GES

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Proposed Residential Development – 47 Summerleas Road, Kingston

Bushfire Hazard Report

Applicant: Phillip Lighton Architects

September 2024 J10811v1

GEO- ENVIRONMENTAL SOLUTIONS
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Contents

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 Mark Van den Berg BSc. (Hons.) FPO (planning) of Geo Environmental Solutions. Base data for mapping: TasMap, Digital and aerial photography: Mark Van den Berg, GoogleEarth.

1.0 Purpose

This bushfire hazard report is intended to provide information in relation to building in a bushfire-prone area. It will demonstrate compliance with the *Directors Determination – Bushfire Hazard 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 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	181193/1
PID	9425773
Address	47 Summerleas Road, Kingston
Applicant	Philip Lighton Architects
Municipality	Kingborough
Planning Scheme	Kingborough Interim Planning Scheme 2015
Zoning	General Residential
Land size	~1.3 Ha
Bushfire Attack Level	BAL-29
Certificate of others (form 55)	Complete and attached
Bushfire Hazard Management Plan	Certified & Attached

Construction of twenty new class 1a buildings at 47 Summerleas Road, Kingston requires demonstrated compliance with the *Directors Determination – Bushfire Hazard Areas (transitional), version 2.3, 16th July 2024*, the site is located in a bushfire prone area. The Bushfire attack level has been determined as 'BAL-29', provisions for property access, water supplies for firefighting, hazard management areas and construction standards will be required as detailed in this report and the Bushfire Hazard Management Plan (BHMP).

3.0 Introduction

This bushfire hazard report has been completed to form part of supporting documentation for a building permit application for the construction of twenty new class 1a buildings. The proposed development site has been identified as being in a bushfire prone area. A site-specific bushfire hazard management plan has been provided for compliance purposes.

4.0 Proposal

The proposal is for the construction of twenty new class 1a buildings and associated property access and the provision of firefighting water supplies at 47 Summerleas Road, Kingston (appendix A).

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 47 Summerleas Road, Kingston, in the municipality of Kingborough and is zoned General Residential under the Kingborough Interim Planning Scheme 2015. Access to the lot will be by an existing crossover from Summerleas Road, a council-maintained road. The lot is ~1.3 Ha, is irregular in shape and is located approximately ~3km north-east of Doctors Hill adjacent to the Southern Outlet (Figure 1). The lot is serviced by a sealed through road and a reticulated water supply system. The sites occur within a native vegetation remnant between the riparian corridor of Whitewater Creek and the Road Reserve casement of the Southern Outlet, both areas carry significant forest and woodland vegetation despite urban and infrastructure development. Adjacent lands to the north-west, south-west and south-east of the sites are zoned environmental management, carry forest vegetation and are owned by either Kingborough Council or the Crown. Land to the north-east of the site is private freehold land and carries residential development and associated low threat vegetation. Adjacent bushfire-prone vegetation does not have any credible linkages to landscape scale bushfire-prone vegetation units. The lot has gentle slopes with a north-westerly aspect which in this circumstance, is unlikely to influence the bushfire attach at the site once hazard management areas are established.

Vegetation surrounding the lot was assessed (Table 1) and described as forest or excluded from the assessment as low threat vegetation (as per AS3959-2018). The classified vegetation potentially having the greatest impact on the site occurs to the south-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. The lot in a topographical context (lot outlined in pink).

Figure 2. Shows the approximate location of the lot (pink line) in the context of the adjacent lands and classified vegetation .

Table 1. Bushfire Attack Level (BAL) Assessment – Building area for Units 1 to 14 (as shown in appendix C)

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Exclusion 2.2.3.2 (e, f)^^	>0 to 5º downslope	0 to 100 metres	Title boundary	**BAL-LOW**
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Exclusion 2.2.3.2 (e, f)^^	flat 0º	0 to 16 metres	16 metres	**BAL-29**
	Forest^	flat 0º	16 to 66 metres		
	Exclusion 2.2.3.2 (e, f)^^	flat 0º	66 to 100 metres		
	--	--	--		
South-west	Exclusion 2.2.3.2 (e, f)^^	flat 0º	0 to 16 metres	16 metres	**BAL-29**
	Forest^	flat 0º	16 to 100 metres		
	--	--	--		
	--	--	--		
North-west	Exclusion 2.2.3.2 (e, f)^^	>0 to 5º downslope	0 to 60 metres	Title boundary	**BAL-12.5**
	Forest^	>0 to 5º downslope	60 to 100 metres		
	--	--	--		
	--	--	--		

^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).
* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.
^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 2. Bushfire Attack Level (BAL) Assessment – Building area for Units 15 to 20 (as shown in appendix C).

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Exclusion 2.2.3.2 (e, f)^^	>0 to 5º downslope	0 to 100 metres	Title boundary	**BAL-LOW**
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Exclusion 2.2.3.2 (e, f)^^	flat 0º	0 to 44 metres	Title boundary	**BAL-12.5**
	Forest^	flat 0º	44 to 94 metres		
	Exclusion 2.2.3.2 (e, f)^^	flat 0º	94 to 100 metres		
	--	--	--		
South-west	Exclusion 2.2.3.2 (e, f)^^	flat 0º	0 to 19 metres	16 metres	**BAL-29**
	Forest^	flat 0º	19 to 100 metres		
	--	--	--		
	--	--	--		
North-west	Exclusion 2.2.3.2 (e, f)^^	>0 to 5º downslope	0 to 19 metres	19 metres	**BAL-29**
	Forest^	>0 to 5º downslope	19 to 100 metres		
	--	--	--		
	--	--	--		

^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).
* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.
^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

6.0 Results

The bushfire attack level for the building areas has been assessed and classified as BAL-29, indicating a high-risk profile. The site will be susceptible to ember attack and experience high levels or radiant heat exposure when subject to bushfire attack. The construction components of the building are expected to withstand a maximum heat flux of 29 kW/m2.

6.1 Property Access

Property access length is greater than 30 metres and access is for 3 or more properties. The following minimum design and construction requirements apply to property access:

(a) All-weather construction;

(b) Load capacity of at least 20 tonnes, including for bridges and culverts;

(c) Minimum carriageway width of 4 metres;

(d) Minimum vertical clearance of 4 metres;

(e) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;

(f) Cross falls of less than 3° (1:20 or 5%);

(g) Dips less than 7° (1:8 or 12.5%) entry and exit angle;

(h) Curves with a minimum inner radius of 10 metres;

(i) Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed roads; and

(j) Terminate with a turning area for fire appliances provided by one of the following:

(i) A turning circle with a minimum outer radius of 10 metres;

(ii) A property access encircling the building; or

(iii) A hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long

(k) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 100 metres.

6.2 Water supplies for fire fighting

Firefighting water supplies will be provided in accordance with the following minimum requirements.

Table 3. Requirements for Reticulated Water Supply for Firefighting.

Column 1		Column 2
Element		Requirement
A	Distance between building to be protected and water supply	The following requirements apply: (a) the building to be protected must be located within 120 metres of a fire hydrant; and (b) the distance must be measured as a hose lay, between the firefighting water point and the furthest part of the building.
B	Design criteria for	The following requirements apply:

Column 1		Column 2
Element		Requirement
	proposed fire hydrants	(a) fire hydrant system must be designed and constructed in accordance with TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA Edition 2.0 as amended from time to time; and (b) fire hydrants are to be installed outside of the minimum access road width, and clear of any passing bay or parking area, to ensure access at all times to reticulated water for fire suppression.
C	Hardstand associated with proposed fire hydrants	A hardstand area for fire appliances must be provided: (a) no more than thirty metres from the hydrant, measured as a hose lay; (b) no closer than six metres from the building to be protected; (c) with a minimum width of three metres and a minimum length of six 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.

6.3 Hazard management area.

A hazard management area will need to be established and maintained for the life of the development and is shown on the BHMP. Guidance for the establishment and maintenance of the hazard management area is given below and on the BHMP.

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 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 (<2m from the ground) to provide vertical separation between fuel layers;
- Remove and or prune larger trees to maintain 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;
- Clear out any accumulated leaf and other debris from roof gutters and other debris accumulation points.

7.0 Compliance

Table 2. Compliance with the Directors Determination – Bushfire Hazard Areas (transitional), version 2.3, 16th July 2024.

Requirements	Compliance
4.1 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-29 standards of AS3959-2018. If the proposed buildings are designed and constructed in accordance with BAL-29 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. Property access length is greater than 30 metres and access is for 3 or more properties. Design and construction requirements are specified within this report and are required for compliance on the BHMP The proposal is compliant 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. Reticulated water supplies consistent with table 4.3A are required to achieve compliance and are specified in the report and on the BHMP. If the requirements of section 6.2 of this report and BHMP 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-29 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 the construction of a new class 1a buildings, therefore, in this circumstance Emergency Plans are not required for compliance.

8.0 Guidance

The defendable space (hazard management area) 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, manicured 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;
- 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 References

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

Building Amendment (Bushfire-Prone Areas) Regulations 2016

Directors Determination – Bushfire Hazard Areas (transitional) version 2.3. 16th July 2024. Consumer, Building and Occupational Services, Department of Justice, Tasmania.

The Bushfire Planning Group 2005, *Guidelines for development in bushfire prone areas of Tasmania – Living with fire in Tasmania,* Tasmania Fire Service, Hobart.

Tasmania Fire Service 2013, *Building for Bushfire – Planning and Building in Bushfire-Prone Areas for Owners and Builders*.

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

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

11.0 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 Images

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Figure 1. North-eastern azimuth from the site.

Figure 2. South-eastern azimuth from the site.

Figure 3. South-western azimuth from the site.

Figure 4. North-western azimuth from the site.

Appendix B - Site Plan

Appendix C – Building areas for BAL assessment

BUSHFIRE HAZARD MANAGEMENT PLAN

Bushfire Hazard Management Plan, 47 Summerleas Road, Kingston. September 2024. J10811v1.
Kingborough Interim Planning Scheme 2015

GEO-ENVIRONMENTAL SOLUTIONS
29 Kirksway Place, Battery Point.
T| 62231839 E| office@geosolutions.net.au

Compliance Requirements

Property Access

Property access length is greater than 30 metres and access is for 3 or more properties. The following minimum design and construction requirements apply to property access:
The following design and construction requirements apply to property access:
(a) All-weather construction;
(b) Load capacity of at least 20 tonnes, including for bridges and culverts;
(c) Minimum carriageway width of 4 metres;
(d) Minimum vertical clearance of 4 metres;
(e) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
(f) Cross falls of less than 3° (1:20 or 5%);
(g) Dips less than 7° (1:8 or 12.5%) entry and exit angle;
(h) Curves with a minimum inner radius of 10 metres;
(i) Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed roads; and
(j) Terminate with a turning area for fire appliances provided by one of the following:
(i) A turning circle with a minimum outer radius of 10 metres;
(ii) A property access encircling the building; or
(iii) A hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long
(k) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 100 metres.

Water Supplies for Firefighting

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

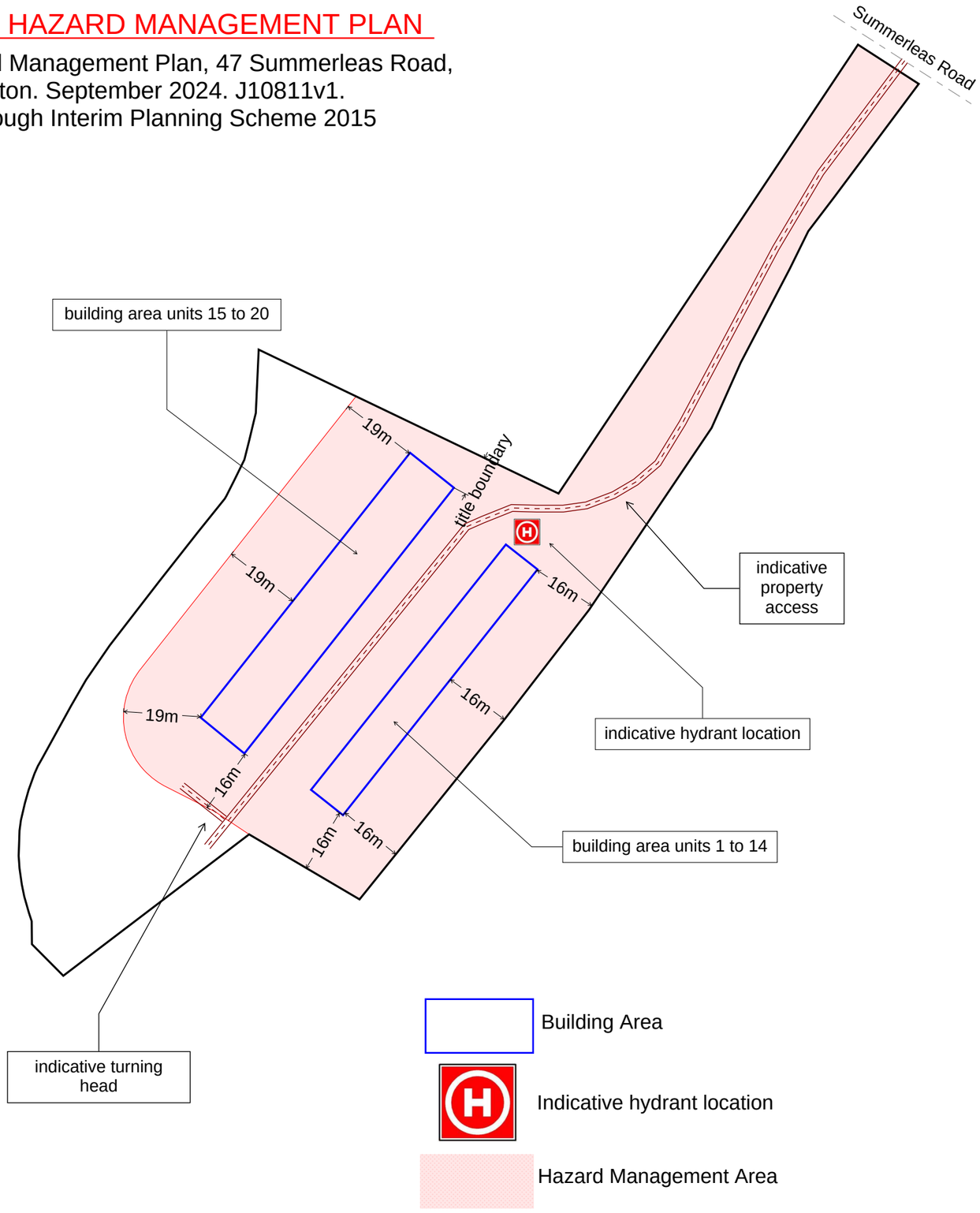
A) Distance between building to be protected and water supply.
The following requirements apply:
(a) the building to be protected must be located within 120 metres of a fire hydrant; and
(b) the distance must be measured as a hose lay, between the firefighting water point and the furthest part of the building.

B) Design criteria for proposed fire hydrants.
The following requirements apply:
(a) fire hydrant system must be designed and constructed in accordance with TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA Edition 2.0 as amended from time to time; and
(b) fire hydrants are to be installed outside of the minimum access road width, and clear of any passing bay or parking area, to ensure access at all times to reticulated water for fire suppression.

C) Hardstand associated with proposed fire hydrants.
A hardstand area for fire appliances must be provided:
(a) no more than thirty metres from the hydrant, measured as a hose lay;
(b) no closer than six metres from the building to be protected;
(c) with a minimum width of three metres and a minimum length of six 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.

Hazard Management Areas

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.



Building Specifications to BAL-29 of AS3959-2018

Hazard Management Area

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 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. J10811

Mark Van den Berg
Acc. No. BFP-108
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.	Homes Tasmania GPO Box 65, Hobart, Tasmania 7001	C.T.: 181193/1 PID: 9425773	Date : 23/09/2024	Bushfire Hazard Management Plan 47 Summerleas Road, Kingston. September 2024. J10811v1. Bushfire Hazard Report 47 Summerleas Road, Kingston. September 2024. J10811v1.	Drawing Number: A01	Sheet 1 of 1 Prepared by: MvdB

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Philp Lighton Architects P/L *Owner /Agent*

49 Sandy Bay Rd *Address*

Hobart 7000 *Suburb/postcode*

Qualified person details:

Qualified person: Mark Van den Berg

Address: 29 Kirksway Place

Battery Point TAS 7004

Phone No: 03 6223 1839

Fax No:

Licence No: BFP-108

Email address: mvandenberg@geosolutions.net.au

Qualifications and Insurance details: Accredited to report on bushfire hazards under Part IVA of the Fire Service Act.
BFP-108 scope 1, 2, 3a, 3b, 3c.
Sterling 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: 47 Summerleas Road

Kingston 7050

Lot No:

Certificate of title No: 181193/1

The assessable item related to this certificate: New building work 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 item, at any stage, as part of - *(tick one)*

building work, plumbing work or plumbing installation or demolition work: [X]

or

a building, temporary structure or plumbing installation: [ ]

In issuing this certificate the following matters are relevant –

Documents:	The attached Bushfire Hazard Report and Bushfire Hazard Management Plan for the address detailed above in 'details of work'
Relevant calculations:	Reference the above report.
References:	AS3959-2018 Construction of Buildings in Bushfire-prone Areas. Directors Determination for: Bushfire Hazard Areas v1.1 or Requirements for Building in Bushfire-prone Areas (transitional) v2.2

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.

Scope and/or Limitations

Scope: This report was commissioned to identify the Bushfire Attack Level for the existing property. Limitations: The inspection has been undertaken and report provided on the understanding that;-1. The report only deals with the potential bushfire risk all other statutory assessments are outside the scope of this report. 2. The report only identifies the size, volume and status of vegetation at the time the site inspection was undertaken. 3. Impacts of future development and vegetation growth have not been considered.

I certify the matters described in this certificate.

Qualified person:

Signed:

Certificate No: J10811

Date: 24/09/2024