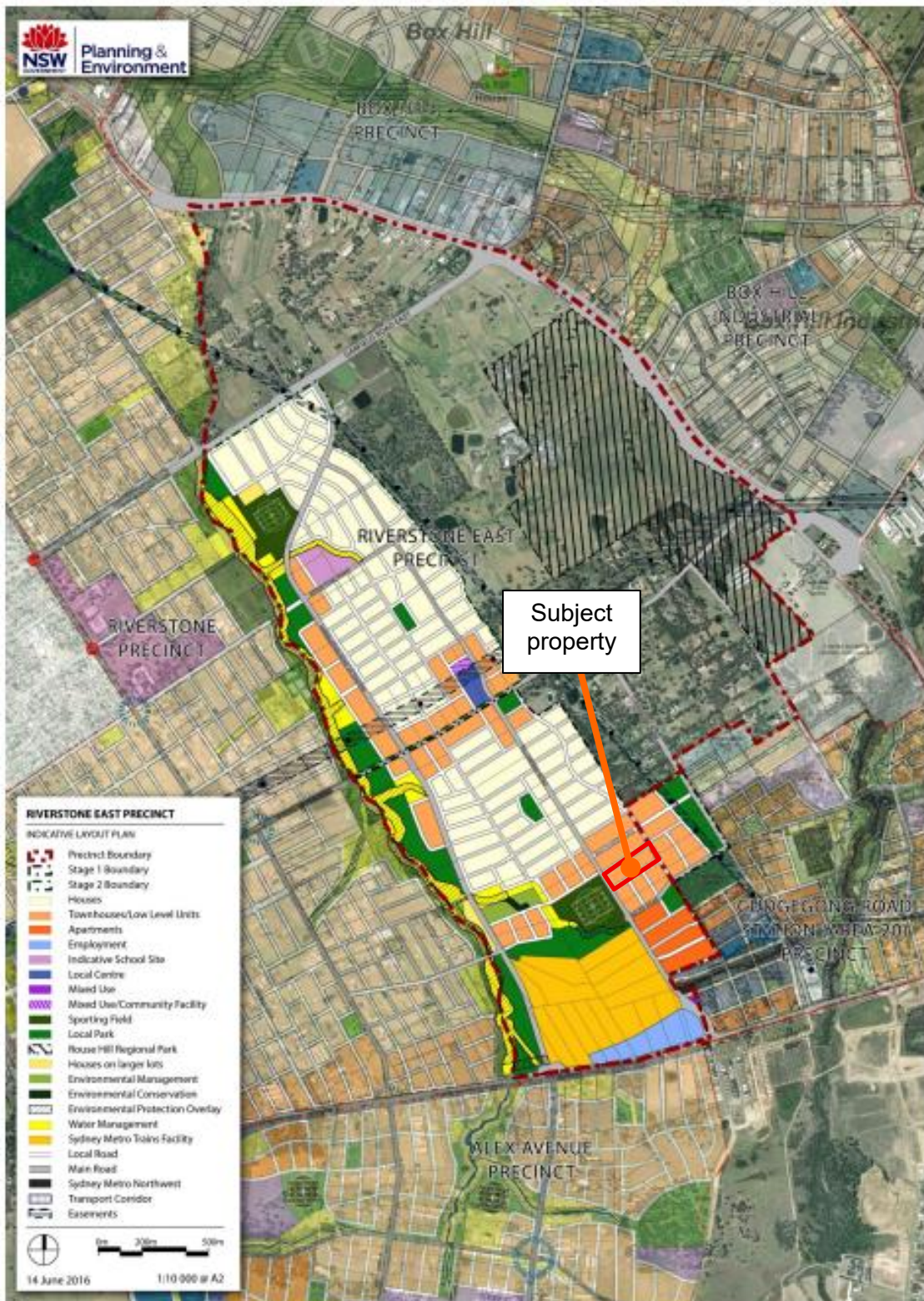


Figure 2 - Riverstone East Precinct

Figure 04: Indicative Layout Plan

5.0 Site Assessment

A detailed site inspection has been undertaken of the subject site by a representative of Building Code and Bushfire Hazard Solutions PL. In addition to the collected site data this assessment has relied on:

- 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 (Vegetation NSW)

5.01 Location

The subject site comprises of one (1) existing allotment known as 84 Tallawong Road, Rouse Hill (refer to Figure 02) and legally identified as Lot 63 DP 30186.

The subject site is residential zoned land (R3: Medium Density Residential) and is approximately 2 hectares in size.

The site has street frontage to Tallawong Road to the southwest, newly formed road to the southeast and abuts private allotments to the northeast and construction developments to the northwest.

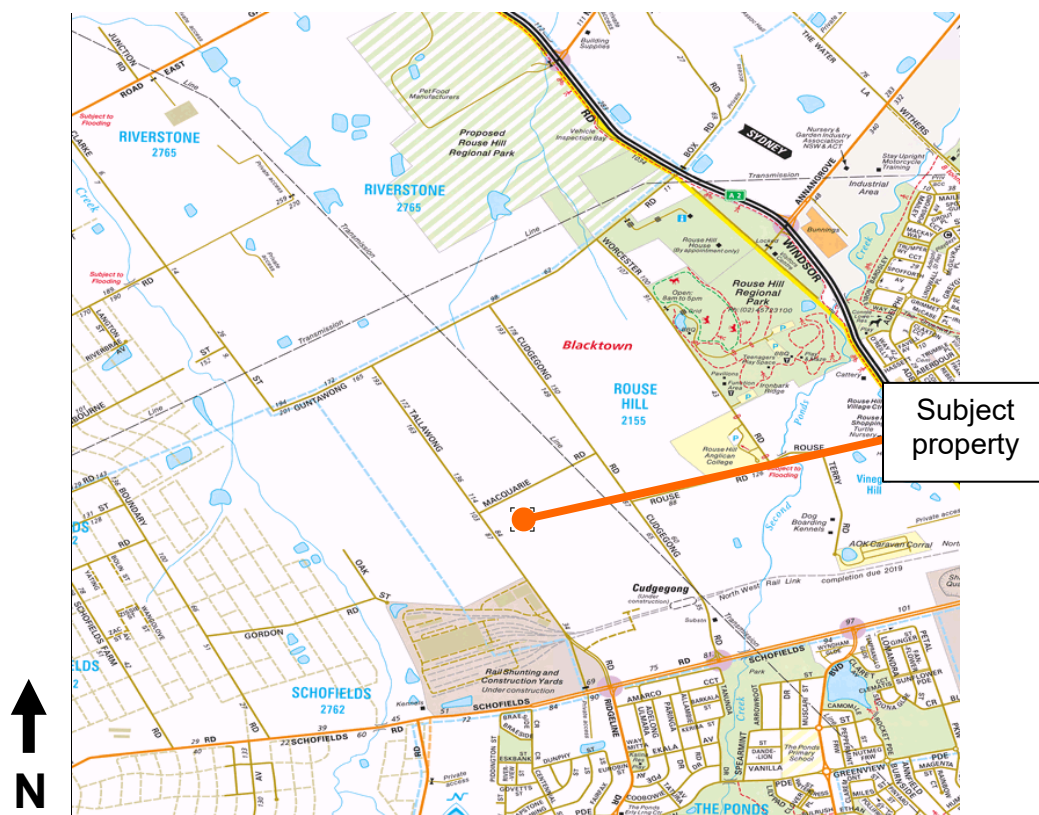


Figure 05: Extract from street-directory.com.au

5.02 Vegetation

The vegetation structure, connectivity and attributes are fundamental contributors to bushfire behaviour and its movement through the landscape.

As part of this assessment we have considered the potential bushfire runs that currently exist into the site.

In accordance with Appendix 1 'Site Assessment Methodology' of PBP we have undertaken an assessment of all vegetation formations within 140 metres of the development site for each aspect as per Keith (2004).

The vegetation identified as posing a hazard was found to be located to the northeast, southeast and southwest of the subject property within neighbouring allotments.

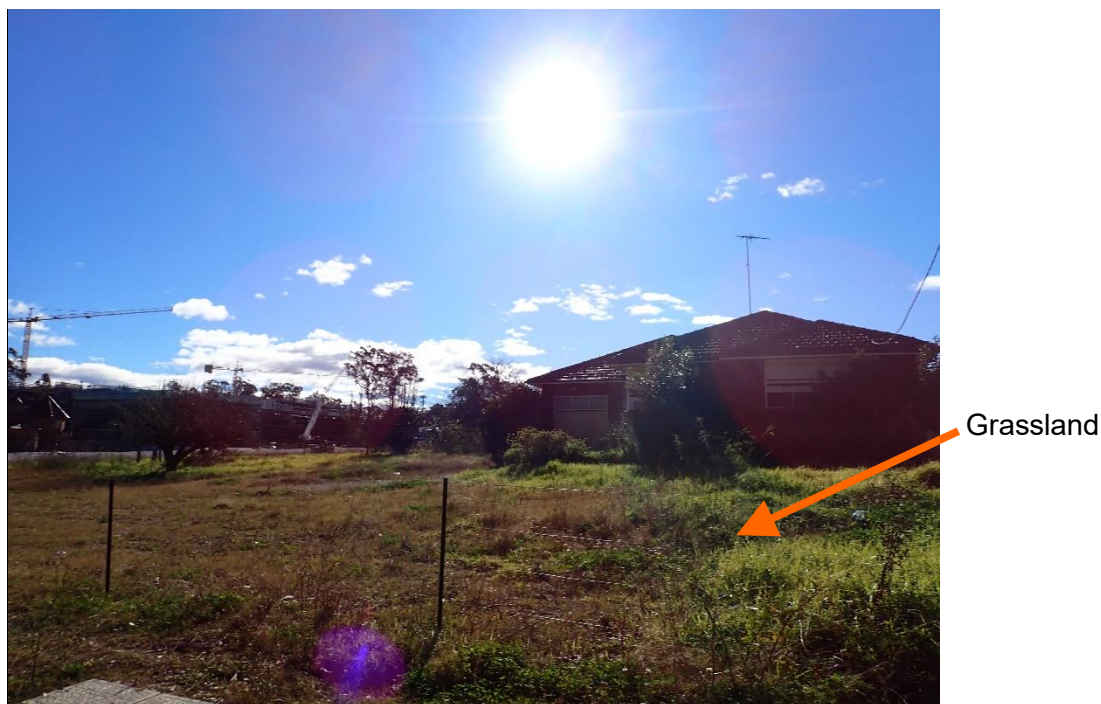
The vegetation to the northeast was found to consist of 20-30 metre tall trees with a limited understory and the vegetation to the southeast and southwest was found to consist of partly slashed and managed grasses.

The vegetation posing a hazard to the northeast was found to be mapped as 'Cumberland Shale Plains Woodland' (PCT: 3320) (Vegetation NSW), which is a Grassy Woodlands formation.

Therefore, for the purpose of the Planning for Bush Fire Protection the vegetation posing a hazard to the northeast has been determined to be Woodland and the vegetation to the southeast and southwest has been determined to be Grasslands.



Photograph 01: View into vegetation to the northeast



Photograph 02: View of the vegetation to the southwest.

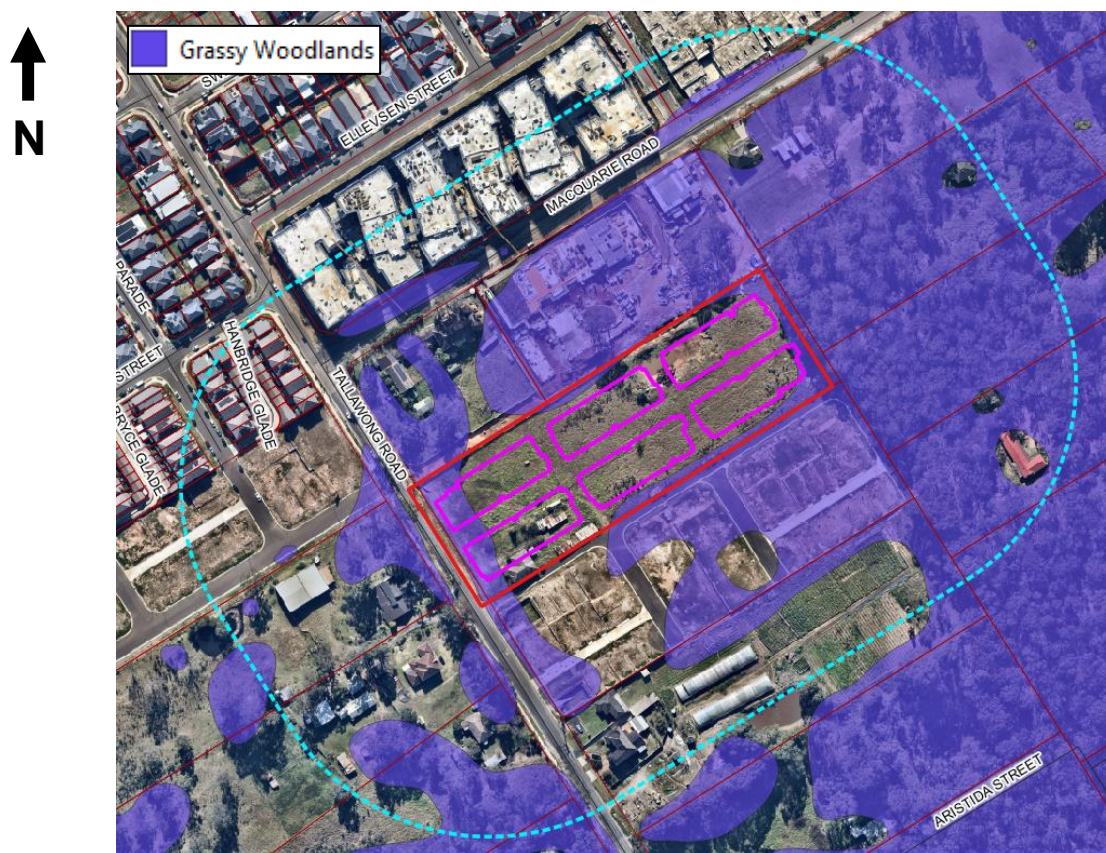


Figure 06: Aerial view of the subject area overlaid with Vegetation NSW mapping

5.03 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. It is acknowledged that there is a presence of cliffs and escarpments within the vegetation to the south which alter the effective slope.

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

- 0 degrees and up slope within the hazard to the northeast
- 0 - 5 degrees down slope within the hazard to the southeast and southwest

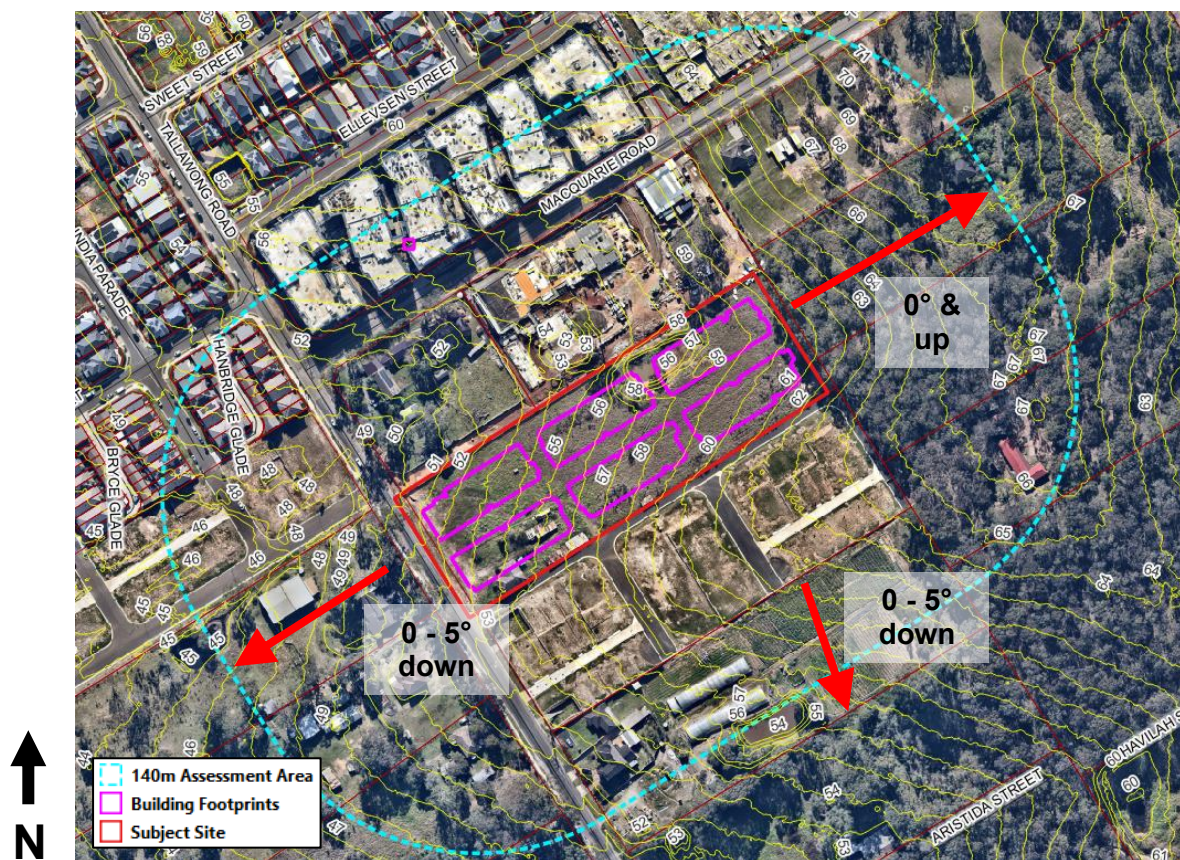


Figure 07: 1 metre LiDar contours of the subject area

5.04 Fire Weather

All development which attracts an Asset Protection Zone under PBP requires the identification of the relevant Fire Danger Index (FDI). The FDI required to be used for development assessment purposes is based on the local government boundaries, being Blacktown City Council in this instance.

In accordance with the NSW Rural Fire Service publication 'NSW Local Government Areas FDI' (2017) Blacktown City Council form part of the Greater Sydney Region Fire Weather District and attracts an FFDI of 100. As there is a presence of a grassland hazard the vegetation a Grassland Fire Danger Index of 130 as been adopted in accordance with Table 5.1.4a of PBP.

5.05 Fire History

There are areas within NSW which have significant fire history and are recognised as known fire paths. While the fire history is more commonly considered as part of strategic planning (to ensure future development is not exposed to an unacceptable risk), it is useful to consider at a Development Application phase to ensure the land is suitable for development in the context of bushfire risk.

In this instance the closest recorded wildfire was found to be located >900 metres to the northeast of the subject site (source NPWS Fire History dataset). This fire occurred in the 2014-15 fire season.

The subject site is therefore not considered to be within a known fire path.



Figure 08: Bushfire History courtesy of NPWS

6.0 Bushfire Assessment

6.01 Planning for Bush Fire Protection - 2019

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.

In this instance the subject site is depicted on Blacktown City Council's Bushfire Prone Land Map (BPLM) as containing designated the Vegetation Buffer. The subject site is therefore considered 'bushfire prone land'.

In relation to this application of the issued Secretary's Environmental Assessment Requirements (SEARs) requires a bush fire assessment that details proposed bush fire protection measures and demonstrates compliance with Planning for Bush Fire Protection 2019 (PBP).

The proposal has therefore been assessed against the aim and objectives detailed in Chapter 1 'Introduction' and the specific objectives and bushfire protection measures detailed in Chapter 5 'Residential and Rural Subdivision', Chapter 7 'Residential Infill Development' and Chapter 8 'Other Development' of PBP.

6.02 Specific Objectives

The following table lists the specific objectives for residential and rural residential subdivisions with a dwelling entitlement in accordance with section 5.2 of PBP and our comments of the proposal compliance or otherwise.

Specific Objective	Comment
<i>minimise perimeters of the subdivision exposed to the bush fire hazard (hourglass shapes, which maximise perimeters and create bottlenecks should be avoided);</i>	The only long-term hazard to the property is the Forest hazard >138 metres to the southeast in accordance with the local Indicative Layout Plan. The proposed development will not result in an increased interface with this hazard.
<i>minimise vegetated corridors that permit the passage of bush fire towards buildings;</i>	The subject site does not contain a bushfire hazard and there are no conservation areas or vegetated corridors proposed as part of this application.
<i>provide for the siting of future dwellings away from ridge-tops and steep slopes, within saddles and narrow ridge crests;</i>	The building envelope is not located on a ridge-top or on steep slopes.

Specific Objective	Comment
<i>ensure that APZs between a bush fire hazard and future dwellings are effectively designed to address the relevant bush fire attack mechanisms;</i>	<p>The proposed building envelopes were found to be located >12 metres from the identified hazard to the northeast, >94 metres from the grassland hazard to the southeast and >24 metres to the grassland hazard to the southwest exceeding the minimum required APZs.</p> <p>The separation from the identified hazards includes managed land within the subject site, public roads and management within neighbouring properties.</p>
<i>ensure the ongoing maintenance of APZs;</i>	<p>It is proposed that the subject site be managed in accordance with an APZ.</p>
<i>provide adequate access from all properties to the wider road network for residents and emergency services;</i>	<p>The proposed site will have access to Tallawong Road to the southwest and a perimeter loop road will be constructed consistent with the ILP.</p>
<i>provide access to hazard vegetation to facilitate bush fire mitigation works and fire suppression;</i>	<p>Attending fire services have comprehensive access to the identified hazards via the proposed and existing roads for hazard reduction and / or fire suppression activities.</p>
<i>ensure the provision of an adequate supply of water and other services to facilitate effective firefighting.</i>	<p>Existing in-ground hydrants are available along Tallawong road and surrounding roads for the replenishment of attending fire services.</p> <p>These hydrants are considered to be the logical water supply for fire services undertaking hazard reduction and / or fire suppression activities.</p>

6.03 Bushfire Protection Measures

Sections 5.4 and 7.4 ‘Bush fire protection measures’ of PBP outlines the specific Bushfire Protection Measures (BPMs) applicable to residential developments, including APZs, Access and Services.

Consideration has also been given to section 8.2.2 ‘Multi-storey residential development’ of PBP.

The following section addresses each BMP and the proposals compliance or otherwise.

Asset Protection Zones

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

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

APZs for new residential subdivisions are determined from Table A1.12.2 of PBP or bushfire design modelling achieving a radiant heat impact of no more than 29kW/m^2 at the closest point of the indicative building envelope.

In this instance the minimum required APZs were determined from Table A1.12.2 of PBP to be 12 metres from the bushfire hazard to the northeast and 12 metres from the grassland hazards to the southeast and southwest.

The proposed buildings in Lot 1 have an APZ of >172 metres from the bushfire hazard to the northeast, >94 metres from the grassland hazard to the southeast and >24 metres to the grassland hazard to the southwest exceeding the minimum requirements under PBP.

The proposed buildings in Lot 2 have an APZ of >91 metres from the bushfire hazard to the northeast, >94 metres from the grassland hazard to the southeast and >103 metres to the grassland hazard to the southwest exceeding the minimum requirements under PBP.

The proposed buildings in Lot 3 have an APZ of 12 metres from the bushfire hazard to the northeast, >94 metres from the grassland hazard to the southeast and >182 metres to the grassland hazard to the southwest exceeding the minimum requirements under PBP.

All grounds within the subject property not built upon 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'.

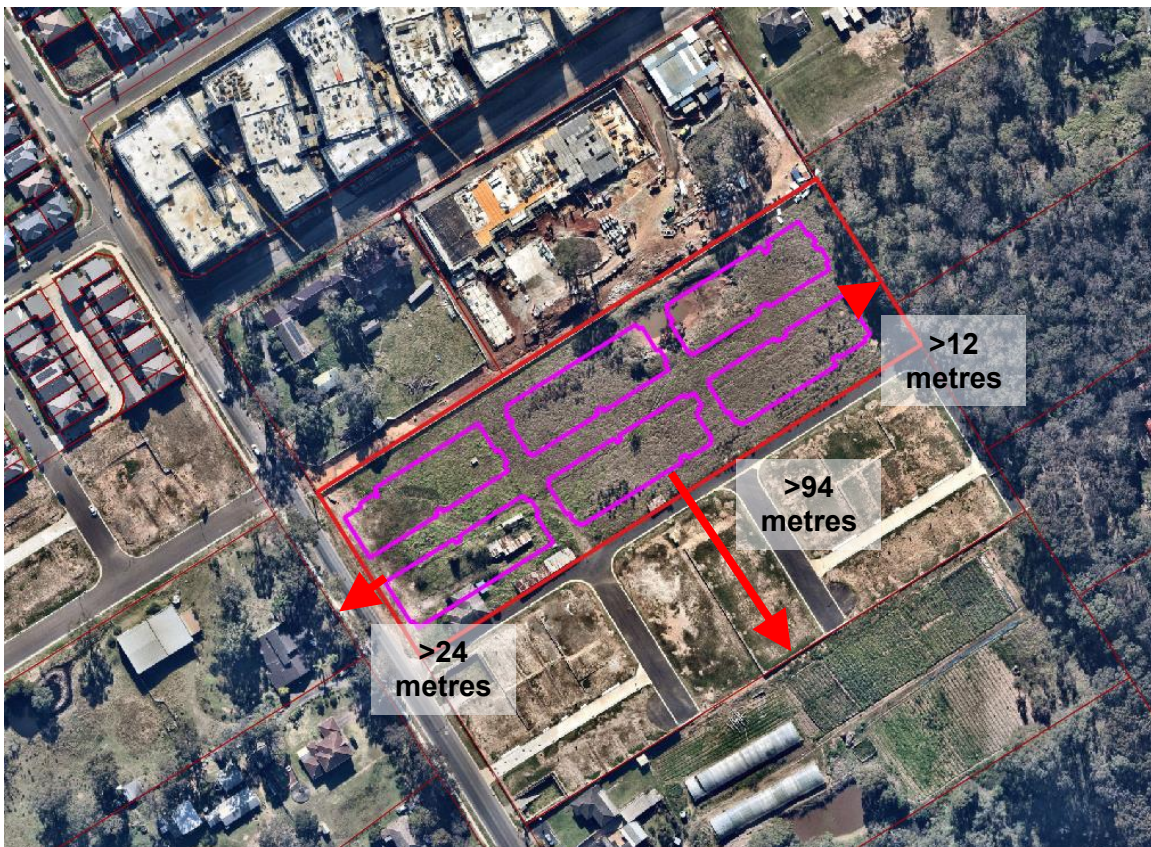


Figure 09: Aerial showing the APZs and managed land

Construction

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.

Bushfire Attack Level	Maximum radiant heat impact (kW/m ²)	Level of construction under AS3959-2018
Low		No special construction 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

Table 01: Correlation between bushfire impact and AS3959

The highest Bushfire Attack Level to the proposed buildings within Lot 1 was determined from Table A1.12.5 of PBP to be BAL 19. The proposed buildings within Lot 1 shall comply sections 3 and 6 (BAL 19) under AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

The highest Bushfire Attack Level to the proposed buildings within Lot 2 was determined from Table A1.12.5 of PBP to be BAL 12.5. The proposed buildings within Lot 2 shall comply sections 3 and 5 (BAL 12.5) under AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

The highest Bushfire Attack Level to the proposed buildings within Lot 3 was determined from Table A1.12.5 of PBP to be BAL 29. The proposed buildings within Lot 3 shall comply sections 3 and 7 (BAL 29) under AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

Access

The subject property has street frontage to Tallawong Road to the southwest. The proposed roads provide a loop road around the entire site.

The proposed road along the northeast boundary shall be a minimum of 8 metres wide meeting the perimeter road width requirements. The other roads will have a total road width of approximately 11 metres exceeding the non-perimeter road width requirements within PBP.

Fire services can access the hazard via the proposed road network for hazard reduction or fire suppression activities.

Access and opportunities for occupant evacuation are considered adequate for this property.

Services – Water, electricity & gas

There are in-ground hydrants are available along surrounding streets for the replenishment of attending fire services.

The proposal will include an extension of the hydrant network throughout the subject site. The proposed hydrant sizing, spacing and pressures are to comply with AS2419.1-2021.

The proposed building will have a new connection to the existing electrical network.

There is no gas connections proposed.

The proposed water supply is adequate for this development.

Bushfire Emergency management arrangements

Evacuation is possible by utilising existing road infrastructure.

This assessment includes a recommendation that a Bushfire Emergency Management and Evacuation Plan is created for each building.

6.04 Aim & Objectives

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

Aim / Objective	Comment
<p><i>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.</i></p>	<p>With the inclusion of the recommendations made herein it is of our opinion that the aim of PBP has been satisfied.</p>
<p><i>(i) afford buildings and their occupants protection from exposure to a bush fire;</i></p>	<p>The proposed buildings construction type in conjunction with the available APZs and additional measures included herein will protect occupants from exposures to a bushfire.</p>
<p><i>(ii) provide for a defensible space to be located around buildings;</i></p>	<p>There are defensible spaces available to the identified hazards, being the managed land and proposed roads within the subject property.</p>
<p><i>(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;</i></p>	<p>The APZs, in conjunction with construction measures will prevent the likely fire spread to the buildings.</p>

Aim / Objective	Comment
(iv) ensure that appropriate operational access and egress for emergency service personnel and occupants is available;	The proposed access and existing road network provide appropriate operational access and egress for emergency services.
(v) provide for ongoing management and maintenance of bush fire protection measures, (BPMs); and	All grounds within the 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'.
(vi) ensure that utility services are adequate to meet the needs of firefighters.	The proposed water supply is adequate for the replenishment of attending fire services.

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

8.02 Multi-storey Residential Development

Section 8.2.2 of PBP addresses multi-storey residential development which are buildings exceeding 3 stories in height.

The following table lists the specific considerations for multi-storey residential development in accordance with Table 8.2.2 of PBP and our comments of the proposal compliance or otherwise.

Technical Consideration	Comment
What capacity does the existing infrastructure have to allow evacuation of existing and proposed residents in the event of a bush fire?	<p>The only long-term hazard to the property is the Forest hazard >138 metres to the southeast in accordance with the local Indicative Layout Plan.</p> <p>The proposed building envelopes were found to be located >12 metres from the identified hazard to the northeast, >94 metres from the grassland hazard to the southeast and >24 metres to the grassland hazard to the southwest exceeding the minimum required APZs.</p> <p>The existing road network provides ample opportunity for the evacuation of residents in the unlikely event of a fire in the surrounding area and satisfies the access requirements detailed in Planning for Bush Fire Protection and provide egress options from the building away from any perceived bushfire hazard.</p>

Technical Consideration	Comment
Can the building be located away from ridge tops to areas that have a reduced bush fire exposure?	The proposed buildings are located away from ridgetops and has existing roads between the building and exceeds the minimum APZs.
If unavoidable, what is the impact on the risk to the building?	Not Applicable
Is this risk appropriate for the building and occupant numbers?	<p>As previously established, there have been no recorded wildfires within the subject site or adjacent sites (source NPWS Fire History dataset).</p> <p>In consideration of the previous bushfire history, fire-fighting coverage and BAL Low determination, the bushfire risk is considered appropriate for the buildings and occupant numbers.</p>
What are the flame dimensions, including the flame angle?	<p>Flame Length: 8.09m</p> <p>Flame Angle: 70 degrees</p>
Where is the hottest part of the flame located? How would this impact on the proposed building?	N/A
How would the warning and suppression systems in the building cope with this?	<p>The future building design, inclusive of warning and suppression systems, will account for the maximum projected radiant heat flux.</p> <p>Construction to the relevant BAL and the National Construction Code will account for the maximum projected radiant heat flux and other forms of bushfire attack.</p>
How does the emergency evacuation procedure take account of the location of bush fire prone vegetation?	The required Emergency Management Plan will be prepared as part of the future Development Applications process for the buildings.
What wall and cladding materials are proposed and what is proposed for the openings/penetrations (i.e. windows and doors)?	The future building will be designed and constructed in accordance with the National Construction Code.
How does the proposed building construction deal with fire spread from the vegetation to the inside of the building?	The future building will be designed and constructed in accordance with the National Construction Code.
Is compliance with AS 3959 sufficient to ensure that the bush fire risk is mitigated?	N/A.

Technical Consideration	Comment
Is this appropriate for the design fire scenario?	N/A
Are there balconies proposed?	Yes
What may be stored on the balconies?	Unknown, however, there is no restriction from a PBP requirement.
Can there be restrictions on what is stored on the balconies due to fire risk?	No
Is the warning and suppression system designed to take account of bush fire impact?	Warning systems required under the National Construction Code are considered satisfactory.
Where are exits located? Are they guiding occupants away from the car park?	Exits are available away from any perceived bushfire source.
What would this mean for fire suppression?	Suppression systems required under the National Construction Code are considered satisfactory.
How would warning and suppression systems take account of this?	Warning systems required under the National Construction Code are considered satisfactory.
What would this mean for evacuation?	N/A.

7.0 Recommendations

The following recommendations are provided as the minimum necessary for compliance with Planning for Bush Fire Protection – 2019. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

Asset Protection Zones

1. At the commencement of construction works and in perpetuity all areas within the subject property shall be maintained as an Asset Protection Zone (Inner Protection Area) 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. The proposed roofing and construction facing northwest, southeast and southwest on the buildings within Lot 1 shall comply sections 3 and 6 (BAL 19) under Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "*Planning for Bush Fire Protection - 2019*".
3. The proposed construction facing northeast on the buildings within Lot 1 shall comply sections 3 and 5 (BAL 12.5) under Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "*Planning for Bush Fire Protection - 2019*".
4. The proposed buildings within Lot 2 shall comply sections 3 and 5 (BAL 12.5) under Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "*Planning for Bush Fire Protection - 2019*".
5. The proposed roofing and construction facing northwest, northeast and southeast on the buildings within Lot 3 shall comply sections 3 and 7 (BAL 29) under Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "*Planning for Bush Fire Protection - 2019*".
6. The proposed construction facing southwest on the buildings within Lot 3 shall comply sections 3 and 6 (BAL 19) under Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas' and section 7.5 of "*Planning for Bush Fire Protection - 2019*".

Landscaping

7. That any new landscaping within the Asset Protection Zones is to comply with Table 7.4a of *Planning for Bush Fire Protection 2019*.

Emergency Management

8. That the bushfire emergency management plan to be prepared for each building and is to be consistent with the NSW Rural Fire Service Guidelines for the *Preparation of Emergency / Evacuation Plan*.

Access

9. All proposed roads shall comply with the General Access Requirements as detailed in Table 5.3b of *Planning for Bush Fire Protection* 2019, specifically:
 - property access roads are two-wheel drive, all-weather roads;
 - traffic management devices are constructed to not prohibit access by emergency services vehicles;
 - maximum grades for sealed roads do not exceed 15 degrees and an average grade of not more than 10 degrees or other gradient specified by road design standards, whichever is the lesser gradient;
 - where kerb and guttering is provided on perimeter roads, roll top kerbing should be used to the hazard side of the road;
 - the capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges/ causeways are to clearly indicate load rating.
 - hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression;
 - hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 - Fire hydrant installations System design, installation and commissioning;
10. That the proposed road along the eastern boundary shall comply with the requirements for Perimeter Roads as detailed in Table 5.3b of PBP, specifically:
 - are two-way sealed roads;
 - minimum 8m carriageway width kerb to kerb;
 - parking is provided outside of the carriageway width;
 - hydrants are located clear of parking areas;
 - curves of roads have a minimum inner radius of 6m;
 - the maximum grade road is 15 degrees and average grade of not more than 10 degrees;
 - the road crossfall does not exceed 3 degrees; and
 - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.
11. That all other roads shall comply with the requirements for Non-Perimeter Roads as detailed in Table 5.3b of PBP, specifically:
 - minimum 5.5m carriageway width kerb to kerb;
 - parking is provided outside of the carriageway width;
 - curves of roads have a minimum inner radius of 6m;
 - the road crossfall does not exceed 3 degrees; and
 - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

8.0 Conclusion

This SSDA seeks modification of existing consents related to the site (SPP-17-00031, SPP-17-00032, and SPP-17-00033) in accordance with the consent authority's powers under s4.17(1)(b) and (5) of the *Environmental Planning and Assessment Act 1979*. Those powers enable a consent authority to amend conditions in existing consents as part of the approval of a fresh development application including allowing substitution of plan references in conditions.

More particularly this SSDA seeks consent for an additional 78 dwellings (including 70 affordable housing units) and 21 car spaces to deliver a total of 411 apartments and 526 car spaces within the development of 1 shop-top housing building and 5 residential flat buildings consistent with the infill affordable housing provisions of Chapter 2, Part 2, Div. 1 of *State Environmental Planning Policy (Housing) 2021*.

In this instance the site is depicted on Blacktown City Council's Bushfire Prone Land Map (BPLM) as containing the Vegetation Buffer. The site is therefore considered 'bushfire prone land'.

In relation to this application of the issued Secretary's Environmental Assessment Requirements (SEARs) requires a bush fire assessment that details proposed bush fire protection measures and demonstrates compliance with Planning for Bush Fire Protection 2019 (PBP).

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.

It is of our opinion that the proposal satisfies all relevant specifications and requirements of PBP.

We are therefore in support of the development.

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

Prepared by
Building Code & Bushfire Hazard Solutions



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9.0 Annexure 01

List of Referenced Documents

Australian Building Codes Board (2022). *National Construction Code Volume One - Building Code of Australia*. ABCB

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

Place Studio (2025). *Site Plan* (Project No 2025018, Sheet Number SSSA.00.0100)

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

NSW Department of Planning, Housing and Infrastructure (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*.

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

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

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

Acknowledgements to:

Geoscience Australia
Street-directory.com.au
Nearmap

Attachments

Attachment 01: Proposed Plans

Discard Notes:
 1. All dimensions are in millimeters unless otherwise stated. All dimensions are to the centerline of walls and columns unless otherwise stated.
 2. All dimensions are to the centerline of walls and columns unless otherwise stated.
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 9. All dimensions are to the centerline of walls and columns unless otherwise stated.
 10. All dimensions are to the centerline of walls and columns unless otherwise stated.

REVISION:
 NO. DATE DESCRIPTION

LEGEND:
 APP

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 CLIENT: LK GROUP

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