32-34 Georges Bay Esplanade St Helens Tasmania 7216 T: 03 6376 7900 ABN 96 017 131 248



Development Applications

Notice is hereby given under Section 57(3) of the Land Use Planning & Approvals Act 1993 that an application has been made to the Break O' Day Council for a permit for the use or development of land as follows:

DA Number DA 2024 / 00060

Applicant J Binns

Proposal Residential - Dwelling, Deck & Carport

Location 36 Kiama Parade, Akaroa

Plans and documents can be inspected at the Council Office by appointment, 32 - 34 Georges Bay Esplanade, St Helens during normal office hours or online at www.bodc.tas.gov.au.

Representations must be submitted in writing to the General Manager, Break O'Day Council, 32 -34 Georges Bay Esplanade, St Helens 7216 or emailed to admin@bodc.tas.gov.au, and referenced with the Application Number in accordance with section 57(5) of the abovementioned Act during the fourteen (14) day advertised period commencing on Saturday 13 April 2024 until 5pm Saturday 29 April 2024.

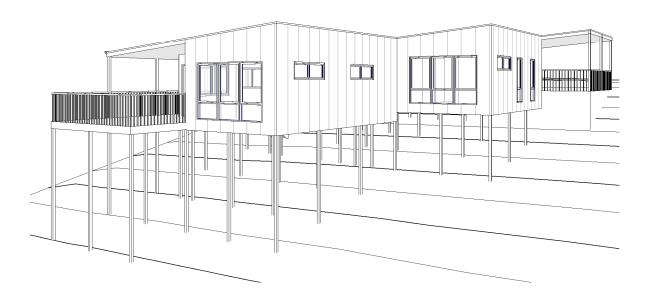
John Brown **GENERAL MANAGER**



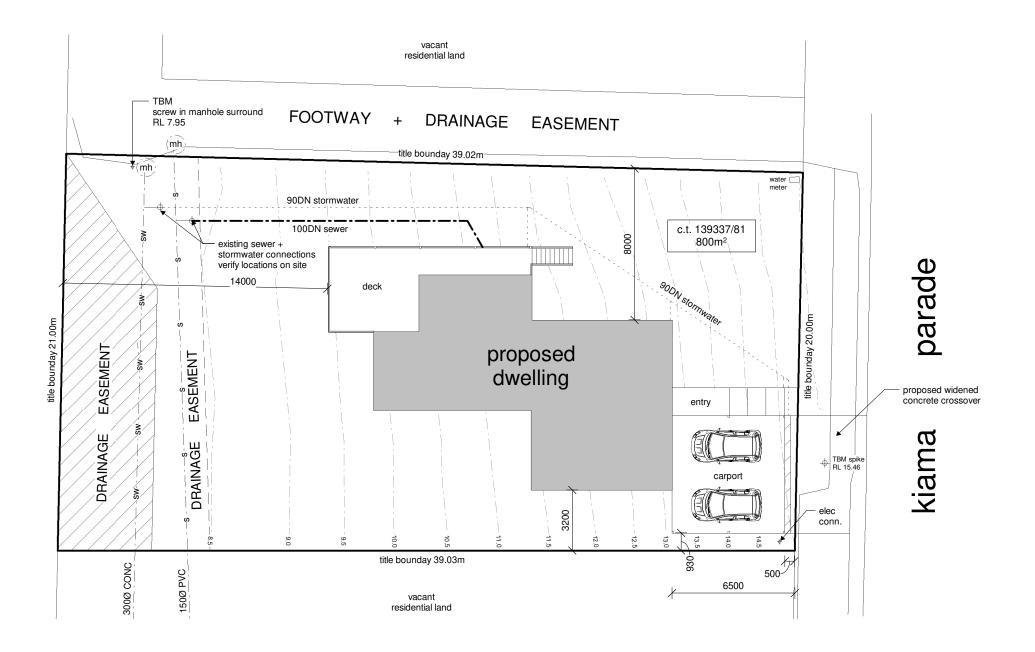
0439 765 452 : mail@jenniferbinnsdesign.com.au 52 cecilia street st helens tasmania 7216

proposed dwelling

jo + david dawes 36 kiama parade akaroa tasmania 7216



planning application







DESCRIPTION: DATE: proposed dwelling j + d dawes 36 kiama parade akaroa tasmania 7216 DRAWING TITLE:

site plan

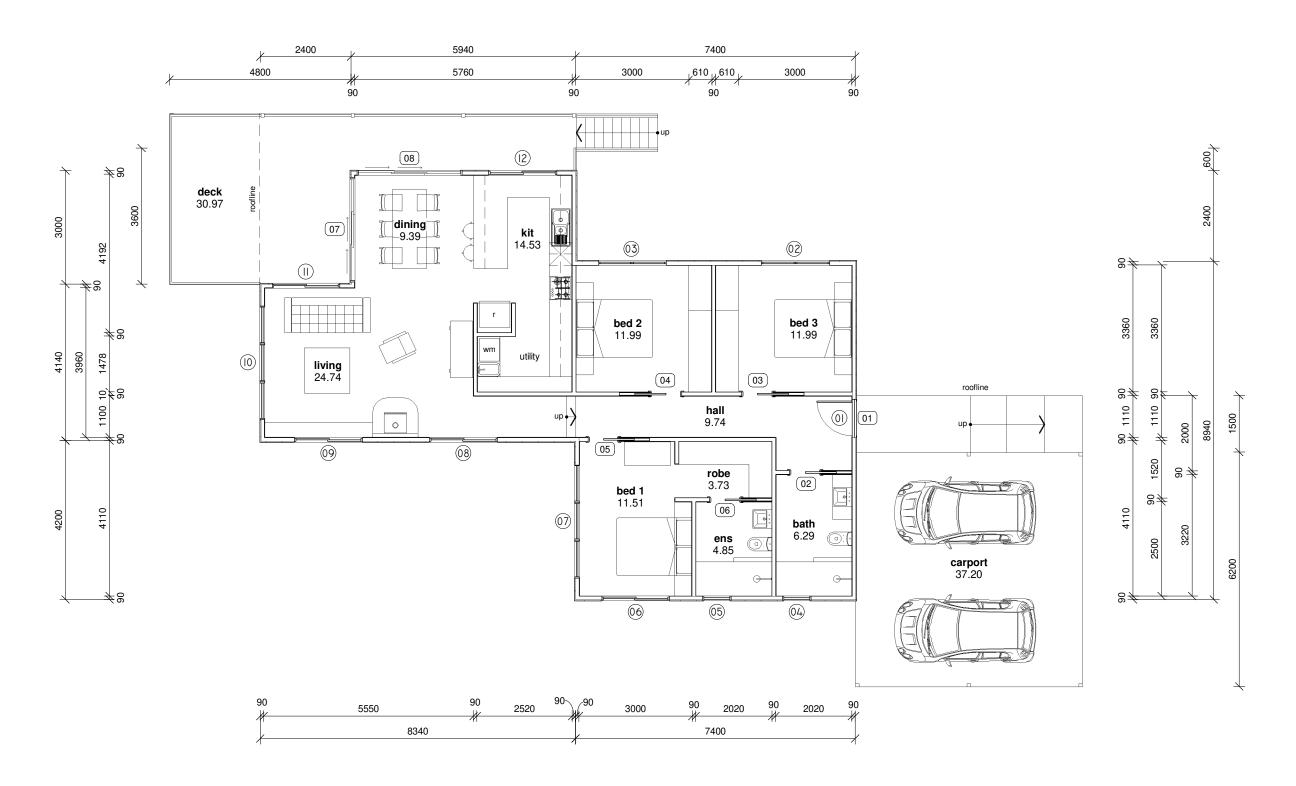
DRAWING NO: DRAWN BY: JB a04 DATE: 22.03.24 PROJECT: 0923DA

SCALE: 1:200



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1 proposed floor plan

Building Areas

dwelling	119.23	
deck	31.70	
carport	37.20	
	188.13	



REV: DESCRIPTION: DATE:

proposed dwelling

j + d dawes 36 kiama parade akaroa tasmania 7216

DRAWING TITLE:

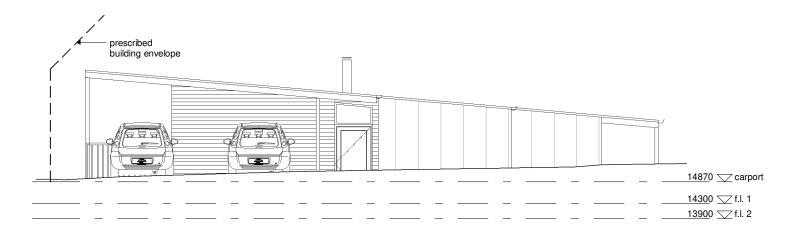
proposed floor plan

DRAWING NO:	DRAWN BY: JB	
a05	DATE: 22.03.24	
SCALE: 1:100	PROJECT: 0923DA	



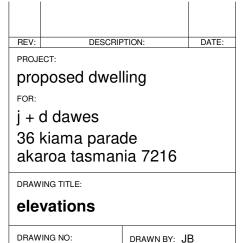
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1 east elevation





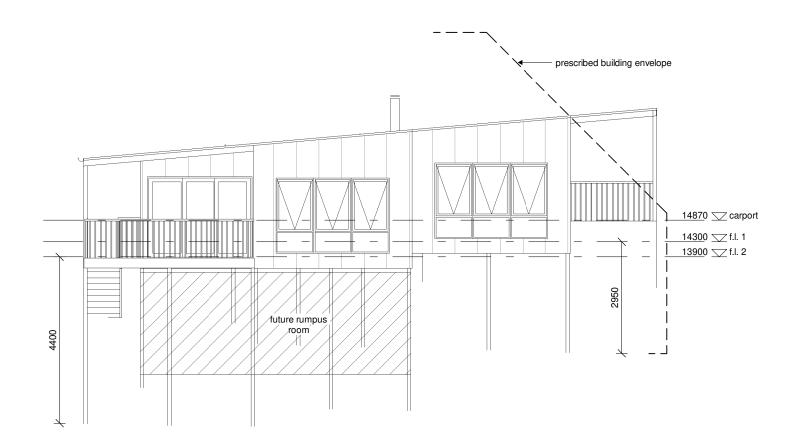


DATE: 22.03.24

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a06



west elevation



south elevation

REV: DESCRIPTION: DATE: proposed dwelling

j + d dawes 36 kiama parade akaroa tasmania 7216

DRAWING TITLE:

elevations

DRAWING NO: DRAWN BY: JB a07 DATE: 22.03.24

SCALE: 1:100

PROJECT: 0923DA



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window and door schedule notes

all openings and dimensions to be verified on site prior to commencing manufacture of windows and doors.

glazing to be in accordance with AS 1288 glass in buildings and AS 2047 windows in buildings.

glazing to be in accordance with NCC part 8

where glazing is capable of being mistaken for a doorway or

- opening, glass to be marked to make it readily visible

 provide opaque band min 20mm high, broken line or
 pattern acceptable
- · upper edge of band min 700mm above f.f.l.
- lower edge of band min 1200mm above f.f.l. does not apply to glazing <500mm in width, where there is no glazing within 700mm of f.f.l. or where glazing incorporates at least one horizontal glazing bar.

for windows to bedrooms where the adjacent surface outside the window is more than 2m below f.f.l., openings in window to be restricted to 125mm using a device or screen with child reisistant release mechanism in accordance with NCC part 11.3.7

window + door assemblies to be in accordance with AS 3959 buildings in bushfire prone areas, refer BPC notes

unless otherwise indicated, window and door heads at 2100 or near to suit external cladding requirements

unless otherwise indicated, flyscreens to be provided to all openable portions or windows + doors, refer BPC notes

window + door assemblies to be installed + flashed in accordance with manufacturer's specification, flashing materials to comply with AS/NZS 2904.

external doors and windows to be fitted with seals to restrict air movement.

windows, doors, hardware and finishes as selected by client.

Window Schedule								
No.	Location	Height	Width	Style	Frame	Glazing	U-Value	SHGC
01	ontry	0	1000	fived highlight	aluminium	double clear	4.3	0.53
02	entry bed 3	1500		fixed highlight awning	aluminium	double clear	4.3	0.53
03	bed 3	1500	1800 1800		aluminium	double clear	4.3	0.53
03 04	bed 2 bath	2000	750	awning	aluminium	double clear	4.3	0.53
0 4 05		2000	750 750	awning	aluminium	double clear	4.3	0.53
05 06	ens			awning				
	bed 1	600	1800	sliding	aluminium	double clear	4.3	0.53
07	bed 1	2000	3000	awning	aluminium	double clear	4.3	0.53
08	living	600	1800	sliding	aluminium	double clear	4.3	0.53
09	living	600	1800	sliding	aluminium	double clear	4.3	0.53
10	living	2000	3000	awning	aluminium	double clear	4.3	0.53
11	living	1200	1800	sliding	aluminium	double clear	4.3	0.53
12	kitchen	1000	1800	sliding	aluminium	double clear	4.3	0.53

Door Schedule								
No.	Location	Height	Width	Style	Frame	Glazing	U-Value	SHGC
01	entry	2100	920	glazed entry	aluminium	double clear	4.3	0.53
02	bath	2040	820	Flush panel/Cavity sliding		-		
03	bed 3	2040	820	Flush panel/Cavity sliding		-		
04	bed 2	2040	820	Flush panel/Cavity sliding		-		
05	bed 1	2040	820	Flush panel/Cavity sliding		-		
06	ens	2040	820	Flush panel/Cavity sliding		-		
07	dining	2100	2700	3 panel glazed sliding	aluminium	double clear	4.3	0.53
08	dining	2100	2700	3 panel glazed sliding	aluminium	double clear	4.3	0.53

DESIGN WIND SPEED: N3 BAL 29

REV: DESCRIPTION: DATE:

PROJEC

proposed dwelling

FOR

j + d dawes 36 kiama parade akaroa tasmania 7216

DRAWING TITLE:

schedules

DRAWING NO:

DRAWN BY: JB

DATE: 22.03.24

SCALE: 1:100

PROJECT: 0923DA

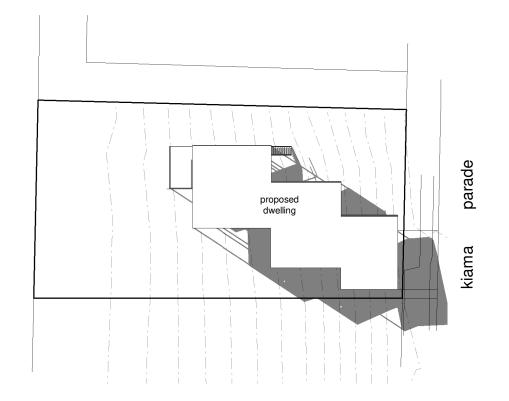


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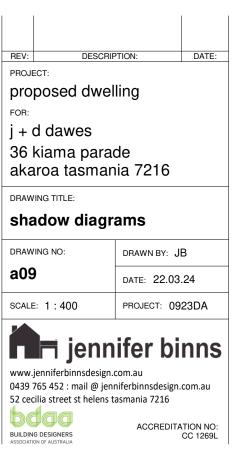


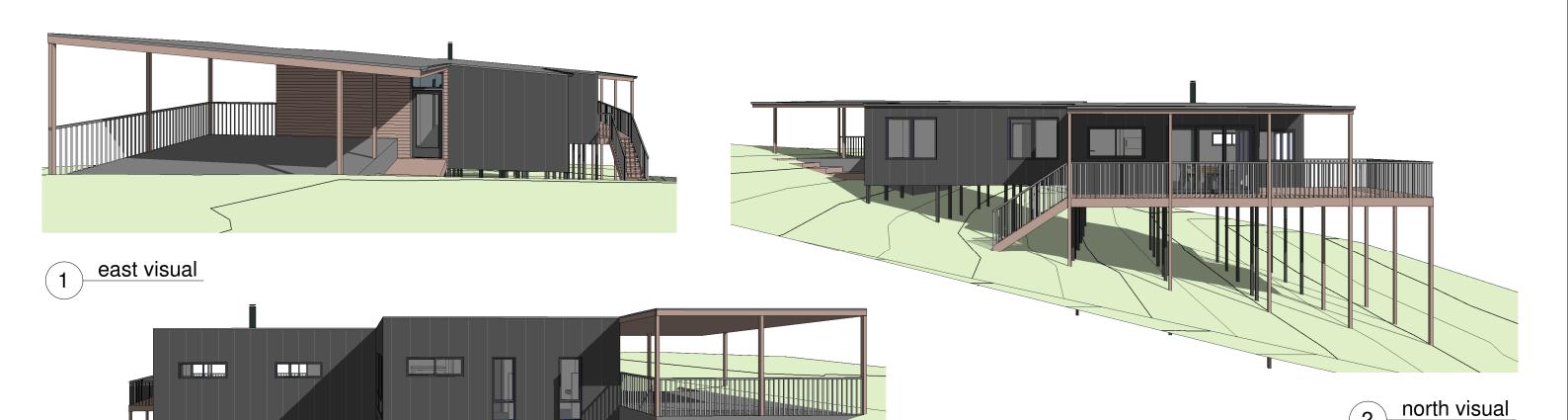


1 shadow cast 10am june 21

2 shadow cast 12 noon june 21

3 shadow cast 2pm june 21





south visual



DESCRIPTION: DATE: REV: proposed dwelling j + d dawes 36 kiama parade akaroa tasmania 7216 DRAWING TITLE: visuals DRAWING NO: DRAWN BY: JB a10 DATE: 22.03.24 PROJECT: 0923DA jennifer binns

www.jenniferbinnsdesign.com.au 0439 765 452 : mail @ jenniferbinnsdesign.com.au 52 cecilia street st helens tasmania 7216

BUILDING DESIGNERS
ASSOCIATION OF AUSTRALIA

ACCREDITATION NO: CC 1269L

west visual

proposed dwelling

jo + david dawes 36 kiama parade akaroa tasmania 7216

planning compliance report

march 21 2024

jennifer binns building design

level 1 avery house 48 cecilia street st helens tasmania 7216 jenniferbinns@bigpond.com: 0439 765 452: 03 6376 2588

Introduction

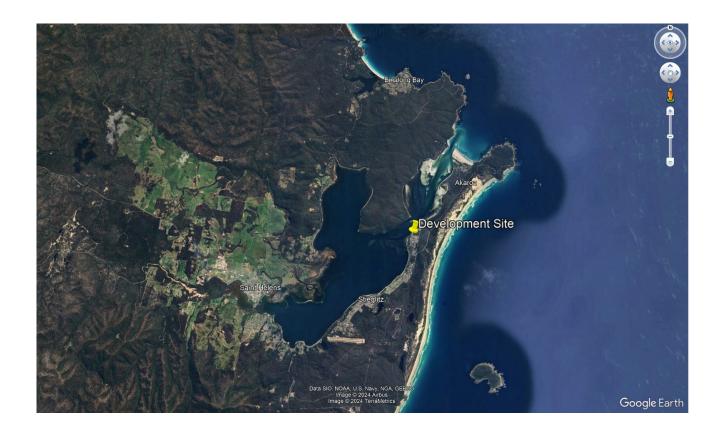
This report aims to demonstrate compliance with relevant planning standards for proposed dwelling alterations for Jo + David Dawes at 36 Kiama Parade Akaroa (c.t. 139337/81). The report aims to take into consideration the intent, values and objectives of the Tasmanian Planning Scheme and address all scheme standards applicable to this development.

The proposed development relies on **Performance Criteria** to meet relevant planning standards and is to be read in conjunction with drawings submitted for the development.

Development Site Details

The development site is a vacant serviced residential allotment within the Akaroa township. The property is considered bushfire prone for planning purposes however the site has previously been cleared of vegetation and no vegetation removal is proposed as part of this application. The existing vehicle access will be widened to service the proposed dwelling.

Zone: General Residential



Development Details

The proposed development comprises a new single story dwelling with an attached carport.

Use Class: Residential

Applicable Planning Codes

The proposed development is in the *Residential* use class which in the *General Residential* Zone is a *Permitted* use.

The following zone standards and codes of the Tasmanian Planning Scheme are applicable to the proposed development:

- Zone 8.0 GENERAL RESIDENTIAL ZONE
- Code 2.0 PARKING AND SUTAINABLE TRANSPORT CODE

Table 8.3 GENERAL RESIDENTIAL USE STANDARDS

8.3.1 Amenity

A1 Not Applicable

The proposed development is a permitted use.

A2 Not Applicable

The proposed development is a permitted use.

A3 Not Applicable

The proposed development is not a commercial use.

A4 Not Applicable

The proposed development is a permitted use.

8.3.2 Residential Character

A1 Not Applicable

The proposed development is not in the Visitor Accommodation use class.

A1 Not Applicable

The proposed development is not in the Visitor Accommodation use class.

Table 8.4 GENERAL RESIDENTIAL DEVELOPMENT STANDARDS

8.4.1. Residential density for multiple dwellings

A1 Not Applicable

The proposed development does not include multiple dwellings.

8.4.2 Setback and building envelope for all dwellings

p1 Performance Solution

The proposed dwelling has a street setback of 6.5m however the proposed carport has a setback of 0.5m due to the steep topography of the site. There is not an established streetscape pattern on Kiama Parade and the proposed open carport will not present as a visual bulk in the streetscape.

A2 Acceptable Solution

(c) the proposed carport has a front setback of 0.5m and the topography of the site is > 1:5.

within the prescribed building envelope due to the reduced front setback.

P3 Performance Solution

(a)The proposed dwelling has a high set floor level due to the steep topography of the site and has been designed with increased setbacks to accommodate the height of the building as it progressively increases. The dwelling has been sited to suit the vehicle access provisions and the proposed carport is not contained

Shadow diagrams have been included with this application. The extent of overshadowing is not considered unreasonable and there is ample scope to design a dwelling on the adjacent lot with good solar access. The shadows are most extensive in the morning and the shadow cast by the carport is not expected to overshadow habitable spaces as it is sited within the front setback.

(b) the proposed carport is within 1m of the side boundary, it is an open structure and is < 9m and 1/3 of the side boundary length.

8.4.3 Site coverage and private open space for all dwellings

A1 Acceptable Solution

The proposed development is < 50% of the site area.

A2 Acceptable Solution

The proposed dwelling has a 31m2 deck which is the primary open space associated with the dwelling due to the steep topography of the site.

8.4.4 Sunlight to private open space of multiple dwellings

A1 Not Applicable

The proposed development does not include multiple dwellings.

8.4.5 Width of openings for garages and carports for all dwellings

P1 Performance Criteria

The proposed carport is 6.2m wide. The carport has been sited directly adjacent to the front setback due to the steep topography of the site and has been designed as an open structure so as not to form a dominant visual bulk in the streetscape.

8.4.6 Privacy for all dwellings

A1 Acceptable Solution

The proposed deck is not within 3m of a shared boundary and is not within 4m of the rear boundary.

A2 Acceptable Solution

There are no habitable windows within 3m of a shared boundary or 4m of the rear boundary.

A3 Not Applicable

The proposed development does not include a shared driveway.

8.4.7 Frontage fences for all dwellings

A1 Not Applicable

Fencing is not proposed as part of this application.

8.4.8 Waste storage for multiple dwellings

A1 Not Applicable

The proposed development does not include multiple dwellings.

Table 8.5 DEVELOPMENT STANDARDS FOR NON DWELLINGS

Not Applicable

The proposed development is a dwelling.

Table 8.6 DEVELOPMENT STANDARDS FOR SUBDIVISION

Not Applicable

No subdivision of land is proposed

Table C2.5 CAR PARKING USE STANDARDS

C2.5.1 Car parking numbers

A1 Acceptable Solution

The proposed development provides 2 parking spaces within the boundaries of the development site in accordance with Table C2.1.

C2.5.2 Bicycle parking numbers

A1 Not Applicable

The proposed development does not require the provision of bicycle parking spaces.

C2.5.3 Motorcycle parking numbers

A1 Not Applicable

The proposed development does not require provision of motorcycle parking spaces.

C2.5.4 Loading bays

A1 Not Applicable

The proposed development does not require provision of a loading bay.

C2.5.5 Number of car parking spaces within the General Residential zone and Inner Residential zone

A1 Not Applicable

The proposed development is a residential building.

Table C2.6 CAR PARKING DEVELOPMENT STANDARDS

C2.6.1 Construction of parking areas

A1 Acceptable Solution

The proposed parking area will be concrete drained to Council's stormwater system.

C2.6.2 Design and layout of parking areas

A1.1 Acceptable Solution

Reverse egress is proposed due to the steep topography of the site and 2 parking spaces are provided.

A1.2 Not Applicable

There is no requirement for the provision of accessible parking.

C2.6.3 Number of accesses for vehicles

A1 Acceptable Solution

The property is serviced by a single existing access point.

A2 Not Applicable

The proposed development is in the *General Residential* zone.

C2.6.4 Lighting of parking areas within the Gen. Business zone and Central Business zone

A1 Not Applicable

The proposed development is in the General Residential zone.

C2.6.5 Pedestrian Access

A1.1 Not Applicable

The proposed development does not require the provision of >10 parking spaces.

A1.2 Not Applicable

There is no requirement for the provision of accessible parking.

C2.6.6 Loading bays

A1 Not Applicable

The proposed development does not require the provision of a loading bay.

A2 Not Applicable

The proposed development is not a commercial use.

C2.6.7 Bicycle parking and storage facilities within the Gen. Business zone and Central Business zone

A1 Not Applicable

The proposed development does not require the provision of bicycle parking spaces.

A2 Not Applicable

The proposed development does not require the provision of bicycle parking spaces.

C2.6.8 Siting of parking and turning areas

A1 Not Applicable

The proposed development is in the *General Residential* zone.

A2 Not Applicable

The proposed development is in the *General Residential* zone.

Table C2.7 PARKING PRECINCT PLAN

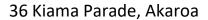
C2.7.1 Construction of parking areas

A1 Not Applicable

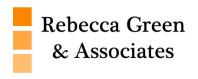
The proposed development is not within a parking precinct plan.



Bushfire Hazard Assessment Report & Bushfire Hazard Management Plan







Prepared for (Client)

David and Joanne Dawes

26 Towers Road

SHOALHAVEN HEADS NSW 2535

Assessed & Prepared by

Rebecca Green

Senior Planning Consultant & Accredited Bushfire Hazard Assessor

Rebecca Green & Associates

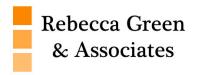
PO Box 2108 LAUNCESTON TAS 7250

Mobile: 0409 284 422

Version 1

12 January 2020

Job No: RGA-B1289



Executive Summary

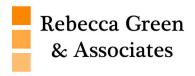
The proposed development at 36 Kiama Parade, Akaroa, is subject to bushfire threat. A bushfire attack under extreme fire weather conditions is likely to subject buildings at this site to considerable radiant heat, ember attack along with wind and smoke.

The site requires bushfire protection measures to protect the buildings and people that may be on site during a bushfire.

These measures include provision of hazard management areas in close proximity to the buildings, implementation of safe egress routes, establishment of a water supply and construction of buildings as described in AS 3959-2009 Construction of Buildings in Bushfire Prone Areas.

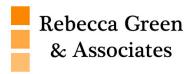
Primary responsibilities identified within this report:

Occupier	 <u>Establish and maintain</u> Hazard Management Areas as described in this report.
	 <u>Construct</u> Dwelling to meet <u>BAL 29</u> (AS3959-2009).



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Schedule 1 – Bushfire Report

1.0 Introduction

The Bushfire Attack Level (BAL) Report and Bushfire Hazard Management Plan (BHMP) has been prepared for submission with a Building Permit Application under the *Building Act 2016 & Regulations 2016*.

The Bushfire Attack Level (BAL) is established taking into account the type and density of vegetation within 100 metres of the proposed building site and the slope of the land; using the simplified method in AS 3959-2009 Construction of Buildings in Bushfire Prone Areas; and includes:

- The type and density of vegetation on the site,
- Relationship of that vegetation to the slope and topography of the land,
- Orientation and predominant fire risk,
- Other features attributing to bushfire risk.

On completion of assessment, a Bushfire Attack Level (BAL) is established which has a direct reference to the construction methods and techniques to be undertaken on the buildings and for the preparation of a Bushfire Hazard Management Plan (BHMP).

1.1 Scope

This report was commissioned to identify the Bushfire Attack Level for the existing property. ALL comment, advice and fire suppression measures are in relation to compliance with the Building Code of Australia and Australian Standards, AS 3959-2009, Construction of buildings in bushfire-prone areas.

1.2 Limitations

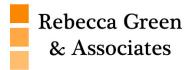
The inspection has been undertaken and report provided on the understanding that:-

- 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 and cannot be relied upon for any future development.
- 3. Impacts of future development and vegetation growth have not been considered.

No action or reliance is to be placed on this report; other than for which it was commissioned.

1.3 Proposal

The proposal is for the construction of a new single dwelling.



2.0 Site Description for Proposal (Bushfire Context)

2.1 Locality Plan

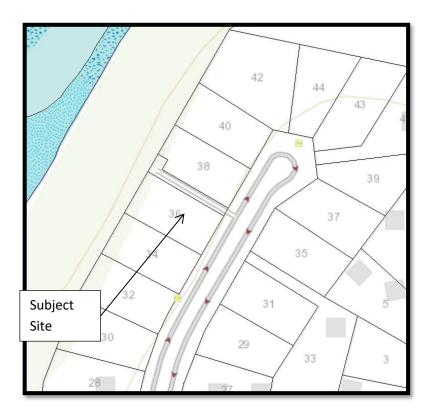


Figure 1: Location Plan of 36 Kiama Parade, Akaroa

2.2 Site Details

Property Address	36 Kiama Parade, Akaroa
Certificate of Title	Volume 139337 Folio 81
Owner	David John Dawes and Joanne Margaret Dawes
Existing Use	Vacant
Type of Proposed Building Work	Construction of dwelling
BCA Classification	Single Dwelling – Class 1a
Water Supply	TasWater reticulated supply
Road Access	Street Frontage – Kiama Parade

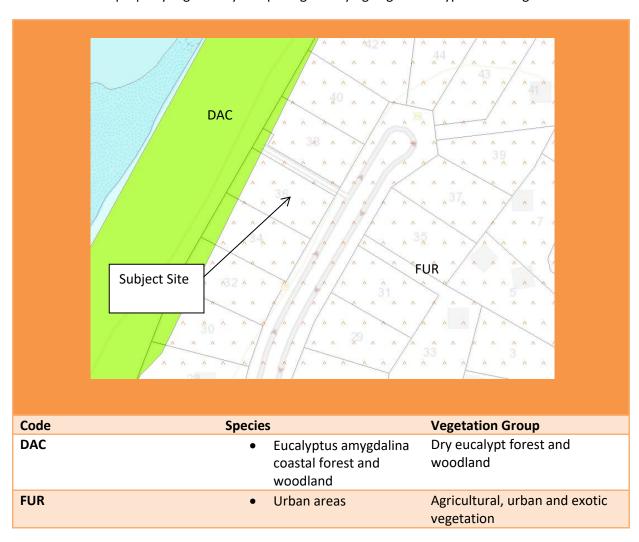


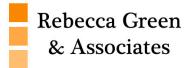
3.0 Bushfire Site Assessment

3.1 Vegetation Analysis

3.1.1 TasVeg Classification

Reference to Tasmanian Vegetation Monitoring & Mapping Program (TASVEG) indicates the land in and around the property is generally comprising of varying vegetation types including:





3.1.2 Site & Vegetation Photos



View looking northeast



View looking southeast

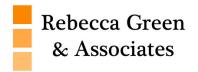


View looking southwest



View looking northwest





3.2 BAL Assessment – Dwelling

Vegetation classification AS3959	North □ North-East ⊠	South □ South-West ⊠	East □ South-East ⊠	West □ North-West ⊠
Group A	☐ Forest	☐ Forest	☐ Forest	☐ Forest
Group B	☐ Woodland	☐ Woodland	☐ Woodland	☐ Woodland
Group C	☐ Shrub-land	☐ Shrub-land	☐ Shrub-land	☐ Shrub-land
Group D	⊠ Scrub	☐ Scrub	☐ Scrub	⊠ Scrub
Group E	☐ Mallee-Mulga	☐ Mallee-Mulga	☐ Mallee-Mulga	☐ Mallee-Mulga
Group F	☐ Rainforest	☐ Rainforest	☐ Rainforest	☐ Rainforest
Group G	☐ Grassland	☐ Grassland	☐ Grassland	☐ Grassland
Effective	☑ Up/0 ⁰	☑ Up/0 ⁰	☑ Up/0 ⁰	☐ Up/0°
slope (degrees)	□ >0-5°	□ >0-5°	□ >0-5°	□ >0-5°
(acgrees)	□ >5-10 ⁰	□ >5-10 ⁰	□ >5-10°	□ >5-10 ⁰
	□ >10-15 ⁰	□ >10-15 ⁰	□ >10-15 ⁰	□ >10-15 ⁰
	□ >15-20°	□ >15-20 ⁰	□ >15-20 ⁰	□ >15-20°
				>20 degrees
Distance to classified vegetation	Metres 0-approx. 80m managed / low threat (BHAN No 01-2014 Version 3.0) >80m scrub	Metres >100m managed / low threat (BHAN No 01-2014 Version 3.0)	Metres >100m managed / low threat (BHAN No 01-2014 Version 3.0)	Metres 0-<14m managed (subject site) >14m scrub
Likely direction of bushfire attack				
	_	_	_	_
Prevailing winds				
Exclusions	a b c d <u>e</u> <u>f</u>	a b c d <u>e</u> <u>f</u>	a b c d <u>e</u> <u>f</u>	a b c d e <u>f</u>
BAL Value	BAL -12.5	DAL LOW	DAL LOW	DAL 20 through
(FDI 50)	DAL -12.5	BAL –LOW	BAL – LOW	BAL 29 through Performance Solution for reduced flame width and 14m separation – See TFS advice

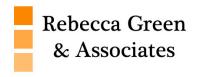


The Bushfire Attack Level shall be classified BAL-LOW where the vegetation is one or a combination of any of the following:

- (a) Vegetation of any type that is more than 100 metres from the site.
- (b) Single areas of vegetation less than 1 hectare in area and not within 100m of other areas of vegetation being classified.
- (c) Multiple areas of vegetation less than 0.25 hectare in area and not within 20 metres of the site, or each other.
- (d) Strips of vegetation less than 20 metres in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 metres of the site or each other, or other areas of vegetation being classified.
- (e) Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.
- (f) Low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTE: Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognisable as short-cropped grass for example, to a nominal height of 100mm).

BAL – LOW	The risk is considered to be VERY LOW.
	There is insufficient risk to warrant any specific construction requirements
	but there is still some risk.
BAL – 12.5	The risk is considered to be LOW.
	There is a risk of ember attack. The construction elements are expected
	to be exposed to a heat flux not greater than 12.5 kW/m ² .
BAL - 19	The risk is considered to be MODERATE.
	There is a risk of ember attack and burning debris ignited by windborne
	embers and a likelihood of exposure to radiant heat. The construction
	elements are expected to be exposed to a heat flux not greater than 19
	kW/m².
BAL – 29	The risk is considered to be HIGH.
	There is an increased risk of ember attack and burning debris ignited by
	windborne embers and a likelihood of exposure to an increased level of
	radiant heat. The construction elements are expected to be exposed to a
	heat flux not greater than 29 kW/m².
BAL – 40	The risk is considered to be VERY HIGH.
	There is a much increased risk of ember attack and burning debris ignited
	by windborne embers, a likelihood of exposure to a high level of radiant
	heat and some likelihood of direct exposure to flames from the fire front.
	The construction elements are expected to be exposed to a heat flux not
	greater than 40 kW/m ² .
BAL – FZ	The risk is considered to be EXTREME.
	There is an extremely high risk of ember attack and burning debris ignited
	by windborne embers, and a likelihood of exposure to an extreme level of
	radiant heat and direct exposure to flames from the fire front. The
	construction elements are expected to be exposed to a heat flux greater
	than 40 kW/m ² .



3.3 Specified Hazard Management Areas

Hazard management areas are to be established <u>and maintained</u> between the bushfire prone vegetation and the building at a distance equal to, or greater than the separation distance specified for the Bushfire Attack Levels (BAL) in table 2.4.4 of *Australian Standard 3959-2009 Construction of Buildings in Bushfire Prone Areas*.

Where the Hazard Management Areas can be increased around the building and the classified vegetation in accordance with table 2.4.4 of Australian Standard 3959, the risk from bushfire attack can reduce.

Dwelling

Distance from Predominant vegetation for BAL 29	North/ North-East	South/ South-West	East/ South-East	West/ North-West
	To title boundary	To title boundary	To title boundary	To title boundary Min. 14m
	Metres	Metres	Metres	Metres

The separation distance for the SPECIFIED Hazard Management Area is to be shown on the attached Bushfire Hazard Management Plan measured from the external walls (Façade) of the building in metres along the ground to the bushfire hazard vegetation (if applicable).

3.4 Outbuildings

Not applicable.

3.5 Road Access

Roads are to be constructed to provide vehicle access to the site to assist firefighting and emergency personnel to defend the building or evacuate occupants; and provide access at all times to the water supply for firefighting purposes on the building site.

Private access roads are to be constructed from the entrance to the property cross over with the public road through to the dwelling and water storage area on the site.

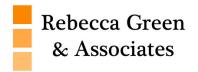
Existing / New	Access via direct road frontage, private access
Road Access and Driveways	length is less than 30 metres

3.6 Water Supply

A building that is constructed in a designated bushfire prone area must provide access at all times to a sufficient supply of water for firefighting purposes on the building site.

The exterior elements of a Class 1 building in a designated Bushfire prone area must be within reach of a 120m long hose (lay) connected to —

(i) A fire hydrant with a minimum flow rate of 600L per minute and pressure of 200kpa; or



(ii) A stored water supply in a water tank, swimming pool, dam or lake available for firefighting at all times which has the capacity of at least 10,000L for each separate building.

ExistingReticulated Water Supply



It should be recognised that although water supply as specified above may be in compliance with the requirements of the Building Code of Australia, the supply may not be adequate for all firefighting situations.

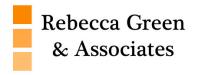
4.0 Layout Options

Not relevant to this proposal.

5.0 Other Planning Provisions

<u>Performance Requirements – Director's Determination – Requirements for Building in Bushfire-</u> <u>Prone Areas, Version 2.1</u>

- (1) A building to which this Determination applies must, to the degree necessary, be:
 - (a) Designed and constructed to reduce the ignition from bushfire, appropriate to the
 - (i) Potential for ignition caused by burning embers, radiant heat or flame generated by bushfire; and
 - (ii) Intensity of the bushfire attack to the building;
 - (b) Provided with vehicular access to the site to assist fire fighting and emergency personnel to defend the building or evacuate occupants;
 - (c) Provided with access at all times to a sufficient supply of water for fire fighting purposes on the site; and
 - (d) Provided with appropriate separation of the building from the bushfire hazard.



Response

The proposal seeks to rely upon assessment against the Performance Criteria due to the separation of the building from the bushfire hazard and slope under the bushfire fire prone vegetation causing the Bushfire Attack Level to be unable to be classified under Method 1.

The land located adjacent to the subject site in a north-westerly direction is Crown Land. The location of the proposed dwelling is to be 14m from the north-western boundary to reduce the amount of cut required to site the dwelling. The site is an existing lot, whereby bushfire protection measures were not a consideration at the time of subdivision. The site is zoned General Residential, a zone which provides residential use as an allowable use. The performance solution should be warranted as development of the subject site cannot otherwise be developed for the purpose is was zoned for.

The proposal therefore cannot meet the Deemed-to-satisfy requirements for a BAL-29 or lower separation from the bushfire-prone vegetation (Method 1).

The principle bushfire-prone vegetation is located in this one direction (north-west) to the subject site, with all other elevations fronting a BAL – LOW aspect for up to 100m or BAL-12.5. The direction of flame attack is therefore only predominantly from this one side. The dwelling is to be constructed at a total distance of 14 metres to scrub, with a 72 degree slope.

The proposed Performance Solution seeks to consider advice of TFS in relation to the reduced flame width of the bushfire prone vegetation to the north-western title boundary in lieu of full separations prescribed in Table 2.4.4 of AS3959-2009 due to the slope greater than 20 degrees.

For this solution to be acceptable, radiant heat flux at the building area must be no greater than 29kWm² and potential for flame contact must be mitigated. Based on Method 2 assessment calculations the proposal is considered to be acceptable subject to the dwelling being located no closer than 14m from the north-western property boundary.

Building egress is on the south-eastern elevation and away from the direction of fire attack. The entirety of the dwelling will be constructed to BAL-29 to provide resilience to intermittent flame contact. Therefore, the proposal has provided how tolerable residual risk will be achieved.



6.0 Conclusions and Recommendations

Mitigation from bushfire is dependent on the careful management of the site by maintaining reduced fuel loads within the hazard management areas and within the site.

The site has been assessed as requiring buildings (Dwelling) to conform to or exceed BAL 29 requirements based on AS 3959 – 2009 Construction of Buildings in Bushfire Prone Areas.

<u>Access</u>

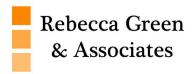
Private access length is less than 30 metres – there are no specified design and construction requirements.

Water Supplies

The property has access to a reticulated water supply and is within 120 metres of the existing fire plug, meeting the requirements for Reticulated Water Supply for Fire Fighting, Table 4.3A (A), Director's Determination – Requirements for Building in Bushfire-Prone Areas, Version 2.1.

Fuel Managed Areas

Hazard Management Areas as detailed within the plan shall be constructed and maintained as detailed in Section 2 of Schedule 2 (where applicable).



Schedule 2 – Bushfire Hazard Management Plan

1.0 Introduction

The Bushfire Hazard Management Plan (BHMP) is developed from the results of a Bushfire Attack Level (BAL) Assessment Report prepared for the site in accordance with Australian Standard 3959. The BHMP provides reference and information to existing and subsequent owners on their responsibilities for the establishment, maintenance and future management of their property to reduce the risk of bushfire attack and includes: -

- Establishment of a Hazard Management Area in and around the existing and/or proposed buildings,
- Specifications of Private access road construction,
- Provision on firefighting water supply,
- Construction requirements in relation to the Building Code of Australia, dependent on the Bushfire Attack Level and requirements of Australian Standard 3959.
- Reduction and removal of vegetation and fuel loads in and around the property, buildings and Hazard Management Areas,
- Ongoing maintenance responsibilities by successive owners for perpetuity.

A copy of the plan MUST also be provided to ALL current and successive owners to make them aware of their continuing obligations to maintain the plan and protection measures attributed to their property in to the future.

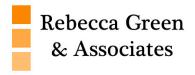
2.0 Hazard Management Areas

The Hazard Management Area (defendable space) is provided between the vegetation and the buildings subject to bushfire risk. The space provides for management of vegetation and reduction in fuel loads in an attempt to:

- Prevent flame impingement on the dwelling;
- Provide a defendable space for property protection;
- Reduce fire spread;
- Deflect and filter embers;
- Provide shelter from radiant heat; and
- Reduce wind speed.

The *Building Act 2016*, requires a hazard management area to be established <u>and maintained</u> between the bushfire prone vegetation and the building at a distance equal to, or greater than the separation distance specified for the Bushfire Attack Levels (BAL) in *AS 3959-2009 Construction of Buildings in Bushfire Prone Areas*.

Refer to the attached BHMP Site Plan in Section 6 of this management plan for specific details on the Hazard Management Area.



2.1 Vegetation (Fuel) Management

Managing an area in a minimum fuel condition generally means a reduction in the amount and altering the arrangement of fuels. Most fine fuels are at or close to the ground, often as part of a grass, litter or shrub layer. If there is enough fuel, when a fire comes these fuels will ignite the trees above or set the bark alight which will burn up into the tree canopy causing the most dangerous of bushfire situation; a crown fire.

To prevent crown fires occurring it is necessary to remove the "ladder of fuel" between the ground and the tree crowns and to make sure the amount of ground fuel is not sufficient to set the crowns alight. Without fire burning below, a crown fire should not be sustained. Further removing continuity and separation of the vegetation canopies both horizontally and vertically will assist.

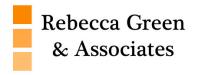
All vegetation will burn under the influence of bushfire; shrub layers need to be modified to remove tall continuous walls of vegetation and establish clear separation between the ground and the bottom of the tree canopy. Further minimisation of flammable ground litter such as leafs, twigs, bark, ferns and debris will further reduce fuel load with potential to burn or contribute to the growth of a bushfire.

Fuels do not need to be totally removed however fuels close to the building and inside the Hazard Management Area are to be kept to a minimum. As a general practice 5 tonnes per hectare is accepted as being controllable with normal firefighting resources. This can be visualised as grass cut to about 10 centimetres in height or ground litter about 2 centimetres thick. This is considered to be a low fuel level.

2.2 Other Risk Management Actions

Other actions that can be implemented to reduce the bushfire risk in the Hazard Management Areas include:

- 1. Establishing non-combustible paths and driveways around buildings.
- 2. Establish plantings of low flammability shrub species.
- 3. Ensure garden beds and shrubs are established well away from buildings.
- 4. Tree planting to be located at the outer edge of the Hazard Management Area and spaced well apart to ensure canopy separation.
- 5. Cut lawns short and maintain.
- 6. Remove fallen limbs, leaf and bark litter.
- 7. Avoid using pine bark and other flammable mulch in gardens.
- 8. Prune trees to ensure canopy separation horizontally and vertically, remove low hanging branches to ensure separation from ground litter.
- 9. Where the amount of land permits extend the vegetation management in to a secondary hazard management zone.



3.0 On-going Site Management and Maintenance

On-going maintenance is required to the buildings and landscaping within the hazard management area to ensure the continued performance of the bushfire mitigation measures which have been designed into the development for occupant and community protection.

Specified Hazard Management Areas are only a minimum distance required; owners are encouraged to establish a greater management area where land area and opportunity permits. An additional fuel modified buffer zone between the Hazard Management Area and the bushfire vegetation will only improve the protection level and reduce the risk to the property during a bushfire event.

Preparedness comes down to diligent annual maintenance in and around the buildings and Hazard Management Areas particularly during the period of greatest risk; August to February of each year.

Recommendation:

- 1. Locate wood piles or other flammable storage well away from the dwelling.
- 2. Solid non-combustible fencing such as steel provides a fire and heat radiation shield to the dwelling.
- 3. Metal flywire screens prevent sparks and embers from entering the building.
- 4. Seal gaps under floor spaces, roof space, under eaves, external vents, skylights, chimneys and wall cladding.
- 5. Remove ladder fuels from the under storey of larger trees. Prune canopies to provide separation.
- 6. Rake up leaf litter and vegetation debris. Cut grass and maintain to less than 10cm.
- 7. Keep garden beds well away from the dwelling and use non-combustible garden mulches including rock or stones.
- 8. Establish plantings of low flammability shrub species.
- 9. Seal all gaps in external claddings.
- 10. Keep roof gutters clear of leaf litter, bark and similar debris, remove and maintain. Install gutter guards to assist.
- 11. Flammable fuels such as gas bottles should be located on the opposite side of the house to the likely direction of a bushfire.
- 12. Seal gaps in roofing to prevent the entry of embers.
- 13. Surround the dwelling with non-combustible paths.
- 14. Outbuildings to be at least 6m from the main dwelling.
- 15. Ensure hoses provide coverage to the whole site. Use metal hose fittings.
- 16. Flammable fuels and the like to be stored in minimum volumes well away from the dwelling.

4.0 Vehicular Access

Roads are to be constructed to provide vehicle access to the site to assist firefighting and emergency personnel to defend the building or evacuate occupants; and provide access at all times to the water supply for firefighting purposes on the building site.



Private access roads are to be constructed from the entrance to the property cross over with the public road through to the dwelling and water storage area on the site (if applicable). Private access roads are to be designed, constructed and maintained to a standard as recommended below:

Recommendations:

There are no specified design and construction requirements as private access length is less than 30 metres to habitable building.

5.0 Water Supply

A building that is constructed in a designated bushfire prone area must provide access at all times to a sufficient supply of water for firefighting purposes on the building site.

Recommendations:

The exterior elements of a Class 1 building in a designated Bushfire prone area must be within reach of a 120m long hose (lay) connected to –

- (i) A fire hydrant with a minimum flow rate of 600L per minute and pressure of 200kPa; or
- (ii) A stored water supply in a water tank, swimming pool, dam or lake available for fire fighting at all times which has the capacity of at least 10,000L for each separate building.

5.1 Reticulated Water Supply

Where a reticulated water supply via connection to the Local Water Authority system is available the system is to be designed and fire hydrant ground plugs installed in accordance with AS2419.2. Fire plugs to be positioned and or located so the maximum distance from the fire plug to the building is less than 120 metres and have a minimum flow rate of 10 litres/second.

Note: Water Corporations indicate flow rates and water pressure from existing fire hydrants may fail to comply with minimum specified requirements.

It cannot be assumed that access to existing Water Corporation infrastructure and hydrants will meet the standards. Flow testing is to be undertaken prior to any hydraulic design to satisfy that water supply can deliver required flow rates to the subdivision at peak and off-peak times.

5.2 On-Site Dedicated Fire Fighting Water Supply

Not applicable to this proposal.



Bushfire Hazard Management Site Plan



HAZARD MANAGEMENT AREA TO BE MAINTAINED IN A MINIMUM FUEL CONDITION - REFER TO SECTION 3.3 (SCHEDULE 1) & SECTION 2.0 (SCHEDULE 2) OF BUSHFIRE HAZARD ASSESSMENT REPORT

DWELLING MUST BE DESIGNED AND CONSTRUCTED TO BAL - 29 MINIMUM STANDARD UNDER AS3959-2009

PROPERTY ACCESS REQUIREMENTS - REFER TO SECTION 3.5 (SCHEDULE 1) OF BUSHFIRE HAZARD ASSESSMENT REPORT

FIREFIGHTING WATER SUPPLY - REFER TO SECTION 3.6 (SCHEDULE 1) OF BUSHFIRE HAZARD ASSESSMENT REPORT

* THIS BHMP MUST BE READ IN CONJUNCTION WITH BUSHFIRE HAZARD ASSESSMENT REPORT REF: RGA-B1289, R. GREEN, 12 JANUARY 2020

* THIS BHMP HAS BEEN PREPARED TO SATISFY THE REQUIREMENTS OF THE DIRECTORS **DETERMINATION - REQUIREMENTS FOR BUILDING** N

IN BUSHFIRE PRONE AREAS (V2.1)

BUSHFIRE HAZARD MANAGEMENT PLAN

BUSHFIRE ATTACK LEVEL (BAL) - 29 **NEW DWELLING**

36 KIAMA PARADE, AKAROA **VOLUME 139337 FOLIO 81** PROPERTY ID 2242054

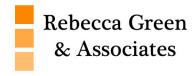
DATE: 12 JANUARY 2020

VERSION: 1

DRAWN: REBECCA GREEN PHONE: 0409 284 422

EMAIL: ADMIN@RGASSOCIATES.COM.AU BFP - 116, SCOPE - 1, 2, 3A, 3B, 3C

Rebecca Green & Associates



Form 55

To:	David and Joanne Dawes	Owner /Agent	6 6	
	26 Towers Road	Address	Form 55	
	SHOALHAVEN HEADS NSW 2	Suburb/postcode		
Qualified person	details:			
Qualified person:	Rebecca Green			
ddress:	PO Box 2108	Phone No:	0409 284 422	
	Launceston 7	Fax No:		
icence No:	BFP-116 Email address	ss: adr	min@rgassoci	ates.com.au
Qualifications and nsurance details:	Accredited to report on bushfire hazards under Part IVA of the <i>Fire Services Act 1979</i>	Determ	otion from Column 3 ination - Certificates able Items	of the Director's s by Qualified Persons for
Speciality area of expertise:	Analysis of hazards in bushfire prone areas	Determ	ption from Column 4 nination - Certificate. able Items)	of the Director's s by Qualified Persons for
Details of work:				
	36 Kiama Parade]	Lot No: 81
		216	Certificate o	
Address: The assessable item related to this		216	(description of the certified) Assessable item in - a material; - a design - a form of con - a document - testing of a co	f title No: 139337 e assessable item being acludes — astruction omponent, building system system
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	AKAROA 7 Dwelling s: Bushfire Hazard	(descript Director Persons ge, as pa	(description of the certified) Assessable item in - a material; - a design - a form of con - a document - testing of a co or plumbing s - an inspection	f title No: 139337 e assessable item being ocludes – astruction omponent, building system or, or assessment, performe of Schedule 1 of the ertificates by Qualified

In issuing this certificate the following matters are relevant -

Documents: Bushfire Hazard Assessment Report &

Bushfire Hazard Management Plan (Rebecca Green & Associates, 12 January

2020, Version 1, Job No. RGA-B1289)

Relevant N/A

References: Australian Standard 3959-2009

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

- Assessment of the site Bushfire Attack Level (BAL 29 for Dwelling) to Australian Standard 3959-2009
- 2. Bushfire Hazard Management Plan showing BAL-29 solutions.

Scope and/or Limitations

Scope

This report and certification was commissioned to identify the Bushfire Attack Level for the existing property. <u>All</u> comment, advice and fire suppression measures are in relation to compliance with the *Building Act 2016 & Regulations 2016, Building Code of Australia* and *Australian Standard 3959-2009, Construction of buildings in bushfire-prone areas.*

Limitations

The assessment 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 certificate.
- 2. The report only identifies the size, volume and status of vegetation at the time the inspection was undertaken and cannot be relied upon for any future development.
- 3. Impacts of future development and vegetation growth have not been considered.
- 4. No assurance is given or inferred for the health, safety or amenity of the general public, individuals or occupants in the event of a Bushfire.
- 5. No warranty is offered or inferred for any buildings constructed on the property in the event of a Bushfire.

No action or reliance is to be placed on this certificate or report; other than for which it was commissioned.

I certify the matters described in this certificate.

Qualified person:

Signed:

Certificate No:

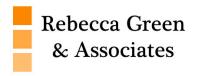
Date:

12 January
2020

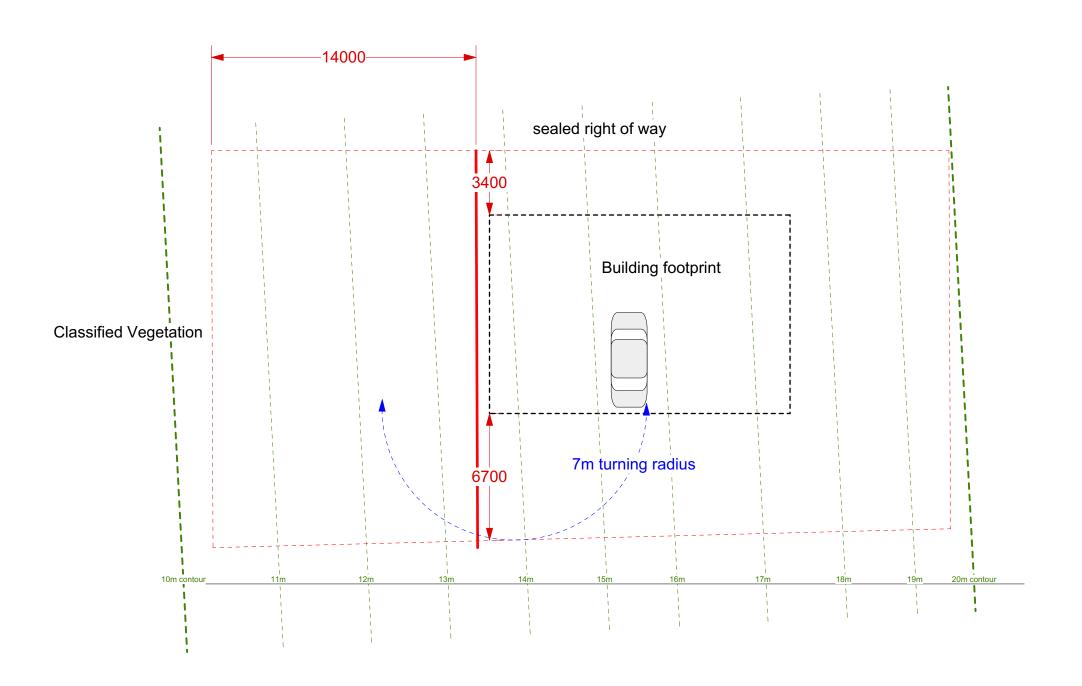


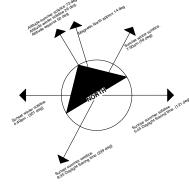
Attachment 1 – AS3959-2009 Construction Requirements

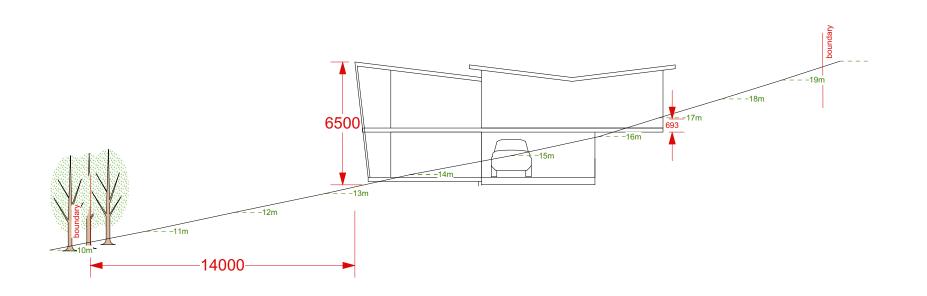
VERANDAS DECKS ETC.	ROOFS	EXTERNAL DOORS	EXTERNAL WINDOWS	EXTERNAL WALLS	FLOORS	SUBFLOOR SUPPORTS	
No special construction requirements	No special construction requirements	No special construction requirements	No special construction requirements	No special construction requirements	No special construction requirements	No special construction requirements	BAL-LOW
As for BAL-19	As for BAL-19	As for BAL-19 except that door familing can be exturally fire resistant (high density) timber	As for BAL-19 except that 4 mm Crade A safety glass can be used in place of 5 mm toughened glass	As for BAL-19	No special construction requirements	No special construction requirements	BAL-12.5
Exclosed sub-loca space—no special regimenent for materials except within 420 mm of ground. No special regimenate for supports or farming. Desirg to be non-consisted or bushine resident within 920 mm horecorially and 420 mm vertically from a glazed element.	Non-combustible covering Bodhwall junction sealed. Openings litted with non-combustable ember gunds. Bood to be fully safeed	Protected by healther statisty or screened with steel, broader or abundant meabs or glased with 5 mm taughened glass, one-conductible or 55 mm sold tither for 450 mm above threshold, media' or bushine resting tither for 460 mm above threshold, media' or bushine resting tither for and for 450 mm above ground, decking, etc., tight fitting with weather stips at base	Protected by bushine shotter, completely screened with sleet, browne or alumination meals of 5 mm tragglemed glace or glass blocks within 450 mm of tragglemed, deck dir. Openable portion media screened with finne of media or media mishioscal PVC-U or bushine modeling timber	Eternal walt- Parts less than 400 mm above grown or decks ets to be of non-combustible material, 6 mm fine comment dad or budding resistant/naturally fine resistant/naturally fine resistant/maturally fine resistant/maturally.	No special construction requirements	No special contraction replacements	BAL-19
Entoned sub-floor space or non-combustible or bookine resistant timber supports. Declarg to be non-combustable	Non-contectible covering Routhwall junction scaled. Opening fitted with non-contectible ember guards. Boof to be fully safeed	Protested by bushine shatter, or screened with steel, boxes or durinium much or non-conductable or 55 mm sold timber for 400 mm above threshold. Metal or bushine resisting timber framed light-fitting with weather steps at base	Protected by bushine shatter or completely accessed with itsel, forece or alumination mech, or 5 mm tougheard glass with operable politics reserved and frame of metal or metal restrictor DV.C.U, or bushine resisting time	Nea-combattible malertal (maceny, brick veneer, mad brick, sended countile, countiel), timber famels their famels and famels rate for the control and clad with 6 mm filter commont sheeting or steel sheeting or bushine resistant timber	Concrete size on ground, enclosure by external weal, metal mesh as above or flooring last than 400 mm above ground level to be now combustible, naturally the resistant tracker or protected on the underside with stating or miseral wool restalation.	Endoure by external wall or by steel, bronze or durnism mest, non-contrastible apports where the subfloor is menclosed, sulturally fin resistant timber stumps or posts on TS som media stumps.	BAL-29
Enclosed sub-floor space or non-combustible supports. Decking to be non-combustible	Non-contestible covering Boodwall junction scaled. Opening fitted with non-combactible ember guarts. Boof to be killy safeted and no roof mounted evaporatible coolers.	Protected by bushine shutter, non-combustible or 35 mm solid timber, metal framed tight-fitting with weather strips at base	Protected by beather studies or 5 mm toughward glass. Openable portion screened with steel or boose mech	Non-combustible material (masoury, birch veneer, mud birch, seatled concelle, concrete) of timber famed or steel famed rails safe on the coticide and clad with 9 mm filter coment sheeting or steel sheeting or be steed for bradithe resistance to AS 1530.8.1	Coverie size on ground, enclosure by external wall or protection of undessize with a rose combustible material such as fine consent sheet or be non-combustible or be tested for beaffine restrance to AS 150.8.1	Hechoard by adminished rider below Schmid Walsh section in table or one-combustities softwar supports or tested for busine resistance to AS 1520.8.1	BAL-40
Exclosed sub-floor space or non-combustible supports. Decising to have no gaps and be non-combustable	Roof with FRL of 30/20/20 or tested for bothine resistance to AS 15/3 8/2. I Roofweat junction scaled. Opening: fitted with non-combostate ember guarts. No nord mannied eraporative coolers.	Protected by besides shutter or tight fitting with weather strips at boos and an FRL of +704-	Protected by busine shutter or FRL of J30 - and operable portion screened with steel or house meals of at tested for business meals of a tested for business and the S S30.8.2	Non-combustible material (masonry, both weeke, must brid, availed concrete, concrete) with minimum birtiscus of 90 mon or a Rill, of ./90/30 when tested from outside or be tested for besidne resistance to AS 1530 8.2	Concrete slab on ground or enclosure by external wall or an FRI of 30,00,00 or protection of insteaded with 30 primite incipient spread of the systems or be tested for bushfile resistance to AS 15,00.8.2	Subflor supports - endoure by extensil will or one-conductable with an Fill of 300-F or be tested for bushline resistance to AS \$200.8.2	BAL-FZ (FLAMEZONE)



Attachment 2 – Proposal Plans







SCALE 1:200 @ A3



Attachment 3 – TFS Advice – Bushfire Performance Solution

Hi Rebecca,

The modelled flame length for a fire coming from the north through the coastal scrub is 12.79m (at 72°). After adjusting for the limited flame width (40m) and the proposed separation (14m), my method 2 calculations indicate that the building will receive a maximum exposure of 25.7kW/m² radiant heat flux.

On this basis, BAL-29 construction with 14m separation would be acceptable as a performance solution. Your report should include the cross-sectional drawings, as this configuration has informed the method 2 assessment.

Please note that should the building design change from what is shown on the plans, the above advice may no longer apply.

Regards,

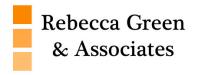
Tom O'Connor

Planning & Assessment Officer Community Fire Safety

Tasmania Fire Service

Service | Professionalism | Integrity | Consideration

Cnr Argyle and Melville Streets | GPO Box 1526 Hobart Tasmania 7001 Phone (03) 6166 5575 | Mobile 0438 101 367 tom.oconnor@fire.tas.gov.au | www.fire.tas.gov.au



References

- (a) Australian Standards, AS 3959-2009, *Construction of buildings in bushfire-prone areas*, Standards Australia, Sydney NSW.
- (b) Resource Management & Conservation Division of the Department Primary Industry & Water September 2006, TASVEG, *Tasmanian Vegetation Map*, Tasmania.
- (c) Tasmanian Government, Land Information System Tasmania, www.thelist.tas.gov.au