



**FIRETECH**  
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ABN: 61977454030

## Bushfire Assessment Report

Proposed Development: Dual Occupancy: Demolition of existing detached dwelling;  
Construction of a new detached dwelling

Client: Brian Donnellan

Property Details: Lot 199 DP 755695

158 Skinners Shoot Road Skinners Shoot NSW 2481

LGA: Byron Shire

Date of Issue: 16/07/2024

Report prepared by:

*Peter Mamone*

GCert (Bushfire Protection) UWS

BEnvSci (Resource Mgt) SCU

FPAA Member #56127



### Document Control

Version	Date	Description	Prepared by	Authorised by
1.0	02/07/2024	Final	PM	PM
1.1	16/07/2024	Updated APZs with map	PM	PM

## Executive Summary

This report has been prepared to assess the Demolition of existing detached dwelling; Construction of a new detached dwelling at Lot 199 DP 755695, 158 Skinners Shoot Road Skinners Shoot NSW 2481 to determine the Bushfire Attack Level (BAL) for the site and relevant requirements under ‘*Planning for Bushfire Protection 2019*’ (PBP).

The results of the site assessment undertaken on 4/04/2023 are summarised below.

<i>Bushfire Attack Level (BAL) rating (PBP 2019):</i>	<i>BAL-29 (entire dwelling)</i>
<i>Does the development comply with PBP 2019:</i>	YES.
<i>Are Performance Solutions presented:</i>	NO.

Results from the site assessment are presented in [Section 3](#).

Full recommendations/requirements are detailed in [Section 4](#).

## Contents

Executive Summary.....	i
Table of Figures.....	iii
Table of Tables .....	iii
1. Introduction .....	1
1.1 PROPOSED DEVELOPMENT .....	1
1.2 BUSHFIRE PRONE LAND .....	2
1.3 AIM & OBJECTIVES .....	2
1.4 LIMITATIONS OF THIS REPORT .....	3
1.5 METHOD .....	3
2. Bushfire Threat Assessment .....	4
3. Results .....	7
4. Recommendations .....	14
5. Conclusion .....	15
Disclaimer .....	16
References.....	17
Legislation .....	17
Appendix A - Site Plans .....	18
Appendix B - RFS Documents .....	22

Table of Figures

Figure 1: Aerial image of the subject site (Source: Metromap 2024; Google Maps 2024) .....1

Figure 2: BFPL Map (Source: NSW Government 2024; Metromap 2024) .....2

Figure 3: Vegetation analysis for 158 Skinners Shoot Rd (Source: Metromap 2024) .....6

Figure 4: APZ Map for 158 Skinners Shoot Rd (Source: Metromap 2024) .....8

Table of Tables

Table 1. Vegetation formation analysis.....4

Table 2. Summary Bushfire Attack Level (BAL) Assessment .....7

Table 3. BPM Compliance - APZs .....7

Table 4. BPM Compliance - Construction .....9

Table 5. BPM Compliance - Access ..... 10

Table 6. BPM Compliance - Water Supply ..... 11

Table 7. BPM Compliance - Electricity & Gas Supply ..... 12

Table 8. BPM Compliance - Landscaping ..... 13

# 1. Introduction

## 1.1 PROPOSED DEVELOPMENT

This bushfire assessment report has been prepared by FireTech Bushfire Consulting on behalf of Brian Donnellan for, Demolition of existing detached dwelling; Construction of a new detached dwelling located at Lot 199 DP 755695, 158 Skinners Shoot Road Skinners Shoot NSW 2481 (Figure 1).

The development is classified as infill development therefore in accordance with Section 4.14 of the *Environmental Planning & Assessment Act 1979* (EP&A Act) the proposed development must satisfy the relevant consent authority that it can conform to the provisions within *Planning for Bushfire Protection 2019* (PBP), specifically, Section 7 *Residential Infill Development*.

The subject site is a rural residential lot with similar lots with dwellings situated to the north, south, and east. The main bushfire hazard is forest vegetation situated to the west, and also to the east.

The proposed dwelling shall be situated approximately 45m north of the other dwelling on the lot. That dwelling was approved and built in 2021 under DA No. 10.2021.179.1, and constructed to BAL-29 (AS-3959:2018).



Figure 1: Aerial image of the subject site (Source: Metromap 2024; Google Maps 2024)



## 1.2 BUSHFIRE PRONE LAND

The proposed development site is mapped as 'Bush Fire Prone Land' (BFPL) under section 10.3 of the Environmental Planning and Assessment Act (1979), thus triggering the legislative requirements for construction on bushfire prone land (Figure 2).

The proposed dwelling is mapped as being situated in Vegetation Category 3 (Figure 2).

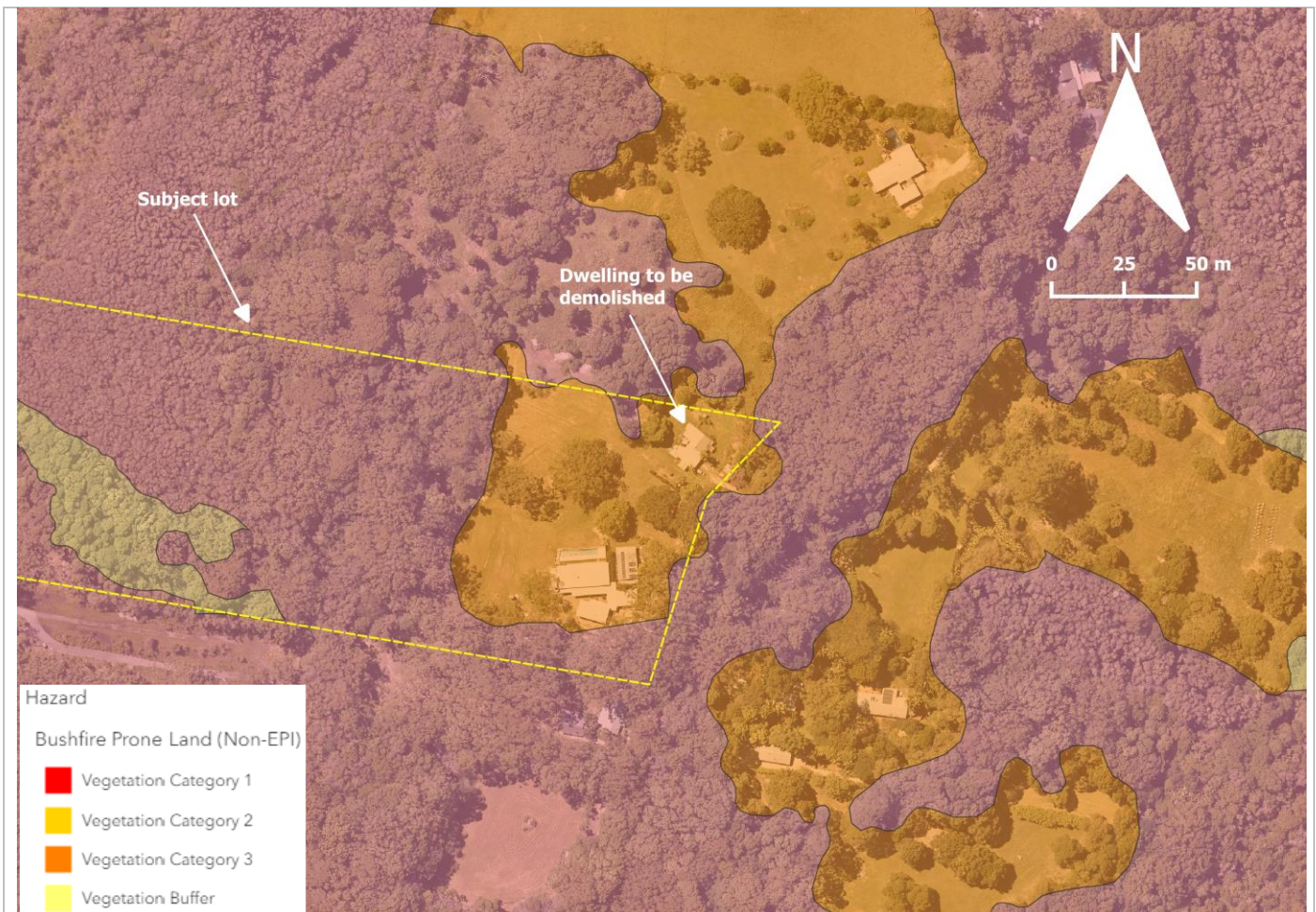


Figure 2: BFPL Map (Source: NSW Government 2024; Metromap 2024)

## 1.3 AIM & OBJECTIVES

All development on BFPL must satisfy the aim and objectives of *Planning for Bush Fire Protection (PBP)*. 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 (PBP).

The aim of this report is to demonstrate how the proposed development shall conform to the specific objectives of infill development (Section 7.3, PBP) by recommending & ensuring that appropriate

Bushfire Protection Measures (BPMs) are implemented and are commensurate to the bushfire risk to the site (Ref. Tables 3-8).

## 1.4 LIMITATIONS OF THIS REPORT

This bushfire report does not include an environmental, ecological or Aboriginal assessment. A Statement of Environmental Effects (SEE) and any supporting assessments, not limited to the list below, in support of the DA shall be the responsibility of the client.

- State Environmental Planning Policy (Biodiversity and Conservation) 2021
- State Environmental Planning Policy (Resilience and Hazards) 2021
- Biodiversity Conservation Act 2016 (NSW)
- Local Land Services Act 2013 (NSW)
- National Parks and Wildlife Act 1974 (NSW)
- Environmental Protection and Biodiversity Conservation Act 1999

## 1.5 METHOD

An onsite assessment of the subject site was undertaken on 4/04/2023 in accordance with the *Site Assessment Methodology* as described in Appendix 1 of PBP.

The Forest Fire Danger Index (FFDI) for the site is 80.





## 2. Bushfire Threat Assessment

### 2.1 VEGETATION ANALYSIS

Assessment of vegetation formations are undertaken in accordance with Keith (2004) and s.A1.2 of PBP, to at least 140m from the development site or building (Table 1; Figure 3).

Table 1. Vegetation formation analysis

<p>North – Grassland</p> <p>This area consists of a 20m wide easement and the neighbouring lot.</p> <p>While there are some interspersed trees, mostly Camphor Laurels, the vegetation type which would create the greatest hazard to the subject site is considered the unmanaged grass, on upslope.</p>	 <p>Photo 1: Grassland north</p>
<p>East – Forest</p> <p>This area consists of the remainder of the subject site with a narrow strip of mostly exotic, weedy vegetation between the property boundary and Skinners Shoot Rd, which does not have the ability to</p> <p>Beyond the road is forest vegetation on 0-5° downslope.</p>	 <p>Photo 2: Forest east</p>



### South – Managed Land

This area consists of the remainder of the subject site which has managed lawns throughout.

The other dwelling is situated approx. 45m from the proposed dwelling site.



*Photo 3: Managed land south*

### West – Managed Land & Forest

This area consists of managed grass within the subject site.

Beyond is forest vegetation on level ground.



*Photo 4: Managed land & forest west*



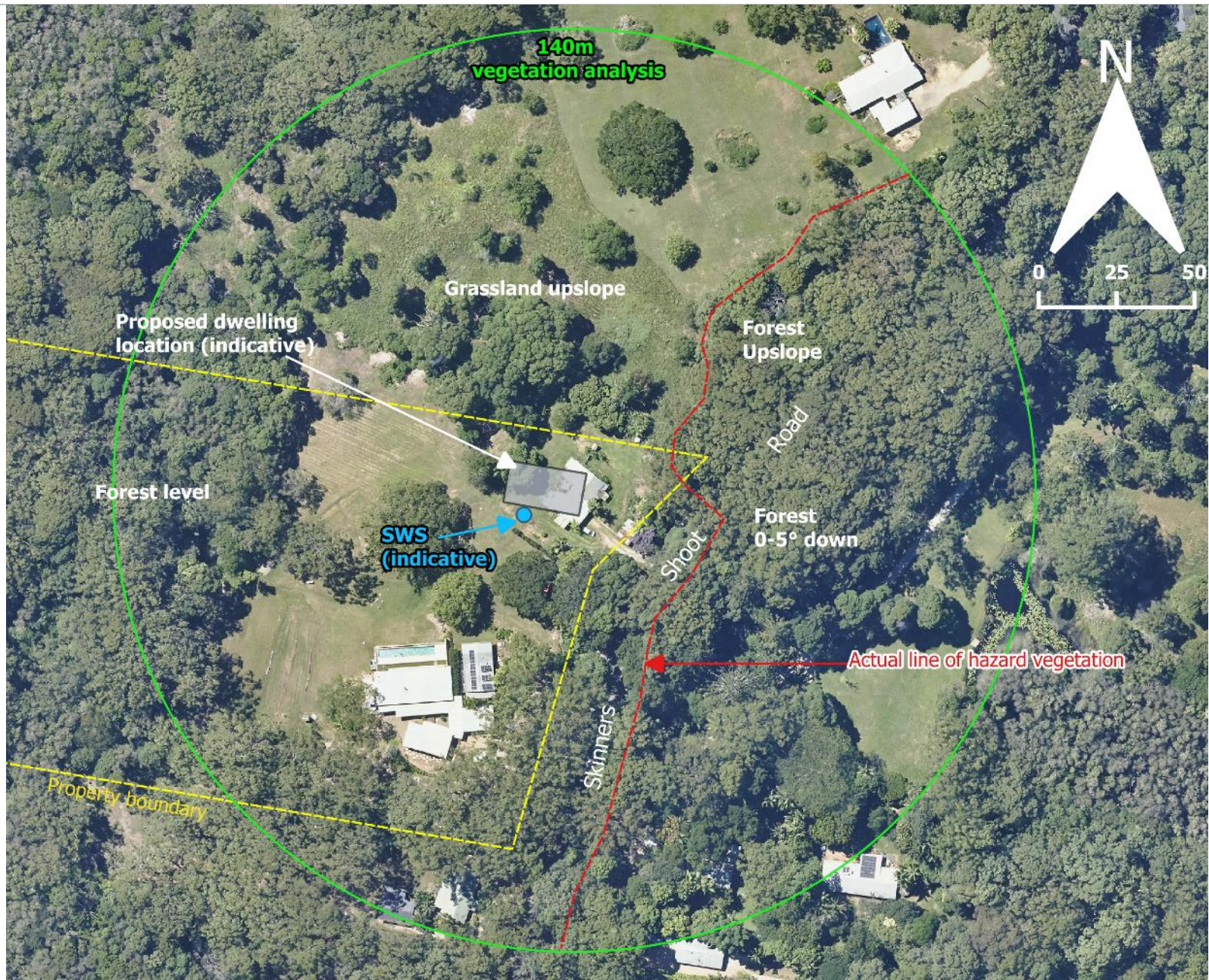


Figure 3: Vegetation analysis for 158 Skinners Shoot Rd (Source: Metromap 2024)



### 3. Results

The results of the onsite assessment and methods used for compliance with the BPMs are presented below.

#### 3.1 ASSET PROTECTION ZONES (APZs)

The APZ shall be maintained in perpetuity as an Inner Protection Area (IPA) per Table 7.4a of PBP 2019 and based on setbacks pursuant to Table A1.12.6 of PBP 2019 (Ref. Tables 2, 3 & Figure 4). The IPA must comply with *Appendix 4 - Asset Protection Zone Requirements* (PBP 2019) which is presented in Appendix B herein this report.

The surrounds of the proposed dwelling site provide for an effective APZ, consisting primarily of managed grass.

It is noted that no native vegetation modification is required for creation of an adequate APZ.

Table 2. Summary Bushfire Attack Level (BAL) Assessment

Direction	Vegetation formation	Distance to hazard (m)	Slope	APZ required (m)	Highest BAL rating
North	Grassland	10	Upslope	10	BAL-29
East	Forest	40	0-5° down	To boundary	-
Northeast	Forest	26	Upslope	20	BAL-29
Southeast	Forest	39	0-5° down	To boundary	
South	Managed Land	-	-	20	-
West	Forest	70	Level	20	BAL-29

Table 3. BPM Compliance - APZs

BPM	Performance Criteria	Acceptable Solutions	Complies
Asset Protection Zones	APZs are provided commensurate with the construction of the building; and  A defensible space is provided.	An APZ is provided in accordance with Table A1.12.2 or A1.12.3 in Appendix 1.	YES – refer s.4.
	APZs are managed and maintained to prevent the spread of a fire to the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP.	YES
	The APZ is provided in perpetuity.  APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	APZs are wholly within the boundaries of the development site.  APZ are located on lands with a slope less than 18 degrees.	YES



Figure 4: APZ Map for 158 Skinners Shoot Rd (Source: Metromap 2024)



## 3.2 CONSTRUCTION LEVEL

### NEW DWELLING

The BAL rating/s for the proposed development is as follows: BAL-29 (entire dwelling).

Therefore, construction shall comply with *AS3959:2018 'Construction of Buildings in Bushfire-prone Areas'* s.3 - Construction General and s.7 - Construction Requirements for BAL-29 (entire dwelling), in addition to the NSW variations detailed in s.7.5.2 of PBP 2019 and the National Construction Code (NCC).

It is highly recommended that the assigned BAL rating(s) are clearly displayed on all plans used for construction.

### EXISTING DWELLING

The other dwelling on the lot was constructed in 2021 to a BAL-29 rating under DA No. 10.2021.179.1. No further requirements for the existing dwelling for bushfire.

Table 4. BPM Compliance - Construction

BPM	Performance Criteria	Acceptable Solutions	Complies
Construction Standards	The proposed building can withstand bush fire attack in the form of embers, radiant heat, and flame contact.	BAL is determined in accordance with Tables A1.12.5 to A1.12.7; and  Construction provided in accordance with the NCC and as modified by section 7.5 (please see advice on construction in the flame zone).	YES – refer s.4.
	Proposed fences and gates are designed to minimise the spread of bush fire.	Fencing and gates are constructed in accordance with section 7.6.	YES
	Proposed Class 10a buildings are designed to minimise the spread of bush fire.	Class 10a buildings are constructed in accordance with section 8.3.2.	N/A

### 3.3 ACCESS

Access is to comply with Table 7.4a of PBP 2019 (Ref. Table 5).

Access to the subject site is by way of a Council-managed, sealed, two-way road (Skinners Shoot Road).

A new, short all-weather driveway is proposed to provide access to the dwelling.

Table 5. BPM Compliance - Access

BPM	Performance Criteria	Acceptable Solutions	Complies
Access	Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Property access roads are two-wheel drive, all-weather roads.	YES
	The capacity of access roads is adequate for firefighting vehicles.	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.	YES
	There is appropriate access to water supply.	Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2021;  There is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available.	YES
	Firefighting vehicles can access the dwelling and exit the property safely.	At least one alternative property access road is provided for individual dwellings or groups of dwellings that are located more than 200 metres from a public through road.  There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles.	YES – refer s.4.

### 3.4 WATER SUPPLY

Water supply is to comply with Table 7.4a of PBP 2019 (Ref. Table 6).

A water supply of at least 10,000L shall be provided for firefighting purposes.

Table 6. BPM Compliance - Water Supply

BPM	Performance Criteria	Acceptable Solutions	Complies
Water Supplies	An adequate water supply is provided for firefighting purposes.	Reticulated water is to be provided to the development where available.  A static water supply is provided where no reticulated water supply is available.	YES – refer s.4.
	Water supplies are located at regular intervals; and  The water supply is accessible and reliable for firefighting operations.	Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2021;  Hydrants are not located within any road carriageway; and  Reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.	N/A
	Flows and pressure are appropriate.	Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2021.	N/A
	The integrity of the water supply is maintained.	All above-ground water service pipes external to the building are metal, including and up to any taps.	YES
	A static water supply is provided for firefighting purposes in areas where reticulated water is not available.	Where no reticulated water supply is available, water for firefighting purposes is provided in accordance with Table 5.3d (PBP).	YES

### 3.5 UTILITIES – ELECTRICITY & GAS SUPPLY

Electricity & Gas services are to comply with Table 7.4a of PBP 2019 (Ref. Table 7).

Electricity & Gas services (where installed) shall be located to limit the possibility of ignition of the surrounding vegetation or fabric of the building.

An existing overhead electricity supply complies with the requirements of PBP.

Table 7. BPM Compliance - Electricity & Gas Supply

BPM	Performance Criteria	Acceptable Solutions	Complies
Electricity	Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	<p>Where practicable, electrical transmission lines are underground; and</p> <p>Where overhead, electrical transmission lines are proposed as follows:</p> <ul style="list-style-type: none"> <li>Lines are installed with short pole spacing of 30m, unless crossing gullies, gorges, or riparian areas; and</li> <li>No part of a tree is closer to a power line than the distance set out in ISSC3 <i>Guideline for Managing Vegetation Near Power Lines</i>.</li> </ul>	YES
Gas	Location and design of gas services will not lead to ignition of surrounding Bushland or the fabric of buildings.	<p>Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - The storage and handling of LP Gas, and the requirements of relevant authorities, and metal piping is used.</p> <p>All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side.</p> <p>Connections to and from gas cylinders are metal.</p> <p>Polymer-sheathed flexible gas supply lines are not used; and</p> <p>Above-ground gas service pipes are metal, including and up to any outlets.</p>	YES – where installed.



### 3.6 LANDSCAPING

Landscaping is to comply with Table 7.4a of PBP 2019 (Ref. Table 8).

Landscaping should be designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.

Table 8. BPM Compliance - Landscaping

BPM	Performance Criteria	Acceptable Solutions	Complies
Landscaping	Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	<p>Compliance with the NSW RFS 'Asset protection zone standards' (see Appendix 4).</p> <p>A clear area of low-cut lawn or pavement is maintained adjacent to the house;</p> <p>Fencing is constructed in accordance with section 7.6; and</p> <p>Trees and shrubs are located so that:</p> <ul style="list-style-type: none"><li>• The branches will not overhang the roof;</li><li>• The tree canopy is not continuous; and</li><li>• Any proposed windbreak is located on the elevation from which fires are likely to approach.</li></ul>	YES – refer s.4.

### 3.7 EMERGENCY PLANNING

It is highly recommended that a bushfire survival plan is created for all developments situated on BFPL. A plan can be downloaded via [www.rfs.nsw.gov.au/resources/bush-fire-survival-plan](http://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan) (NSW RFS 2022).

## 4. Recommendations

### APZ

- The APZ shall be managed as an Inner Protection Area (IPA) for a minimum of 10m on the northern aspect, minimum of 20m on the southern & western aspect, and to the boundary on the eastern aspect (Ref. Figure 4).
- No native vegetation modification is required for creation of an adequate APZ.

### CONSTRUCTION LEVEL

- To be constructed as per s.3 - Construction General and s.7 - Construction Requirements for BAL-29 (entire dwelling), in addition to the NSW variations detailed in s.7.5.2 of PBP 2019 and the National Construction Code.
- No requirements for the existing dwelling (DA No. 10.2021.179.1) for bushfire.

### ACCESS

- A suitable turning/reversing area must be supplied in accordance with *Appendix 3 - Access* (PBP).

### WATER SUPPLY

- A water supply of at least 10,000L shall be provided for firefighting purposes.
- For all Static Water Sources (SWS):
  - Where a tank is used for this purpose, it must be non-combustible & have a 65mm Storz valve installed, or underground tanks must have an access hole of 200mm to allow tankers to refill direct from the tank;
  - Ball valve and pipes are adequate for water flow and are metal;
  - Supply pipes from tank to ball valve have the same bore size to ensure flow volume;
  - All exposed water pipes external to the building are metal, including any fittings;
  - A hardened ground surface shall be provided within 4m of the water supply to allow access for firefighting vehicles, and the connection for firefighting purposes is located within the IPA or non-hazard side, and away from the dwelling;
  - 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;
  - Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters;
  - 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; and
  - Where fire hose reels are provided, they are constructed in accordance with AS/NZS 1221:1997 and installed in accordance with the relevant clauses of AS 2441:2005.

### LANDSCAPING

- Landscaping shall be undertaken to comply with *Appendix 4 - Asset Protection Zone Requirements* (PBP) & RFS guide 'Standards for Asset Protection Zones'.

## 5. Conclusion

This report has demonstrated that the proposed development shall comply with the acceptable solutions as set out in *Planning for Bush Fire Protection (2019)*, based upon compliance with the Bushfire Protection Measures and recommendations contained within this report (Ref. Sections 3 & 4 herein).

## Disclaimer

This report has been prepared exclusively for the client and their purposes stated in the opening page above. The report is valid for twelve (12) months from the date of issue, however, where there have been significant alterations to the site, this report will become invalid, and a new site assessment may be required.

Recommendations made within this report are made in good faith and are based on requirements set out in *Planning for Bush Fire Protection 2019, AS3959 'Construction of Buildings in Bushfire-prone Areas'*, and the National Construction Code to reduce the risk to life and property. However, it is noted that bushfires are by nature unpredictable therefore the recommendations contained within this report does not guarantee against adverse impacts created by bushfire.



## References

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

NSW Rural Fire Service. (2019). *Planning for Bush Fire Protection: A guide for councils, planners, fire authorities and developers*. Granville: NSWRFSS.

Standards Australia. (2020). Australian Standard 3959:2018 - Construction of buildings in bush fire prone areas. Sydney: SAI Global.

## Legislation

NSW Government. *Environmental Planning and Assessment Act 1979*.

NSW Government. *Rural Fires Act 1997*.

## Appendix A – Site Plans

N3 - METAL ROOF/90mm EXT. FRAME @600 CRS.

IF IN DOUBT - ASK

**SITE NOTES:**

NOTE: PAD LEVEL TO BE CONFIRMED ON SITE. NOMINATED CUT/FILL HEIGHTS ARE INDICATIVE ONLY. SITE CUT/FILL BATTERS ARE APPROXIMATE ONLY AND MAY VARY TO SOILS AND SITE CONDITIONS. IT IS THE OWNER'S RESPONSIBILITY TO STABILISE THE SITE INCLUDING BATTERS, AND PROVIDE SEDIMENTATION CONTROL AFTER HANDOVER IF REQUIRED.

SEE SHEET 4 FOR 1:200 DETAILS

CLIENT SIGN: \_\_\_\_\_ DATE: \_\_\_\_\_

ALL STORMWATER AND DRAINAGE TO BE IN ACCORDANCE WITH CURRENT NCC PLUMBING CODE OF AUSTRALIA VOL. 3 (SECTION D) IN ADDITION TO ASINZS. 3500. ENSURE MIN. 1500mm FROM GAS BOTTLES TO FIELD GULLIES.

ENSURE 100mm DIAMETER AGRICULTURAL DRAINS ARE PROVIDED TO THE BASE OF ALL CUTS AND RETAINING WALLS AND ARE CONNECTED TO THE STORMWATER SYSTEM VIA SCREENED SILT PITS AS REQUIRED.

EXTERNAL FINISHED SURFACES SURROUNDING THE BUILDING MUST BE DRAINED TO DISPERSE WATER AWAY FROM THE BUILDING GRADED TO A SLOPE NOT LESS THAN 50mm OVER THE FIRST 1000mm FROM THE BUILDING.

SPOON DRAIN & EARTH BERM TO DIVERT OVERLAND SURFACE WATER AROUND BUILDING PAD.

THE HEIGHT OF OVERFLOW RELIEF GULLIES (ORG) RELATIVE TO DRAINAGE FITTINGS AND GROUND LEVEL MUST BE A MINIMUM OF 150mm BELOW THE LOWEST SANITARY FIXTURE.

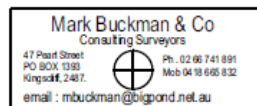
CONNECT DOWNPIPES TO LEGAL POINT OF DISCHARGE VIA 100mm DIAMETER UPVC STORMWATER PIPE LAID WITH A MINIMUM FALL OF 1:100. DISCHARGE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.

DISCHARGE STORMWATER TO LOCAL AUTHORITY REQUIREMENTS.

PROVIDE A BELFLEX EXPANSION JOINT FILLER BETWEEN HOUSE AND DRIVEWAY TERRACE/PORCH SLAB.

FILL BATTER GRADIENT @ 1 : 2 WHERE ACHIEVABLE (MAX 1 : 1.5), CUT BATTER GRADIENT @ 1:1.5

SEDIMENT CONTROL BARRIER AS REQUIRED FOR  
CONSTRUCTION PURPOSES ONLY

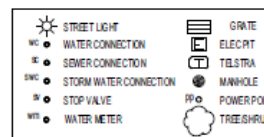


## BAL 29

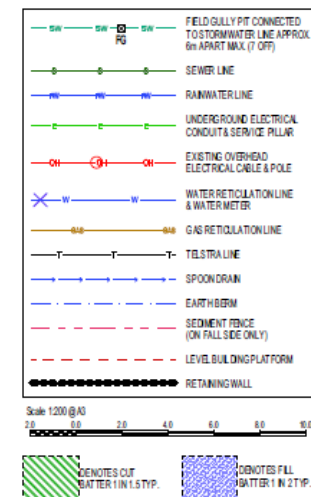
To comply with bushfire attack level 29 to AS3959-2018

- [illegible]

### LEGEND



### SERVICES LEGEND

**PROPERTY DESCRIPTION:**

LOT 199 ON DP 755695  
LOCALITY - SKINNERS SHOOT  
COUNCIL - BYRON  
SITE AREA - 6.95 Ha  
SITE COVERAGE - 0.43%

**KEYWORDS:** Technology; Social media; Digital marketing; Facebook; Twitter

FERRY HOMES (AUST) PTY LTD RESERVES THE RIGHT TO MODIFY AND IMPROVE THE DESIGN AT ITS DISCRETION. - DO NOT SCALE OFF DRAWINGS. USE ONLY THE WRITTEN DIMENSIONS AND VERIFY ALL DIMENSIONS ON SITE.

  
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I/WE APPROVE THESE DRAWINGS TO BE CORRECT AS PER CONTRACT

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**M. McGrane**  
Lot 199 (No. 158) Skinners Shoot Road  
Skinners Shoot, NSW. 2481

**Aria 28 Hampton LH**  
Locality Plan

D	01.07.24	PCV3
C	13.06.24	PCV2
B	15.05.24	SF6
A	19.04.24	AMENDED AS PER CHECK

10	<b>CONTRACT PLAN</b>			<b>10683</b>	<b>D</b>	<b>as shown</b>
11					Issue No:	changed to 10683
12					1072024	2 of 15

# N3 - METAL ROOF/90mm EXT. FRAME @600 CRS.

## SITE NOTES:

NOTE: PAD LEVEL TO BE CONFIRMED ON SITE. NOMINATED CUT/FILL HEIGHTS ARE INDICATIVE ONLY. SITE CUT/FILL BATTERS ARE APPROXIMATE ONLY AND MAY VARY TO SOILS AND SITE CONDITIONS. IT IS THE OWNER'S RESPONSIBILITY TO STABILISE THE SITE INCLUDING BATTERS, AND PROVIDE SEDIMENTATION CONTROL AFTER HANDOVER IF REQUIRED.

CLIENT SIGN: \_\_\_\_\_ DATE: \_\_\_\_\_

ALL STORMWATER AND DRAINAGE TO BE IN ACCORDANCE WITH CURRENT NCC PLUMBING CODE OF AUSTRALIA VOL. 3 (SECTION D) IN ADDITION TO AS/NZS 3500. ENSURE MIN. 1500mm FROM GAS BOTTLES TO FIELD GULLIES.

ENSURE 100mm DIAMETER AGRICULTURAL DRAINS ARE PROVIDED TO THE BASE OF ALL CUTS AND RETAINING WALLS AND ARE CONNECTED TO THE STORMWATER SYSTEM VIA SCREENED SILT PITS AS REQUIRED.

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THE HEIGHT OF OVERFLOW RELIEF GULLIES (ORG) RELATIVE TO DRAINAGE FITTINGS AND GROUND LEVEL MUST BE A MINIMUM OF 150mm BELOW THE LOWEST SANITARY FIXTURE.

CONNECT DOWNPIPES TO LEGAL POINT OF DISCHARGE VIA 100mm DIAMETER UPVC STORMWATER PIPELAIN WITH A MINIMUM FALL OF 1:100. DISCHARGE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.

DISCHARGE STORMWATER TO LOCAL AUTHORITY REQUIREMENTS.

PROVIDE INLET/EXPANSION JOINT/FILLER BETWEEN HOUSE AND DRIVEWAY INTERFERENCE PORCH SLAB.

FILL BATTER GRADIENT @ 1:2 WHERE ACHIEVABLE (MAX. 1:1.5) CUT BATTER GRADIENT @ 1:1.5

SEDIMENT CONTROL BARRIER AS REQUIRED FOR CONSTRUCTION PURPOSES ONLY

**BAL 29**  
To comply with bushfire attack level 29 to AS3959-2018

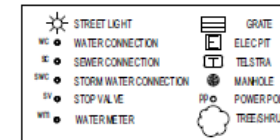
**Mark Buckman & Co**  
Consulting Surveyors  
47 Peel Street  
PO BOX 1393  
Kingscliff, 2487.  
Ph: 02 66 741 891  
Mob: 0418 969 832  
email: mbuckman@bigpond.net.au

## PROPERTY DESCRIPTION

LOT 199 ON DP 755695  
LOCALITY - SKINNERS SHOOT  
COUNCIL - BYRON  
SITE AREA - 6.95 Ha  
SITE COVERAGE - 0.40%

## Site Plan Scale 1:200

## LEGEND



## IF IN DOUBT - ASK

SEE SHEET 2 FOR ENLARGEMENT OF HOUSE SITE  
SEE SHEET 2 FOR SERVICES LEGEND, BAL 29 NOTE

OWNERS TO SUPPLY AND INSTALL A MINIMUM 10,000 LITRE WATER TANK DEDICATED FOR FIRE FIGHTING PURPOSES AS REQUIRED BY THE LOCAL AUTHORITY AND LOCAL FIRE SERVICE, PRIOR TO OCCUPATION, INCLUDING 65MM STORZ OUTLET WITH SHUT-OFF VALVE.

CONNECTION TO WORK UNKNOWN TO TELSTRA  
STORMWATER CONNECTION TO THE STORMWATER TRENCH WITHIN 10M OF THE HOME  
STORMWATER RUBBLE STORAGE TRENCH SYSTEM OF DIMENSIONS 10M X 0.6M WIDE X 0.6M DEEP (3.0M X 0.6M)

NOTED: THIS DRAWING IS A GUIDE AND NOT A CONTRACT DOCUMENT. THE USER OF THIS DRAWING IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS ON SITE.

PERRY HOMES (AUSTRALIA) PTY. LTD. RESERVES THE RIGHT TO MODIFY AND IMPROVE THE DESIGN AT ITS DISCRETION. - DO NOT SCALE OFF DRAWINGS, USE ONLY THE WRITTEN DIMENSIONS AND VERIFY ALL DIMENSIONS ON SITE.

IF WE APPROVE THESE DRAWINGS TO BE CORRECT AS PER CONTRACT

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**M. McGraw**  
Lot 199 (No. 158) Skimmers Shoot Road  
Skimmers Shoot, NSW. 2481

**Aria 28 Hampton LH**  
Site Plan  
Drawing No.

D 01/07/24 PD3  
C 13/06/24 PD2  
B 15/05/24 SP5  
A 19/04/24 (AMENDED AS PER CHECK)

**CONTRACT PLAN 10683**  
Issue No. 1072024  
4 of 15



## N3 - METAL ROOF/90mm EXT. FRAME @600 CRS.

### NOTE:

JOINERY HEAD HEIGHT AT 2420mm AFL U.N.O.  
ENSURE FULL ARCH TRAVE OVER WINDOWS TO (210)  
BULKHEAD

### BRICKLAYER NOTE:

PROVIDE STAINLESS STEEL BRICK TIES  
BRICK JOINTS SHALL BE TOOLED  
BRICKS SHALL BE EXPOSURE GRADE

### BAL 29

To comply with bushfire attack  
level 29 to AS 3959-2018

### NOTE:

- TERMITE TREATMENT TO COMPLY WITH CLAUSE 3.4.2 ABCB & AS 3660.1-2014.
- TIMBER CONSTRUCTION TO COMPLY WITH THE PROVISIONS OF NCC VOL.2:2022 PART 1.10.6 AND AS 1720.1-2010/AS 1684-2021
- CONCRETE CONSTRUCTION TO COMPLY WITH NCC VOL.2:2022 CLAUSE 11.0.2 & AS 2870.1-2011/AS 3600-2018.
- ENSURE FULL ARCH TRAVE OVER WINDOWS UNDER BULKHEAD.
- PROVIDE NOGGING FOR TOWEL RAIL.
- W.C. DOORS TO BE FITTED WITH LIFT OF FRINGES OR TO SWING OUT IN ACCORDANCE WITH NCC VOL.2:2022 PART 1.10.6.
- WET AREAS TO BE WATERPROOFED IN ACCORDANCE WITH 11.0.2 OF THE NCC VOL.2:2022. 150-40 FALL TO FLOOR WASTES.
- SMOKE ALARMS TO COMPLY WITH THE PROVISIONS OF PART 11.0.6 OF THE NCC VOL.2:2022 & PART 9.5 OF ABCB.
- ALL EXTERNAL WALLS WITHIN 900mm FROM AN ALLOTMENT BOUNDARY TO HAVE AN FRL OF NOT LESS THAN 60/60/60 WHEN TESTED FROM THE OUTSIDE. NO PROTECTION REQUIRED FOR THE WALL AT RIGHT ANGLES OR MORE TO THE BOUNDARY AS PER NCC VOL.2:2022 CLAUSE 9.2 ABCB.
- REFER TO ENGINEER'S DRAWINGS FOR BRICKWORK EXPANSION JOINTS.
- BARRIERS, STEPS & HANDRAILS TO COMPLY WITH NCC VOL.2:2022 PART 11, AS 1657-2016 & AS 1684-2021.

### NOTE:

GUTTER, FASCIA AND DOWNPIPES TO BE INSTALLED TO MANUFACTURERS DETAILS AND TO COMPLY WITH CURRENT NCC.

ROOFING TO BE FIXED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS FOR N3 - METAL ROOF 90mm EXT. FRAME @ 600 CRS. CONDITIONS.

STEEL ROOFING TO COMPLY WITH H101 NCC VOL.2:2022 ABCB PART 7.2 AND AS 1562.1-2018.

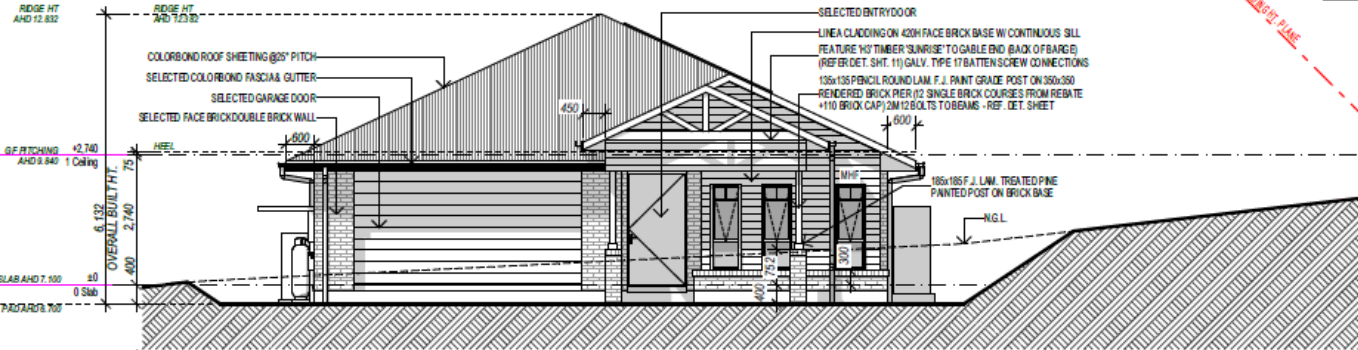
CONCRETE ROOFING TO COMPLY WITH H101 NCC VOL.2:2022 ABCB PART 7.3 AS 2049-2002/AS 2050-2018.

PROVIDE ALCOB BARRIER BETWEEN LEAD FLASHING AND ZINCALUME VALLEY GUTTER AS REQUIRED.

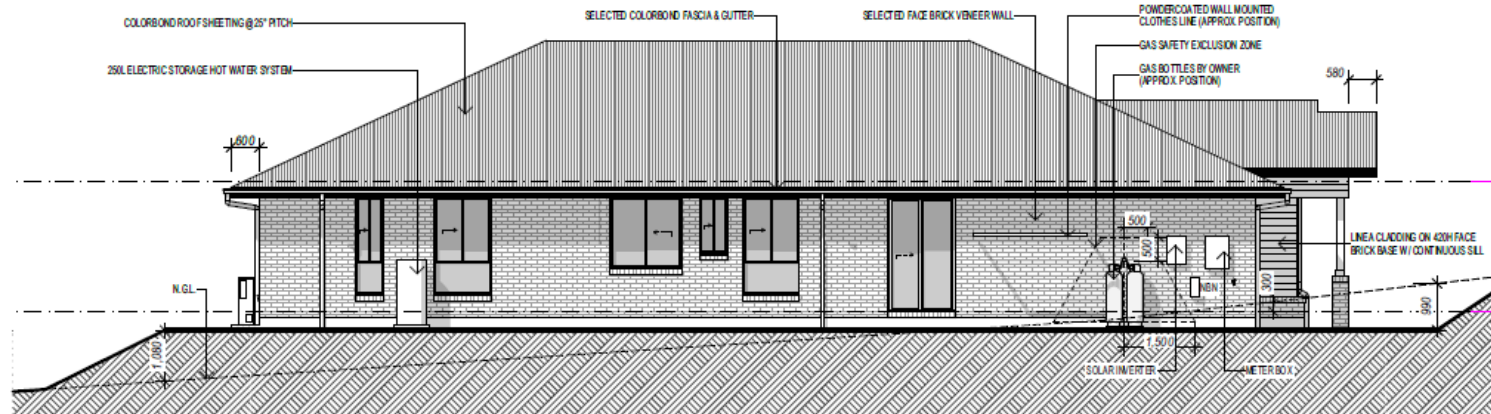
MASONRY CONSTRUCTION TO COMPLY WITH NCC VOL.2:2022 SECTION 5 ABCB AND AS 3700-2018/AS 4773.1 AND AS 4773.2-2015. WEEP HOLES MAX 1200 CTRS. TO COMPLY TO PROVIDE CLAUSE 11.0.5 OF NCC VOL.2:2022 & CLAUSE 5.7.5 OF ABCB.

BRICK PAT TERN IS SHOWN FOR ILLUSTRATION PURPOSES ONLY - BRICK SET OUT SHALL BE DETERMINED BY THE BRICKLAYER. VERTICAL ARTICULATION JOINTS TO COMPLY WITH THE PROVISIONS OF PART 5.6.8 ABCB OF THE NCC VOL.2:2022.

PROTECTION OF WALL TIES & LINTELS IN MASONRY TO COMPLY WITH PROVISIONS OF PART 5.6.5 ABCB OF NCC.



FRONT Elevation - EAST  
Scale 1:100



LEFT Elevation - SOUTH  
Scale 1:100

<p><b>Perry Homes</b></p> <p>AS-40 OFFICE 40-44 Macquarie Street, Sydney NSW 2000 p: 02 9550 9400 e: admin@perryhomes.com.au www.perryhomes.com.au</p>		<p>THIS DRAWING HAS BEEN PREPARED BY AN AUTHORIZED PERSON IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING ACT 2016. THE DRAWING IS THE PROPERTY OF PERRY HOMES AND IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF PERRY HOMES.</p>		<p><b>M. McGrane</b> Lot 199 (No. 158) Skinners Shoot Road Skinners Shoot, NSW. 2481</p>		<p><b>Aria 28 Hampton LH</b> Elevations</p>		<p><b>CONTRACT PLAN 10683</b></p>		<p><b>D</b> as shown 10/12/2024 6 of 15</p>	
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# APPENDIX 4

## ASSET PROTECTION ZONE REQUIREMENTS

In combination with other BPMs, a bush fire hazard can be reduced by implementing simple steps to reduce vegetation levels. This can be done by designing and managing landscaping to implement an APZ around the property.

Careful attention should be paid to species selection, their location relative to their flammability, minimising continuity of vegetation (horizontally and vertically), and ongoing maintenance to remove flammable fuels (leaf litter, twigs and debris).

This Appendix sets the standards which need to be met within an APZ.

### A4.1 Asset Protection Zones

An APZ is a fuel-reduced area surrounding a building or structure. It is located between the building or structure and the bush fire hazard.

For a complete guide to APZs and landscaping, download the NSW RFS document *Standards for Asset Protection Zones* at the NSW RFS Website [www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au).

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows for suppression of fire;
- an area from which backburning or hazard reduction can be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and home owners to defend their property.

Bush fire fuels should be minimised within an APZ. This is so that the vegetation within the zone does not provide a path for the spread of fire to the building, either from the ground level or through the tree canopy.

An APZ, if designed correctly and maintained regularly, will reduce the risk of:

- direct flame contact on the building;
- damage to the building asset from intense radiant heat; and
- ember attack.

The methodology for calculating the required APZ distance is contained within Appendix 1. The width of the APZ required will depend upon the development type and bush fire threat. APZs for new development are set out within Chapters 5, 6 and 7 of this document.

In forest vegetation, the APZ can be made up of an Inner Protection Area (IPA) and an Outer Protection Area (OPA).

#### A4.1.1 Inner Protection Areas (IPAs)

The IPA is the area closest to the building and creates a fuel-managed area which can minimise the impact of direct flame contact and radiant heat on the development and act as a defensible space. Vegetation within the IPA should be kept to a minimum level. Litter fuels within the IPA should be kept below 1cm in height and be discontinuous.

In practical terms the IPA is typically the curtilage around the building, consisting of a mown lawn and well maintained gardens.

When establishing and maintaining an IPA the following requirements apply:

##### Trees

- 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; and
- preference should be given to smooth barked and evergreen trees.

##### Shrubs

- create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover; and
- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.

##### Grass

- 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.

#### A4.1.2 Outer Protection Areas (OPAs)

An OPA is located between the IPA and the unmanaged vegetation. It is an area where there is maintenance of the understorey and some separation in the canopy. The reduction of fuel in this area aims to decrease the intensity of an approaching fire and restricts the potential for fire spread from crowns; reducing the level of direct flame, radiant heat and ember attack on the IPA.

Because of the nature of an OPA, they are only applicable in forest vegetation.

When establishing and maintaining an OPA the following requirements apply:

##### Trees

- tree canopy cover should be less than 30%; and
- canopies should be separated by 2 to 5m.

##### Shrubs

- shrubs should not form a continuous canopy; and
- shrubs should form no more than 20% of ground cover.

##### Grass

- grass should be kept mown to a height of less than 100mm; and
- leaf and other debris should be removed.

An APZ should be maintained in perpetuity to ensure ongoing protection from the impact of bush fires. Maintenance of the IPA and OPA as described above should be undertaken regularly, particularly in advance of the bush fire season.



# APPENDIX 3

## ACCESS

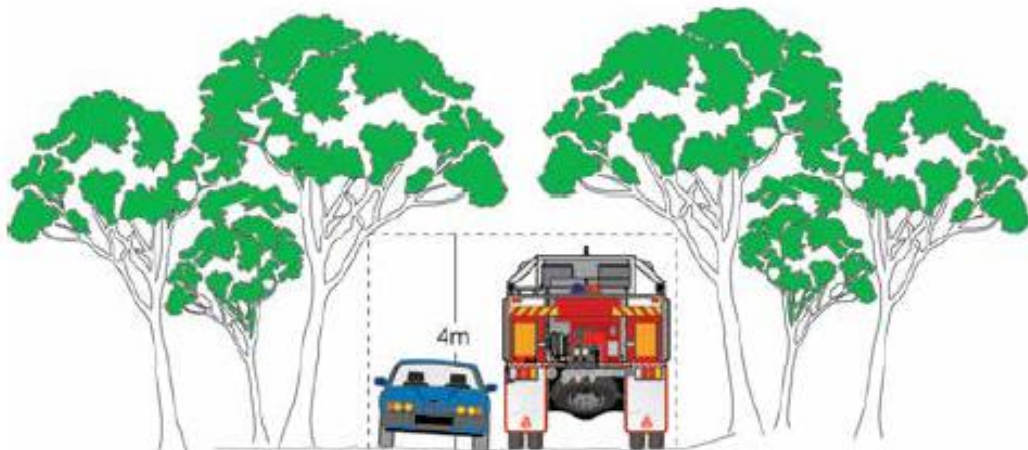
This appendix provides design principles for emergency service vehicle access.

### A3.1 Vertical clearance

An unobstructed clearance height of 4 metres should be maintained above all access ways including clearance from building construction, archways, gateways and overhanging structures (e.g. ducts, pipes, sprinklers, walkways, signs and beams). This also applies to vegetation overhanging roads.

**Figure A3.1**

Vertical clearance.



### A3.2 Vehicle turning requirements

Curved carriageways should be constructed using the minimum swept path as outlined in Table A3.2.

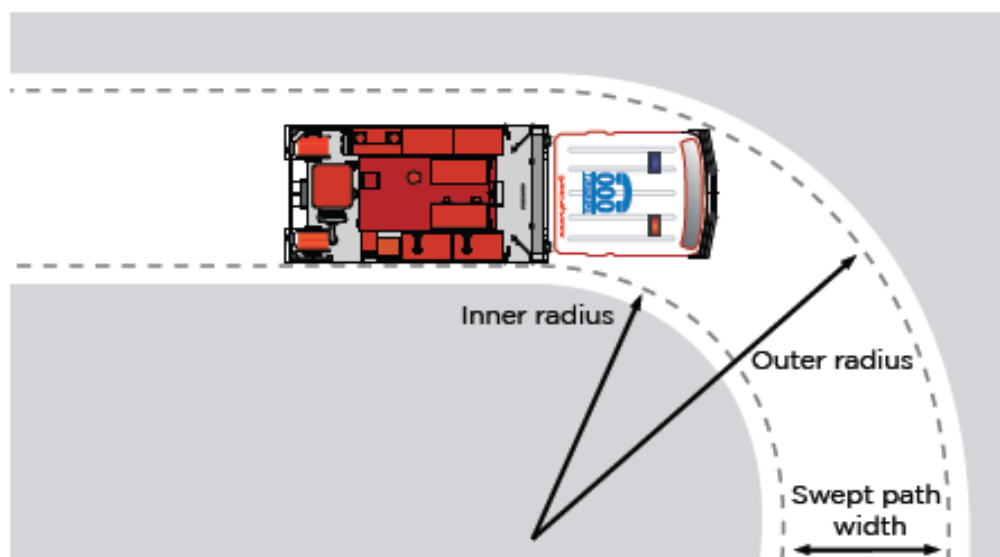
**Table A3.2**

Minimum curve radius for turning vehicles.

Curve radius (inside edge in metres)	Swept path (metres width)
< 40	4.0
40 - 69	3.0
70 - 100	2.7
> 100	2.5

**Figure A3.2a**

Swept path width for turning vehicles.



The radius dimensions given are for wall to wall clearance where body overhangs travel a wider arc than the wheel tracks (vehicle swept path). The swept path shall include an additional 500mm clearance either side of the vehicle.

**Figure A3.2b**

Roundabout swept path.



Example of a swept path as applied to a roundabout. The distance between inner and outer turning arcs allows for expected vehicle body swing of front and rear overhanging sections (the swept path).

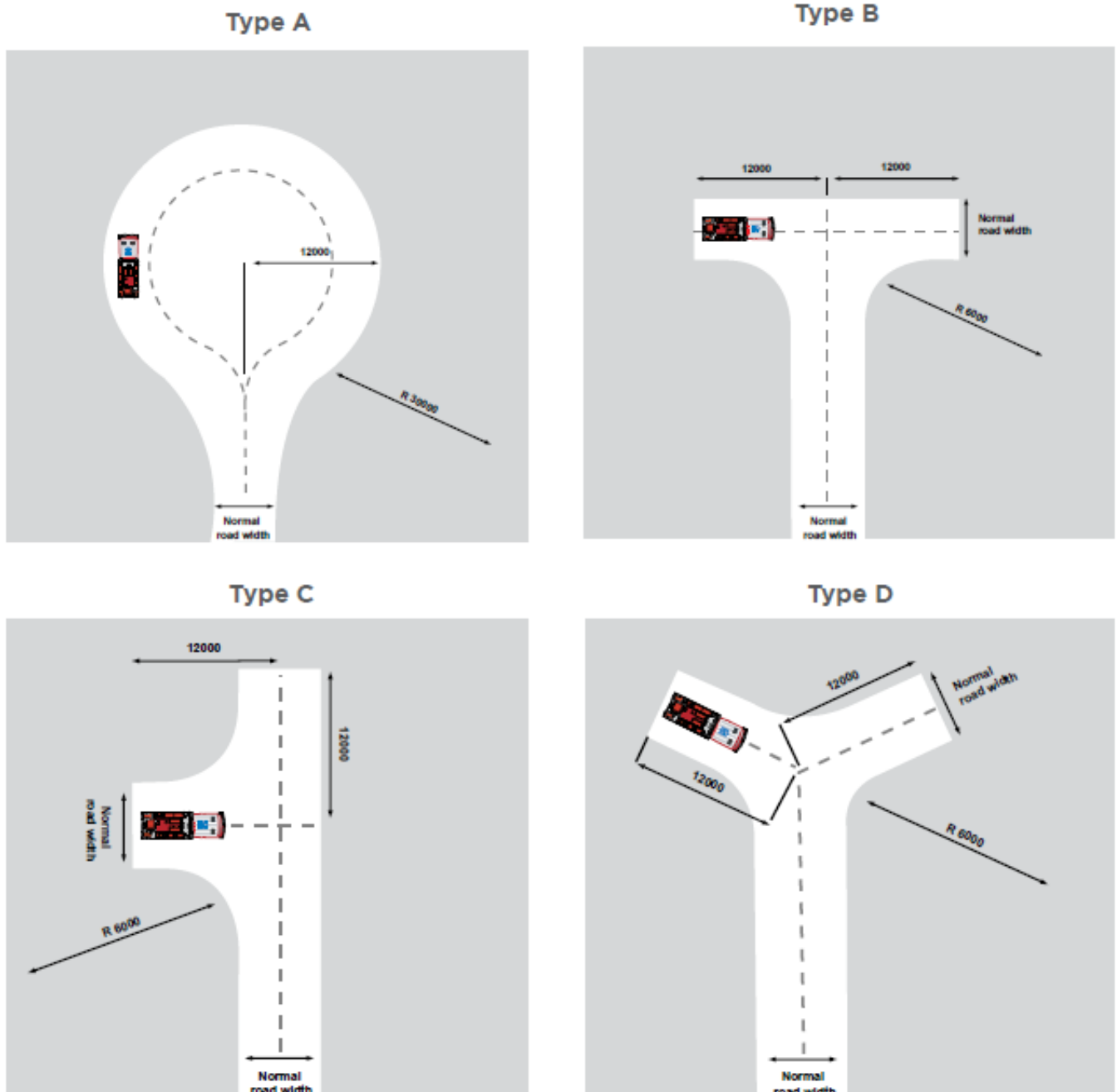
### A3.3 Vehicle turning head requirements

Dead ends that are longer than 200m must be provided with a turning head area that avoids multipoint turns. "No parking" signs are to be erected within the turning head.

The minimum turning radius shall be in accordance with Table A3.2. Where multipoint turning is proposed the NSW RFS will consider the following options:

**Figure A3.3**

Multipoint turning options.





### A3.4 Passing bays

The construction of passing bays, where required, shall be 20m in length and provide a minimum trafficable width at the passing point of 6m.

#### Figure A3.4

Passing bays can provide advantages when designed correctly. Poor design can and does severely impede access.



### A3.9.3 Property access

Property access roads are to be a minimum of 4m wide.

#### Figure A3.9c

Property access road widths.



# Water Supply for Fire Fighting Purposes

This Fast Fact clarifies the NSW Rural Fire Service (RFS) position on the requirement for water supplies for development in bush fire prone areas.

Adequate water supply is critical for effective fire fighting. Where a non reticulated water supply is provided or the reticulated water supply is deemed inadequate, an additional onsite stored supply of water for fire fighting will be required. Non reticulated water is a supply that is not piped by council or a water authority and includes rainwater, ground water or surface water.

In the past, additional water sources could take the form of a static water supply (SWS) or a dedicated water supply. The RFS has traditionally required that an alternate supply of water be 'dedicated' for fire fighting purposes in line with the provisions of *Planning for Bush Fire Protection 2006* (PBP). Dedicated water implies that the supply shall be in the form of a tank of water and has traditionally not included swimming pools or dams. The term also implies that the supply must be isolated from other domestic water supplies and used solely for fire fighting purposes.

From a practical fire fighting point of view, any source of available water will be utilised during a bush fire event and dedicated tanks are not always the most practical option.

In light of the above and the increasing demand for sustainable and efficient use of our water resources, the RFS will no longer require water to be solely 'dedicated' for fire fighting purposes and will allow more flexibility in satisfying the water requirements of PBP. As such, water holding structures such as tanks, swimming pools and dams can be considered.

Therefore, the RFS conditions addressing water supply will no longer refer to a 'dedicated' water supply and will simply state that a supply of water shall be provided for 'fire fighting purposes'. This position will also apply to previously issued conditions referring to dedicated supplies. As such, the water source can be used for other purposes and allow for the circulation of fresh water. The onus will be on the property owner to provide suitable water supply arrangements for fire fighting that meet the RFS requirements and ensure that any water sources are maintained at the appropriate capacity (see Table 4. of PBP).

Water capacities, access (tanker or pedestrian) for fire fighters and the provision of appropriate connections should also be considered when determining if a proposed water source is suitable. Furthermore, the property owner is encouraged to place a 'SWS' sign in a visible location on the street front.

Disclaimer: Any representation, statement opinion, or advice expressed or implied in this publication is made in good faith on the basis that the State of New South Wales, the NSW Rural Fire Service, its agents and employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement or advice referred to above

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