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Proposed Residential Development – 25 Cades Drive, Kingston

Bushfire Hazard Report

Applicant: Anthony Reid

December 2025 J4212v1.0

GEO- ENVIRONMENTAL SOLUTIONS
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Disclaimer

The measures contained in Australian Standard 3959-2018 cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the unpredictable nature and behaviour of fire and extreme weather conditions.

Reasonable steps have been taken to ensure that the information contained within this report is accurate and reflects the conditions on and around the lot at the time of assessment. The assessment has been based on the information provided by you or your designer.

Authorship

This report was prepared by Alice Higgins FPO (planning), BFP - 165 of Geo Environmental Solutions. Base data for mapping: TasMap, Digital and aerial photography: Alice Higgins, GoogleEarth.

1.0 Purpose

This bushfire hazard report is intended to provide information in relation to development in a bushfire-prone area. It will demonstrate compliance with the Building Regulations 2014, and the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), version 2.3 16th July 2024. Provide a certificate of others (Form 55) as specified by the Director of Building Control for bushfire hazard and give guidance by way of a certified Bushfire Hazard Management Plan (BHMP) which shows a means of protection from bushfires in a form approved by the Chief Fire Officer of the Tasmania Fire Service.

2.0 Summary

Site details & compliance

Title reference	10337/17
PID	5763621
Address	25 Cades Drive, Kingston
Applicant	Anthony Reid
Municipality	Kingborough
Planning Scheme	Kingborough Interim Planning Scheme 2015
Zoning	Rural Living
Land size	~2.023Ha
Bushfire Attack Level	BAL-19
Certificate of others (Form 55)	Complete and attached
Bushfire Hazard Management Plan	Certified and attached

The building application for alterations and additions to an existing class 1a habitable building at 25 Cades Drive, Kingston requires demonstrated compliance with the Building Regulations 2014, and the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), version 2.3 16th July 2024. The site is within a bushfire prone area as defined under the Kingborough Interim Planning Scheme 2015. The Bushfire attack level has been determined as BAL-19. Provisions for construction standards, hazard management areas (HMA), property access and water supplies for firefighting will be required as detailed in this report and on the BHMP.

3.0 Introduction

This bushfire hazard report has been completed to form part of supporting documentation for a building permit application for the proposed development. The proposed development site has been identified as being in a bushfire prone area. A site-specific BHMP has been provided for compliance purposes.

4.0 Proposal

The proposal is for alterations and additions to an existing class 1a habitable building at 25 Cades Drive, Kingston. The proposal is at the south-eastern and north-western ends of the existing class 1a building. The proposed class 10a building is no closer than 6 metres to the class 1a habitable building and no closer than 6 metres to another class 10a building that is within 6 metres of the class 1a habitable building. Therefore, Division 2 of the Directors Determination does not apply to the proposed class 10a building and has not been considered in this assessment. This assessment is based on plans provided by the client (Appendix B).

5.0 Bushfire Attack Level (BAL) Assessment

5.1 Methods

The bushfire attack level has been determined through the application of section 2 of AS3959-2018 'Simplified Procedure'. Vegetation has been classified using a combination of onsite observations and remotely sensed data to be consistent with Table 2.3 of AS359-2018. Slope and distances have been determined by infield measurement and/or the use of remotely sensed data (aerial/satellite photography, GIS layers from various sources) analysed with proprietary software systems. Where appropriate vegetation has been classified as low threat.

5.2 Site Description

The proposal is located at 25 Cades Drive, Kingston, in the municipality of Kingborough and is zoned Rural Living under the Kingborough Interim Planning Scheme 2015. Access to the lot will be by an existing crossover from Cades Drive, a council-maintained road. The lot is ~2.023 Ha, is irregular in shape and is located approximately 2.6 km northeast of Parks Hill (Figure 1).

Adjacent lands surrounding the lot are zoned Environmental Living to the north, Rural Resource to the east and Rural Living to the south and west. The site is surrounded by bushfire prone vegetation. At a landscape scale the lot occurs in a natural setting characterised by grassland and native forest vegetation transitioning into large scale native forest further to the north and west. The lot has moderate slopes with a north-easterly aspect which will influence the bushfire attack at the site.

Vegetation surrounding the lot was assessed (Table 1) and described as 'grassland, woodland, and forest' (as per AS3959-2018). The classified vegetation potentially having the greatest impact on the site occurs to the north and west of the site (Figure 2). The vegetation classification system as defined in AS 3959-2018 Table 2.3 and Figure 2.4 (A to H) has been used to determine vegetation types within 100 metres of the site (Table 1).

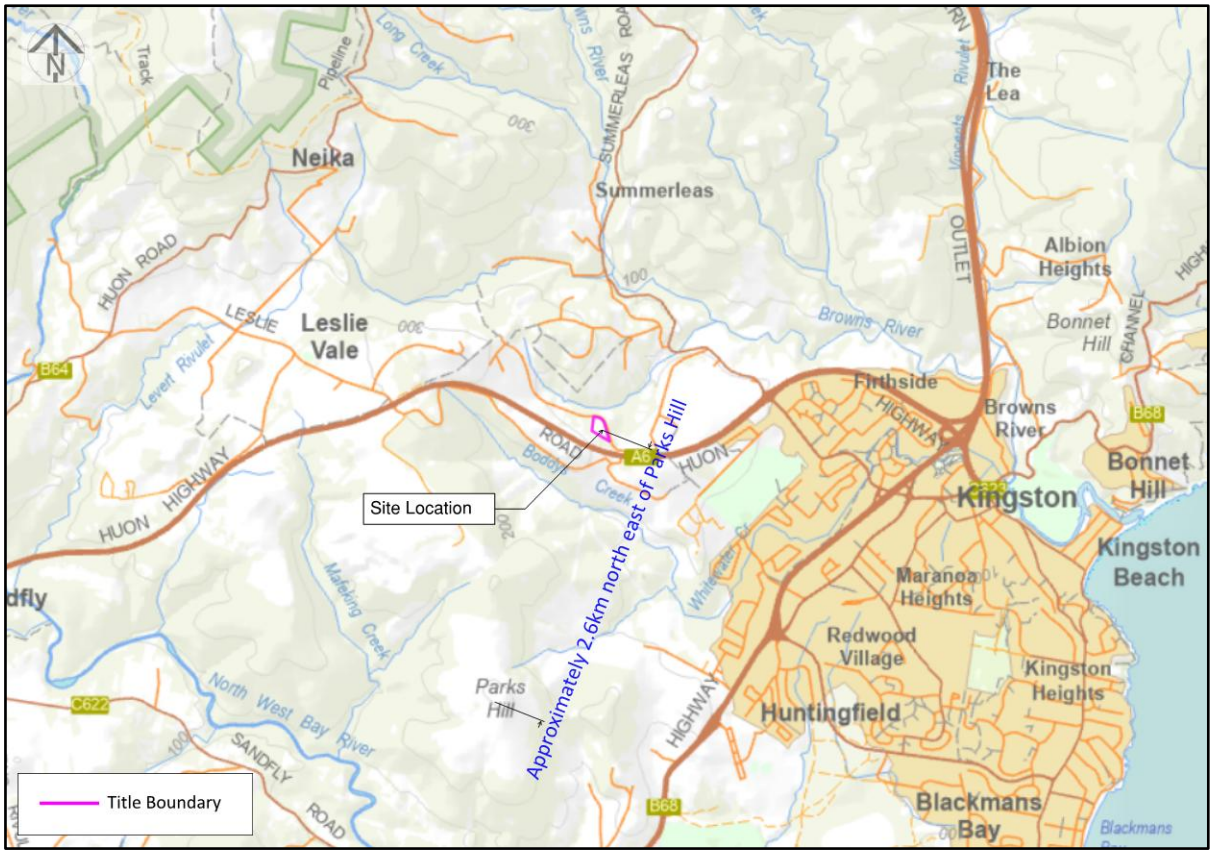


Figure 1. Site location outlined in pink (Image source: LISTmap 2025).

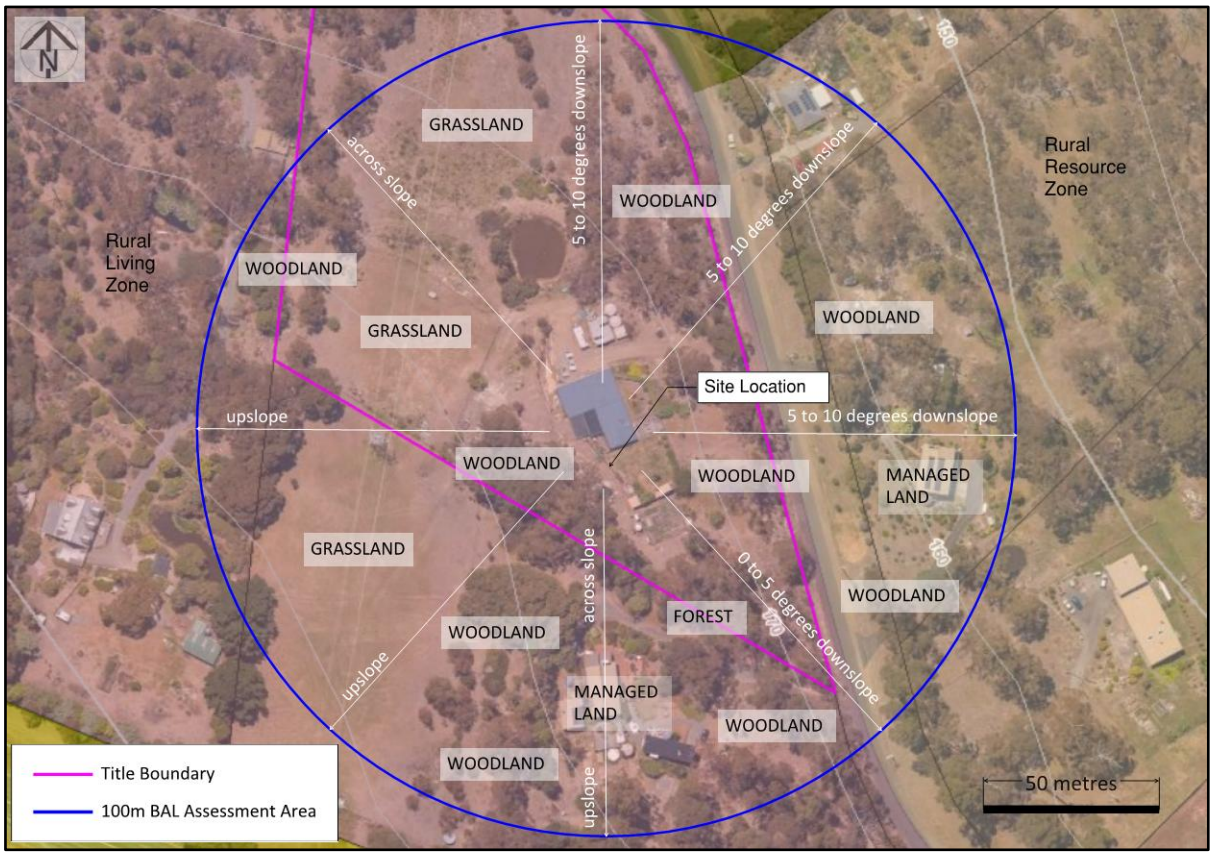


Figure 2. Shows the location of the site (outlined in pink) in the context of the adjacent lands, classified vegetation, and slopes (Image source: LISTmap 2025).

Table 1. Bushfire Attack Level (BAL) Assessment for the proposed alterations and additions to the existing class 1a building

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-Prone Vegetation	Hazard Management Area Width	Bushfire Attack Level
North	Woodland^	>5º to 10º downslope	0 to >100 metres	23 metres	**BAL-19**
	--	--	--		
	--	--	--		
	--	--	--		
North-east	Grassland^	>0 to 5º downslope	0 to 21 metres	23 metres	**BAL-19**
	Woodland^	>5º to 10º downslope	21 to >100 metres		
	--	--	--		
	--	--	--		
East	Woodland^	>5º to 10º downslope	0 to >100 metres	Min 23 metres	**BAL-19**
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland^	flat 0º	0 to 22 metres	27 metres	**BAL-19**
	Forest^	>0 to 5º downslope	22 to >100 metres		
	--	--	--		
	--	--	--		
South	Woodland^	flat 0º	0 to 47 metres	Min 15 metres	**BAL-19**
	Exclusion 2.2.3.2 (e, f)^^	upslope	47 to 80 metres		
	Forest^	upslope	80 to >100 metres		
	--	--	--		
South-west	Woodland^	upslope	0 to >100 metres	15 metres	**BAL-19**
	--	--	--		
	--	--	--		
	--	--	--		
West	Woodland^	upslope	0 to 37 metres	Min 15 metres	**BAL-19**
	Grassland^	upslope	37 to 80 metres		
	Forest^	upslope	80 to >100 metres		
	--	--	--		
North-west	Grassland^	flat 0º	0 to 84 metres	Min 10 metres	**BAL-19**
	Woodland^	flat 0º	84 to >100 metres		
	--	--	--		
	--	--	--		

^ Vegetation classification as per AS3959-2018 and Figures 2.4(A) to 2.4(H).
^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

6.0 Results

The bushfire attack level for the site has been determined as BAL-19. There is a risk of ember attack and burning debris ignited by wind borne embers and a likelihood of exposure to increasing levels of radiant heat at the site. The construction elements are expected to be exposed to a heat flux not greater than 19 kW/m^2.

6.1 Construction Standards

The alterations and additions to the existing class 1a habitable building must be constructed to BAL-19 standards in accordance with Sections 3 and 6 of AS3959-2018.

6.2 Property Access

The existing property access is less than 30 metres long for a fire appliance to access the proposed firefighting water point. In this circumstance there are no specific design or construction requirements for property access in accordance with Table 4.2 Element A of the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), v2.3, 16th July 2024.

If the existing property access length is greater than 30 metres and less than 200 metres long for a fire appliance to access a water connection point then the existing property access must meet the requirements of Clause 4.2 and Table 4.2 Element B of the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), version 2.3, 16th July 2024 as shown below:

- all- weather construction,
- load capacity of at least 20 t, including for bridges and culverts,
- minimum carriageway width of 4 m,
- minimum vertical clearance of 4 m,
- minimum horizontal clearance of 0.5 m from the edge of the carriageway,
- cross falls of less than 3 degrees (1:20 or 5%),
- dips less than 7 degrees (1:8 or 12.5%) entry and exit angle,
- curves with a minimum inner radius of 10 m,
- maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads, and
- terminate with a turning area for fire appliances provided by one of the following:
  - a turning circle with a minimum outer radius of 10m, or
  - a property access encircling the building, or
  - a hammerhead “T” or “Y” turning head 4 m wide and 8 m long

6.3 Water Supplies for Firefighting

The site is not serviced by a reticulated water supply, therefore, a static water supply and associated infrastructure for firefighting is required in accordance with Clause 4.3 and Table 4.3B of the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), version 2.3, 16th July 2024.

Table 2. Requirements for Static Water Supplies dedicated for Firefighting

Element		Requirement
A.	Distance between building area to be protected and water supply	The following requirements apply: (a) The building area to be protected must be located within 90 metres of the firefighting water point of a static water supply; and (b) The distance must be measured as a hose lay, between the firefighting water point and the furthest part of the building area.
B.	Static Water Supplies	A static water supply: (a) May have a remotely located offtake connected to the static water supply, (b) May be a supply for combined use (firefighting and other uses) but the specified minimum quantity of firefighting water must always be available, (c) Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including firefighting sprinkler or spray systems, (d) Must be metal, concrete or lagged by non-combustible materials if above ground, and (e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959:2018, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by: (i) metal, (ii) non-combustible material, or (iii) fibre-cement a minimum of 6 mm thickness.
C.	Fittings, pipework and accessories (including stands and tank supports)	Fittings and pipework associated with a firefighting water point for a static water supply must: (a) Have a minimum nominal internal diameter of 50 mm, (b) Be fitted with a valve with a minimum nominal internal diameter of 50 mm, (c) Be metal or lagged by non-combustible materials if above ground, (d) Where buried, have a minimum depth of 300 mm, (e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to firefighting equipment, (f) Ensure the coupling is always accessible and available for connection, (g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length), (h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table, and (i) Where a remote offtake is installed, ensure the offtake is in a position that is: (i) Visible, (ii) Accessible to allow connection by firefighting equipment, (iii) At a working height of 450 – 600 mm above ground level, and (iv) Protected from possible damage, including damage by vehicles.
D.	Signage for static water connections	The firefighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must: (a) comply with water tank signage requirements within AS 2304:2019, or (b) comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.
E.	Hardstand - A hardstand area for fire appliances must be provided:	(a) No more than three metres from the firefighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like), (b) No closer than six metres from the building area to be protected, (c) With a minimum width of three metres constructed to the same standard as the carriageway, and (d) Connected to the property access by a carriageway equivalent to the standard of the property access.

6.4 Hazard Management Area

A HMA is required to be established and maintained for the life of the development. Guidance for the establishment and maintenance of the HMA is given below and on the BHMP.

A HMA is the area, between a habitable building or building area and the bushfire prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through but is not limited to the following strategies.

- Remove fallen limbs, sticks, leaf and bark litter,
- Maintaining grass at less than a 100mm height,
- Avoid or minimise the use of flammable mulches (especially against buildings),
- Thin out under-story vegetation to provide horizontal separation between fuels,
- Prune low-hanging tree branches (<2 metres from the ground) to provide vertical separation between fuel layers,
- Remove and or prune larger trees to maintain a 6-metre horizontal separation between canopies,
- Minimise the storage of flammable materials such as firewood,
- Maintaining vegetation clearance around vehicular access,
- Use low-flammability plant species for landscaping purposes where possible, and
- Clear out any accumulated leaf and other debris from roof gutters and other debris accumulation points.

HMA Maintenance

The established HMA must be maintained in a minimal fuel state for bushfire protection mechanisms to be effective. The need to maintain an effective HMA into the future must be considered when planting gardens and landscaping. An annual inspection and maintenance of the HMA should be conducted prior to the bushfire season. It is particularly important that any flammable fine fuels at ground level such as leaves, litter and wood piles are suitably managed.

Any additional fire protection measures implemented by the owners such as fire pumps and sprinkler systems must be tested regularly to ensure functionality.

7.0 Compliance

Table 3. Compliance with the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), version 2.3, 16th July 2024.

Requirements	Compliance
4.1 Design & Construction Requirements	Clause 4.1 requires buildings to be constructed in accordance with AS3959-2018 or NASH standard – Steel Framed Construction in Bushfire Areas consistent with the BAL determined for the site. The BHMP specifies construction to BAL-19 standards of AS3959-2018. If the proposed alterations and additions to the existing class 1a habitable building is designed and constructed in accordance with BAL-19 construction standards the development will comply with clause 4.1
4.2 Property Access	Clause 4.2 requires property access to be designed and constructed to comply with Table 4.2 of the determination and is applicable from the public roadway to within (at minimum) 90 metres of the furthest part of the building/s and includes access to a hardstand for the firefighting water point. Existing property access is less than 30 metres long to access a static firefighting water point. In this circumstance there are no specific design or construction requirements for property access. If property access is greater than 30 metres and less than 200 metres long in length to access a static firefighting water point, design and construction requirements specified in this report are required for compliance with Table 2. If the requirements of section 6.2 of this report are implemented the proposal will comply with clause 4.2
4.3 Water Supply for Firefighting	Clause 4.3 requires that a new building constructed in a bushfire-prone area is provided with a dedicated firefighting water supply in accordance with Tables 4.3A or 4.3B. Static water supplies consistent with Table 4.3B have been specified in this report and are required for compliance on the BHMP. If the requirements of section 6.3 of this report are implemented the proposal will comply with clause 4.3.
4.4 Hazard Management Areas	Clause 4.4 requires that new buildings in bushfire-prone areas are provided with an HMA which is compliant with Table 4.4. The HMA must have the minimum separation distances required for the BAL determined for the site and, have an HMA established which reduces fuels and other hazards so that fuels and other hazards do not significantly contribute to the bushfire attack. HMA's are shown on the BHMP and are specified to the minimum widths required to achieve BAL-19 for the site. This report and the BHMP specify requirements for hazard management areas. If the HMA's are established in accordance with the BHMP the proposal will comply with clause 4.4
4.5 Emergency Plan	The proposal is for alterations and additions to the existing class 1a building and therefore in this circumstance Emergency Plans are not required for compliance.

8.0 Guidance

The defendable space (HMA) around a building is critical for providing occupants and/or fire fighters with safe access to the building in order that firefighting activities may be undertaken. The larger the defendable space, the safer it will be for those defending the structure. Some desirable characteristics of a hazard management area are:

- The area directly adjacent to the building has a significant amount of flammable material removed such that there is little to no material available to burn around the building,
- Includes non-flammable areas such as paths, driveways, managed lawns,
- Establishment of orchards, vegetable gardens, dams or wastewater effluent disposal areas on the fire prone side of the building,
- Creating wind breaks and radiation shields such as non-combustible fences and low flammability hedges, and
- It is not necessary to remove all vegetation from the defendable space, trees can provide protection from wind borne embers and radiant heat in some circumstances.

9.0 Further Information

For further information on preparing yourself and your property for bushfires visit the Tasmania Fire Service website at www.fire.tas.gov.au or phone 1800 000 699 for information on:

- Preparing a bushfire survival plan
- Preparing yourself and your home for a bushfire
- Guidelines for development in bushfire prone areas in Tasmania
- Fire resisting plants for the urban fringe and rural areas
- Using fire outdoors
- Fire permits
- Total fire bans
- Bushfires burning in Tasmania

10.0 Glossary and Abbreviations

AS – Australian Standard

BAL – Bushfire Attack Level – A means of measuring the severity of a building's potential exposure to ember attack, radiant heat, and direct flame contact, using increments of radiant heat expressed in kilowatts per metre squared, and the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire (AS3959-2018).

BFP – Bushfire Practitioner – An accredited practitioner recognised by Tasmania Fire Service.

BHMP – Bushfire Hazard Management Plan – A plan for an individual habitable building or subdivision identifying separation distances required between a habitable building(s) and bushfire-prone vegetation based on the BAL for the site. The BHMP also indicates requirements for construction, property access and firefighting water.

Class 1a building – A single habitable building, being a detached house, or one of a group of attached habitable buildings being a town house, row house or the like (NCC 2022).

deg – degrees

FDI – fire danger index – Relates to the chance of a fire starting, its rate of spread, its intensity, and the difficulty of its suppression, according to various combinations of air temperature, relative humidity, wind speed and both the long- and short-term drought effects (AS3959-2018).

ha – hectares

HMA – Hazard Management Area – The area, between a habitable building or building area and the bushfire-prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire.

km - kilometres

m – metres

mm – millimetres

NASH – National Association of Steel Framed Housing

t – tonnes

11.0 References

Australian Building Codes Board, National Construction Code, Building Code of Australia, Australian Building Codes Board, Canberra.

Building Act 2016. The State of Tasmania Department of Premier and Cabinet.

Building Regulations 2014. The State of Tasmania Department of Premier and Cabinet.

Building Regulations 2016. The State of Tasmania Department of Premier and Cabinet.

Directors Determination – Requirements for Building in Bushfire-Prone Areas (transitional), version 2.3 16th July 2024. Director of Building Control.

LISTmap 2025. Land Information System Tasmania, Tasmania Government.

Standards Australia, AS3959-2018 Construction of buildings in bushfire-prone areas. Sydney, NSW., Australia.

Tasmania Fire Service 2020, Building for Bushfire – Planning and Building in Bushfire-Prone Areas for Owners and Builders. Tasmania Fire Service, Tasmania.

Kingborough Interim Planning Scheme 2015, Tasmanian Planning Commission, Hobart.

12.0 Limitations Statement

This bushfire hazard report has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and the applicant named in section 2. To the best of GES's knowledge, the information presented herein represents the client's requirements at the time of printing of the report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from that described in this report. In preparing this report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations referenced herein. Except as otherwise stated in this report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible bushfire hazard condition and does not provide a guarantee that no loss of property or life will occur as a result of bushfire. As stated in AS3959-2018 “It should be borne in mind that the measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions”. In addition, no responsibility is taken for any loss which is a result of actions contrary to AS3959-2018 or the Tasmanian Planning Commission Bushfire code.

This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required. No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third party.

Appendix A - Site Photos

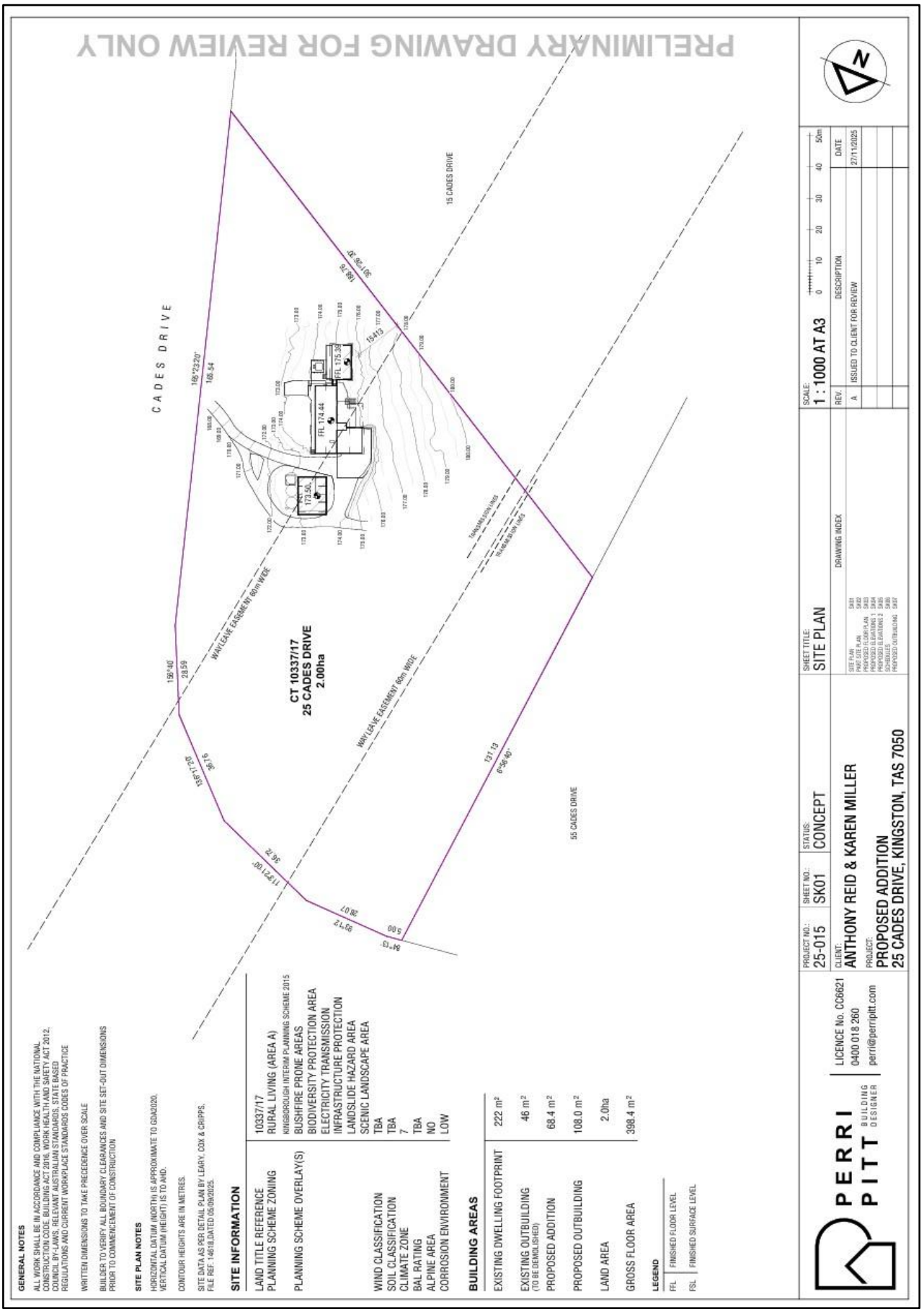
Figure 3. Northern azimuth from the site of the proposed development looking at woodland 5 to 10 degrees downslope.

Figure 4. Eastern azimuth from the site of the proposed development looking at woodland 5 to 10 degrees downslope.

Figure 5. Southeastern azimuth from the site of the proposed development looking at forest 0 to 5 degrees downslope.

Figure 6. South - western azimuth from the site of the proposed development looking at woodland upslope.

Appendix B – Site Plan



Attachment 1

BUSHFIRE HAZARD MANAGEMENT PLAN

25 Cades Drive, Kingston. December 2025. J4212v1.0

Kingborough Interim Planning Scheme 2015

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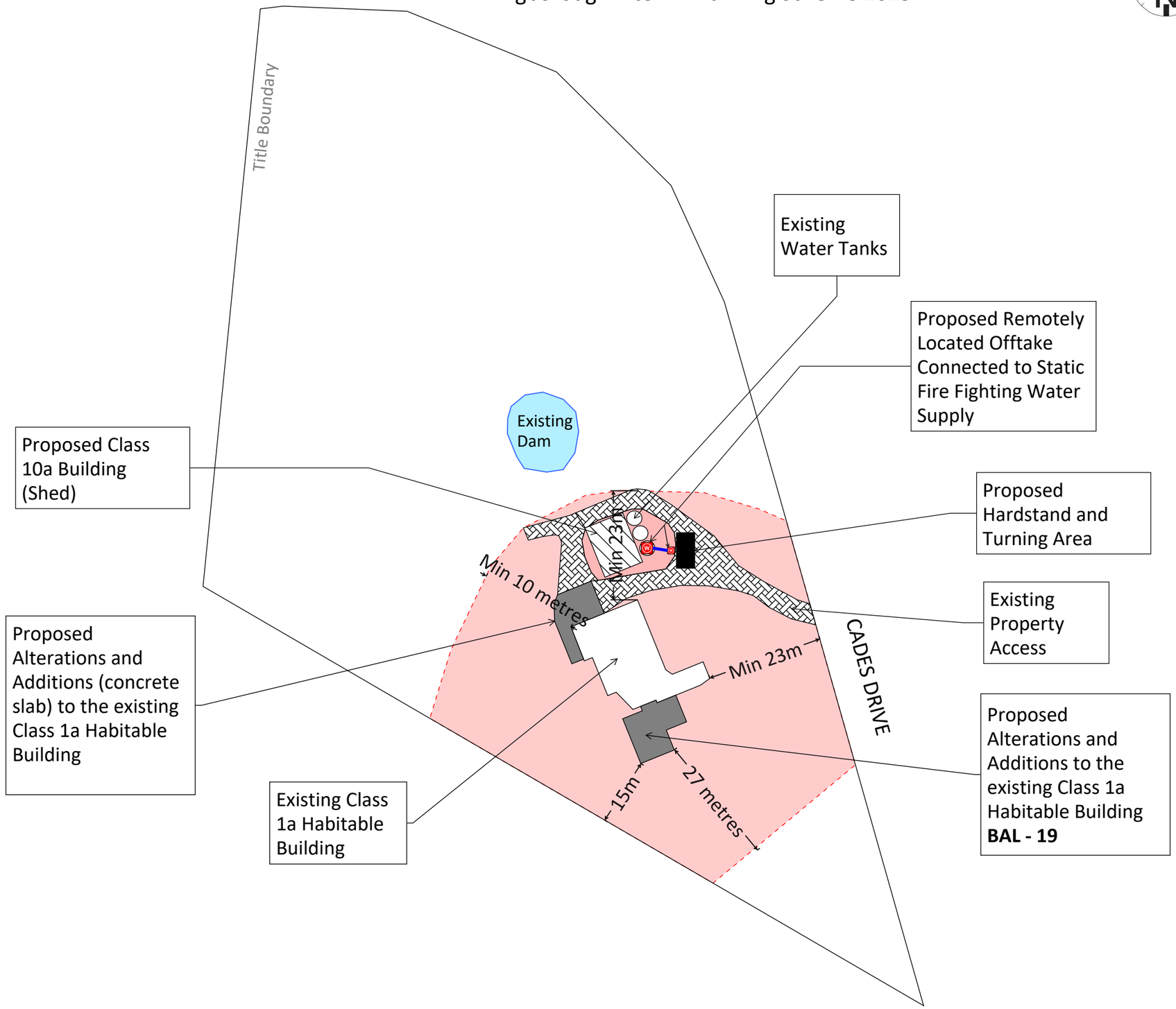

- Proposed Alterations and Additions to the Existing Class 1a Habitable Building
- Existing Class 1a Habitable Building
- Proposed Class 10a Building
- Existing Property Access
- Hazard Management Area
- Proposed Hardstand and Turning Area
- Proposed Static Fire Fighting Water Supply and Remotely Located Offtake Connection Point
- Proposed Associated Pipework for Static Fire Fighting Water Supply and Remotely Located Offtake Connection Point

Building Specifications to **BAL-19** for the proposed alterations and additions to the existing class 1a habitable building of AS3959-2018

Certification No. J4212

Alice Higgins
Acc. No. BFP-165
Scope 1, 2, 3A, 3B, 3C.

Do not scale from these drawings. Dimensions to take precedence over scale. Written specifications to take precedence over diagrammatic representations.	Client Name and Address: Anthony Reid c/o 25 Cades Drive Kingston, TAS, 7050	C.T.: 10337/17 PID: 5763621	The Bushfire Hazard Management Plan is to be printed at A3 in colour and read in conjunction with the Bushfire Hazard Report for the proposed alterations and additions to the existing class 1a habitable building at 25 Cades Drive, Kingston (GES, 9th December 2025, J4212v1.0)	Drawing Number: A01	Sheet 1 of 2 Prepared by: Alice Higgins

Attachment 1

BUSHFIRE HAZARD MANAGEMENT PLAN

25 Cades Drive, Kingston. December 2025. J4212v1.0
Kingborough Interim Planning Scheme 2015

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Design and Specification Requirements

Requirements for Construction

The proposed alterations and additions to the existing class 1a habitable building must be constructed to BAL-19 standards in accordance with Sections 3 and 6 of AS3959-2018.

Requirements for Property Access

The existing property access is less than 30 metres long for a fire appliance to access the proposed fire fighting water point. In this circumstance there are no specific design or construction requirements for property access in accordance with Table 4.2 Element A of the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), v2.3, 16th July 2024.

If the existing property access length is greater than 30 metres and less than 200 metres long for a fire appliance to access a water connection point then the existing property access must meet the requirements of Table 4.2 Element B of the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), version 2.3, 16th July 2024 as shown below:

The following design and construction requirements apply to property access:
(1) All-weather construction;
(2) Load capacity of at least 20 tonnes, including for bridges and culverts;
(3) Minimum carriageway width of 4 metres;
(4) Minimum vertical clearance of 4 metres;
(5) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
(6) Cross falls of less than 3° (1:20 or 5%);
(7) Dips less than 7° (1:8 or 12.5%) entry and exit angle;
(8) Curves with a minimum inner radius of 10 metres;
(9) Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed roads; and
10) Terminate with a turning area for fire appliances provided by one of the following:
(a) A turning circle with a minimum inner radius of 10 metres;
(b) A property access encircling the building; or
(c) A hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long.

Requirements for Static Water Supply for Fire fighting

The site is not serviced by a reticulated water supply, therefore a dedicated, static fire fighting water supply will be provided in accordance with the following;

Static water supplies and associated infrastructure for fire fighting purposes will be provided in accordance with Table 4.3B of the Directors Determination - Requirements for Building in Bushfire Prone Areas (transitional), version 2.3, 16th July 2024.

A Distance between building area to be protected and water supply
The following requirements apply:
(a) The building area to be protected must be located within 90 metres of the fire fighting water point of a static water supply; and
(b) The distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.

B) Static Water Supplies
A static water supply:
(a) May have a remotely located offtake connected to the static water supply;
(b) May be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;
(c) Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;
(d) Must be metal, concrete or lagged by non-combustible materials if above ground; and
(e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by:
(i) metal;
(ii) non-combustible material; or
(iii) fibre-cement a minimum of 6 mm thickness.

Requirements for Static Water Supply for Fire fighting

C) Fittings and pipework associated with a fire fighting water point for a static water supply must:
(a) Have a minimum nominal internal diameter of 50mm; (2) Be fitted with a valve with a minimum nominal internal diameter of 50mm;
(b) Be fitted with a valve with a minimum nominal internal diameter of 50mm;
(c) Be metal or lagged by non-combustible materials if above ground;
(d) Where buried, have a minimum depth of 300mm (compliant with AS/NZS 3500.1-2003 Clause 5.23);
(e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment;
(f) Ensure the coupling is accessible and available for connection at all times;
(g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length);
(h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and
(i) Where a remote offtake is installed, ensure the offtake is in a position that is:
(i) Visible;
(ii) Accessible to allow connection by fire fighting equipment,
(iii) At a working height of 450 – 600mm above ground level; and
(iv) Protected from possible damage, including damage by vehicles.

D) Signage for static water connections
The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service

E) Hardstand
A hardstand area for fire appliances must be provided:
(a) No more than three metres from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);
(b) No closer than six metres from the building area to be protected;
(c) With a minimum width of three metres constructed to the same standard as the carriageway; and
(d) Connected to the property access by a carriageway equivalent to the standard of the property access.

Requirements for Hazard Management Area

A hazard management area is required to be established and maintained for the life of the building and is shown on this BHMP. Guidance for the establishment and maintenance of the hazard management area is also provided.
A hazard management area is the area, between a habitable building or building area and the bushfire prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through, but is not limited to the following actions;

- Remove fallen limbs, sticks, leaf and bark litter;
- Maintain grass at less than a 100mm height;
- Remove pine bark and other flammable mulch (especially from against buildings);
- Thin out under-story vegetation to provide horizontal separation between fuels;
- Prune low-hanging tree branches (<2m from the ground) to provide (vertical separation between fuel layers;
- Prune larger trees to maintain a 6 metre horizontal separation between canopies;
- Minimise the storage of flammable materials such as firewood;
- Maintain vegetation clearance around vehicular access and water supply points;
- Use low-flammability species for landscaping purposes where appropriate;
- Clear out any accumulated leaf and other debris from roof gutters and other accumulation points.

It is not necessary to remove all vegetation from the hazard management area, trees may provide protection from wind borne embers and radiant heat under some circumstances.

Certification No. J4212
Alice Higgins
Acc. No. BFP-165
Scope 1, 2, 3A, 3B, 3C.

Do not scale from these drawings. Dimensions to take precedence over scale. Written specifications to take precedence over diagrammatic representations.	Client Name and Address: Anthony Reid c/o 25 Cades Drive Kingston, TAS, 7050	C.T.: 10337/17 PID: 5763621	The Bushfire Hazard Management Plan is to be printed at A3 in colour and read in conjunction with the Bushfire Hazard Report for the proposed alterations and additions to the existing class 1a habitable building at 25 Cades Drive, Kingston (GES, 9th December 2025, J4212v1.0)	Drawing Number: A01	Sheet 2 of 2 Prepared by: Alice Higgins

Attachment 2

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Anthony Reid *Owner /Agent*
c/o 25 Cades Drive *Address*
Kingston, TAS 7050 *Suburb/postcode*

Qualified person details:

Qualified person: Alice Higgins
Address: 29 Kirksway Place
Battery Point, TAS 7004
Phone No: 03 6223 1839
Fax No:
Licence No: BFP-165
Email address: ahiggins@geosolutions.net.au

Qualifications and Insurance details: Accredited to report on bushfire hazards under Part IVA of the Fire Service Act. BFP-165 scope 1, 2, 3a, 3b. Pantheon Insurance PI policy No. 17080170

(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: Analysis of bushfire hazards in bushfire prone areas

(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: 25 Cades Drive
Kingston, TAS 7050
Lot No: 17
Certificate of title No: 10337

The assessable item related to this certificate: Alterations and additions to an existing class 1a habitable building in a bushfire prone area.

(description of the assessable item being certified)
Assessable item includes –
- *a material;*
- *a design*
- *a form of construction*
- *a document*
- *testing of a component, building system or plumbing system*
- *an inspection, or assessment, performed*

Certificate details:

Certificate type: Bushfire Hazard

(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable items, at any stage, as part of – *(tick one)*

Attachment 2

☒ building work, plumbing work or plumbing installation or demolition work

OR

○ a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:	Bushfire Hazard Report for 25 Cades Drive, Kingston, 9th December 2025, J4212v1.0. Bushfire Hazard Management Plan for 25 Cades Drive, Kingston, 9th December 2025, J4212v1.0. And Form 55
Relevant calculations:	BAL assessed as per AS3959-2018 for the alterations and additions to an existing class 1a habitable building identified in the BHMP
References:	AS3959-2018 Construction of Buildings in Bushfire-prone Areas Building Regulations 2014 National Construction Code (NCC) – Vol. 2 Directors Determination Requirements for Building in Bushfire Prone Areas (transitional), v2.3, 16th July 2024

Substance of Certificate: (what it is that is being certified)

Bushfire Attack Level Assessment in accordance with AS3959-2018 and determination of other mitigation measures as required by the relevant Directors Determination as cited in the Bushfire Hazard Report and on the BHMP.
Design and construction for the alterations and additions to an existing class 1a habitable building must be to a minimum standard of **BAL-19** (sections 3 and 6 of AS3959-2018).

Scope and/or Limitations

Scope: The bushfire hazard assessment was undertaken at the site to determine whether there is sufficient risk to the class 1a habitable dwelling from bushfire to warrant specific bushfire hazard management measures.
Limitations:
The assessment relates to bushfire hazard only.
The assessor has taken all reasonable steps to ensure that the information provided in this assessment is accurate and reflects the conditions on and around the site and allotment on the date of this assessment.
The recommendations made in the bushfire hazard assessment are based on the conditions of the site at the time of the assessment. No liability will be accepted by the assessor for actions undertaken by the owners or others that compromise the effectiveness of the measures outlined in this assessment.
The effectiveness of the bushfire safety measures outlined in the assessment are reliant on their implementation and ongoing maintenance.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:		J4212	9/12/2025