SouthernPlanning

# Bushfire Hazard Report

*Cover photo: view to south-east from site frontage.*

## Dwelling Addition

## 9 Tramway Crescent, Margate

1 February 2024

# Bushfire Hazard Report

## Contents:

# Overview

## Project Detail

**Project:** Dwelling Addition
**Site Address:** 9 Tramway Crescent, Margate
**PID:** 7460085
**CT Reference:** 34328/9
**Client:** Ian and Glenys Rojo
**Author:** Adam Smee, Bushfire Hazard Practitioner
**Accreditation No.:** BFP-120
**Scope of Accreditation:** 1, 2, 3a, and 3b
**Email:** adam@southernplanning.com.au
**Phone:** 0404 439 402
**Date:** 1 February 2024
**Version:** v1.0

## Executive Summary

This report considers the bushfire hazard posed to a dwelling addition proposed on the above property. The report concludes that this hazard is acceptable provided that the development proceeds in accordance with the attached recommendations. These recommendations include that the design and construction of the dwelling addition must comply with the construction requirements for BAL19 as prescribed within AS3959:2018.

# Introduction

## Purpose

The purpose of this report is to consider the bushfire hazard posed to a dwelling addition proposed on a site within a bushfire prone area.

## Scope

This Report has been prepared in accordance with the Tasmania Fire Service (TFS) Chief Officer's Bushfire Hazard Advisory Note no.4 (version 4.0). This Advisory Note prescribes the Chief Officer's Approved Form for a Bushfire Hazard Management Plan and the required content for a Bushfire Hazard Report. The Advisory Note states that a Bushfire Hazard Report is:

*An investigation and assessment of bushfire risk to establish the level of hazard exposure, vulnerability, and the required mitigation to achieve an acceptable level of residual risk.*

The scope of the report therefore includes identification of the level of bushfire threat posed to the development in accordance with the Australian Standard for *Construction of Buildings in Bushfire Prone Areas AS3959:2018* (the Australian Standard). The report also considers the vulnerability to bushfires of the proposed development and options for mitigation measures to reduce this risk. These options include identification of the appropriate construction requirements for the development within the Australian Standard. The report also identifies the appropriate bushfire hazard mitigation measures provided within the *Determination – Director of Building Control: Requirements for Building*

*in Bushfire-Prone Areas (transitional)* (the Director's Determination). The report provides a conclusion regarding the residual risk that would remain to the development from bushfire if these mitigation measures are implemented.

## Limitations

The report is limited to an assessment of the bushfire hazard posed to the proposed development as prescribed in the Australian Standard and as required by the Director's Determination. The report does not offer comment on the environmental impact of the proposed development, including that of any vegetation management required to implement any recommended bushfire hazard mitigation measures.

## Disclaimer

Given the above scope and limitations, no responsibility is taken by the author for any loss arising as a result of any matter not considered in the Australian Standard or the Director's Determination. Neither is any responsibility taken by the author for any loss arising as a result of failure to comply with the recommendations made in this report. Attention is drawn to the Australian Standard's foreword which states that it is:

*Primarily concerned with improving the ability of buildings in designated bushfire-prone areas to better withstand attack from bushfire thus giving a measure of protection to the building occupants (until the fire front passes) as well to the building itself*.

Compliance with the Australian Standard does not guarantee that no loss of life or property will occur as a result of bushfire, as it further states:

*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.*

Attention is also drawn to current TFS advice which states that in catastrophic Fire Danger Rating conditions:

*Homes cannot withstand fires in these conditions. You may not be able to leave, and help may not be available.*

It should also be noted that the Fire Danger Index (FDI) prescribed for the design of buildings within bushfire prone areas in Tasmania is FDI50. However, please note that in severe and extreme conditions the actual FDI may significantly exceed this figure and the bushfire protection measures identified in this report should not be relied upon in these situations.

## The Author

The author is a qualified land use planner with over fifteen years' experience in local government; the majority spent working in planning in a rural context. The author has successfully completed the University of Technology Sydney's *Development and Building in Bushfire Prone Areas Short Course*. The author is accredited by the TFS to assess bushfire hazard and to certify Bushfire Hazard Management Plans for buildings or extensions and for subdivisions involving less than ten lots. The author has been practicing as Bushfire Hazard Practitioner since 2013.

### Site Visit

A site visit was conducted on 28 January 2024.

### Proposal

The proposal is to construct an addition to the dwelling on the subject property. The proposed addition would have a footprint of less than 20m² and be at the northern end of the dwelling. The proposal would not affect the existing vehicular access to the site from Tramway Crescent. Reticulated services are not available on the site so the development would rely upon onsite services, including an onsite water supply. While any habitable building is vulnerable to bushfire, the proposed development is not identified as a Vulnerable Use by either the Bushfire Prone Areas Code or the *Building Regulations 2016*.

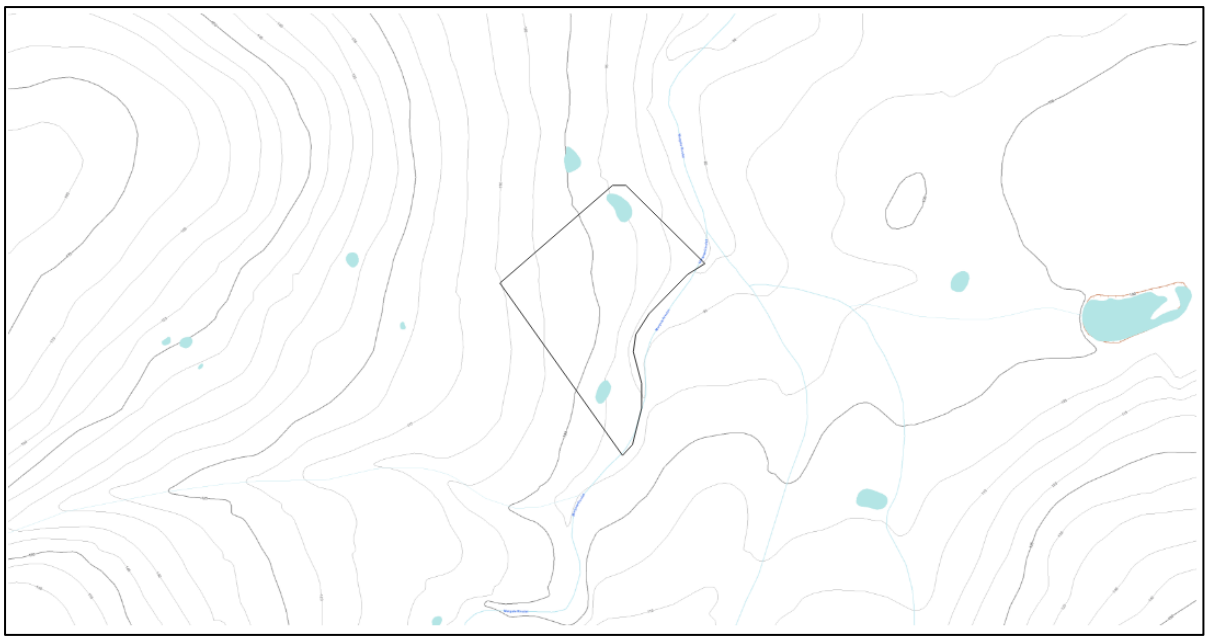
## Site Description

The site is a rural residential property to the south-west of the Margate township. The property has an area slightly greater than 2ha and frontage to both Tramway Crescent, on its north-western boundary, and to Chandlers Road on its north-eastern boundary. The Margate Rivulet is contiguous with the property's south-eastern boundary. The property has been partly cleared of native vegetation but there is an area of native forest close to the rivulet. The site is surrounded by similar rural residential use and development. The site is mapped within the Bushfire Prone Areas Overlay of the *Kingborough Interim Planning Scheme 2015.*

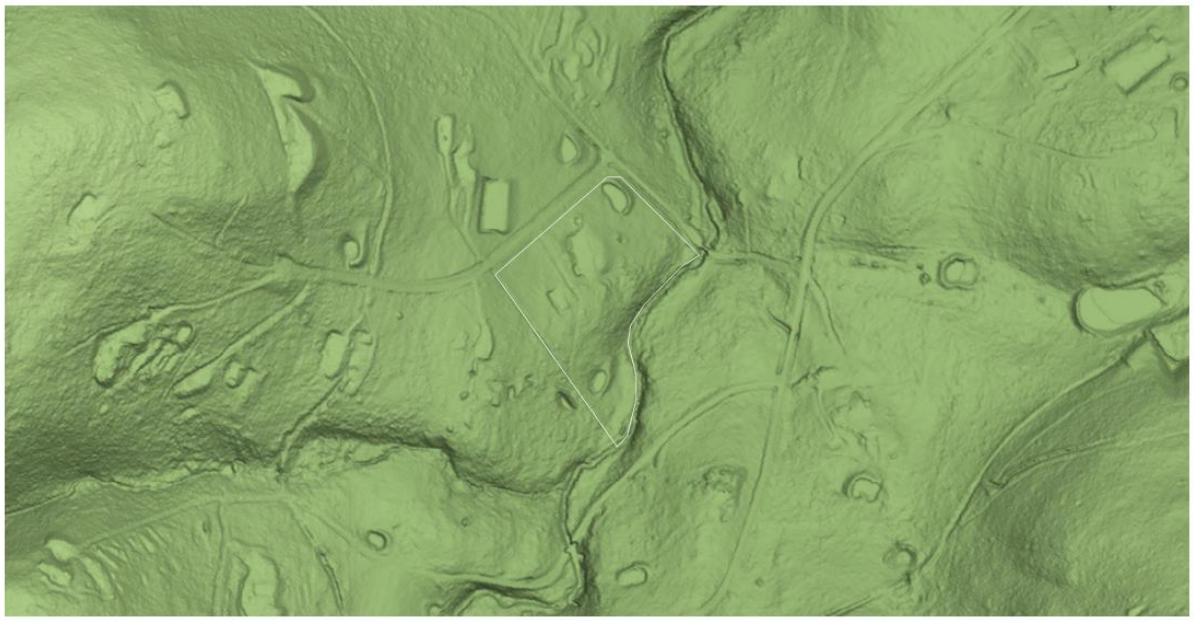
*Aerial view of subject property (outlined in white) and surrounding land (source: State Aerial Photo accessed via LISTmap 29/1/2024).*

### Topography

The site is close to the base of the valley that is followed by the Margate Rivulet. The rivulet flows from the SSW to the NNE at the point near the site. Tramway Hill forms the western side of the valley at this point. The summit of this hill is approximately 600m to the west of the site. The site is generally at a similar level as the nearby land to the north and south as this land occupies a similar level on the lower slopes of the hill. The site is above the level of the land between it and the rivulet to the east and south-east but the land beyond rises away from the rivulet.



*Topographical relief (5m contours) of subject property (outlined in black) and surrounding land (source: LISTmap accessed 29/1/2024).*



*Hillshade relief of subject property (outlined in white) and surrounding land (source: LISTmap accessed 29/1/2024).*

## Site Assessment

### Vegetation

The area of remnant native vegetation on the subject property includes mature Eucalypt trees that are over 20m high. This area has a foliage cover greater than 30%. Therefore, this vegetation is classified within the Group A Forest classification in accordance with Table 2.3 of the Australian Standard. This vegetation also extends to the north-east of the site as it is contiguous with the Margate Rivulet.

The rural residential land to the north-west and south-west has been cleared of native vegetation within 100m from the site. Therefore, the vegetation in these directions is classified within the Group G Grassland classification in accordance with Table 2.3.

### Slope

While the site is above the level of the land between it and the rivulet to the east and south-east, the land on the opposite side rises away from the site. Therefore, the effective slope in these directions is considered to be upslope and 0° as there is only limited distance between the site and the rivulet. The site is further from the rivulet to the north-east. Therefore, the effective slope in this direction is considered to be downslope and between 5° and 10°. The site is level with or below the level of the land in the remaining directions, so the effective slope is level or upslope and 0°.

### Distances

The proposed development would be provided with adequate separation from bushfire prone vegetation within the property boundaries.

### Bushfire Attack Level

Table 2.6 within the Australian Standard prescribes Bushfire Attack Levels for development based upon the relevant Fire Danger Index, its distance from unmanaged vegetation, the type of bushfire prone vegetation nearby, and the gradient beneath the vegetation. A BAL assessment must be based upon the highest BAL posed to a development. As demonstrated in the attached Hazard Management Areas Table, the Bushfire Attack Level posed to the proposed dwelling addition would be BAL19.

## Determination – Director of Building Control: Requirements for Building in Bushfire-Prone Areas (transitional)

### Construction Requirements

The proposal complies with clause 4.1 of the Director's Determination as the proposed building work would be carried out in accordance with the construction requirements prescribed for BAL19 within the Australian Standard.

### Property Access

The proposed access arrangements for the development must comply with clause 4.2 of the Director's Determination. As the existing driveway that would provide access to the building would also provide access to an onsite fire fighting water supply, these arrangements must comply with the standards prescribed in Row B of Table 4.2 of the Director's Determination.

The driveway has an all-weather surface of compacted gravel and is likely to have the required 20 tonne carrying capacity. The driveway does not cross a watercourse so does not include a bridge or culvert. The driveway has the minimum 4m trafficable width and the required vertical and horizontal clearances as it does not pass through bushfire prone vegetation.

While the access point to the property is above the level of the site, the driveway would complies with the maximum gradient prescribed for unsealed roads (10°) and the maximum prescribed cross-fall (3°). The driveway does not contain any significant curves. A turning area suitable for fire fighting vehicles is provided at the end of the driveway.

Therefore, the proposed access arrangements comply with the relevant standards prescribed within Table 4.2. The proposal is therefore in accordance with sub-clause 4.2 (2)(a) of the Director's Determination. The access arrangements also comply with subclauses 2(b) and 2(c) as they provide

access to within 90m of all exterior elements of the development (measured as a hose-lay) and a hardstand for the fire fighting water point discussed below.

### Water Supply for Fire Fighting

The proposal complies with clause 4.3 of the Director's Determination as a static water supply for fire-fighting would be provided in accordance with Table 4.3B. An existing water tank adjacent to a shed on the property would provide this supply. The tank must provide the specified minimum quantity of 10,000L and be constructed from the required materials.

Any fittings, pipework, and accessories associated with the onsite supply must comply with the requirements within Element C of Table 4.3B. Signage must be provided for the fire fighting water point in accordance with the TFS Guidelines referred to in Element D. A hardstand area for fire fighting appliances would be provided by the turning area within the required distance from the fire fighting water point but greater than the minimum distance specified from building area. The hardstand must have the required width and form part of the proposed access to the development.

### Hazard Management Areas

The proposal complies with clause 4.4 of the Director's Determination for, as demonstrated on the attached Bushfire Hazard Management Plan, the development would be provided with the Hazard Management Areas required to achieve BAL19. The lot was not provided with a BAL at the time of subdivision.

## Recommendations

The following bushfire hazard management and mitigation measures are required to achieve a tolerable level of residual risk for the proposed use and development.

### Construction Requirements

(a) The development must comply with the general construction requirements prescribed within Section 3 and the specific requirements prescribed for a Bushfire Attack Level of BAL19 within Section 6 of the Australian Standard for the *Construction of Buildings in Bushfire Prone Areas AS3959:2018*.

(b) Any plans submitted to the project Building Surveyor together with an application for a Certificate of Likely Compliance (CLC) for the proposed building work must demonstrate likely compliance with the above sections of the Standard. Plans submitted for CLC approval should be annotated to include the relevant construction requirements prescribed within the Australian Standard.

### Property Access

Vehicular access to the building must:

1) Meet the property access requirements described in Row B of Table 4.2 of the *Determination – Director of Building Control: Requirements for Building in Bushfire-Prone Areas (transitional)*. Specifically the access must comply with the following requirements:
    (a) All-weather construction,
    (b) Load capacity of at least 20 tonnes, including 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° (sealed sections) or 10° (unsealed sections),
(j) Include a turning area for fire appliances provided by either a "T" or "Y" shaped turning head 4m wide and 8m long, or, a turning circle with a minimum outer radius of 10 metres.

2) Include access from a public road to within 90 metres of the furthest part of the building measured as a hose lay.

### Water Supply for Fire Fighting

1) The building must be provided with a static water supply dedicated for fire fighting purposes which meets the following requirements of Table 4.3B of the *Determination – Director of Building Control: Requirements for Building in Bushfire-Prone Areas (transitional)*:
   (a) The fire fighting water point of the water supply must be within 90m of the furthest parts of the building area, measured as a hose lay;
   (b) The water supply must be a minimum of 10,000L and must not be used for any other purpose including fire fighting sprinkler or spray systems; and,
   (c) Any above ground water supply must be metal, concrete, or lagged by non-combustible materials.
2) 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;
   (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) 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 – 600mm above ground level; and
      (iv) Protected from possible damage, including damage by vehicles.

3) 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 that complies with the following requirements (please refer to Appendix 5 for further guidance):
   (a) Be marked with the letter "W" contained within a circle with the letter in upper case of not less than 100 mm in height;
   (b) Be in fade-resistant material with white reflective lettering and circle on a red background;
   (c) Be located within one metre of the water connection point in a situation which will not impede access or operation; and,

(d) Be no less than 400 mm above the ground.

4) 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;
   (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.

### Hazard Management Areas

(a) Hazard Management Areas (HMA) must be established substantially in accordance with the attached BHMP such that fuels are reduced sufficiently and other hazards are removed such that the fuels and other hazards do not significantly contribute to bushfire attack.

(b) The HMA must be maintained in a "minimal fuel" condition throughout the life of the development. According to clause *2.2.3.2(f)* of the Australian Standard: "minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm)".

(c) Any plants planted within the HMA should be listed as "Low Flammability" species in the TFS publication *Fire Resisting Garden Plants* (see Appendix 4). Plants listed as "Moderate Flammability" or "High Flammability" or similar species should not be planted within the HMA. Any plants listed as "Moderate Flammability" that are retained within the HMA should "not be allowed to dominate your garden and should be well maintained, being especially careful to remove dead material before it accumulates". Plants listed as "High Flammability" should not be retained within the HMA.

### Other

The property owner should develop a Bushfire Plan for the site in accordance with the TFS *Bushfire Safety Guide 2022*.

## Conclusion

The proposed use and development of the site is considered likely to achieve and maintain a tolerable level of residual bushfire risk for the occupants and assets on the site and adjacent land provided that the recommendations made above are implemented. Given the nature of the proposed development, it is considered unlikely to cause or contribute to the occurrence or intensification of bushfire on the site or on adjacent land. This conclusion is based upon:

i) the nature, intensity, and duration of the proposed use,
ii) the type, form, and duration of the proposed development,
iii) the above Bushfire Attack Level assessment, and,
iv) the nature of the bushfire hazard mitigation measures recommended above.

ADAM SMEE
BUSHFIRE HAZARD PRACTITIONER (BFP-120)

## Appendix (1) Site Folio plan

the List

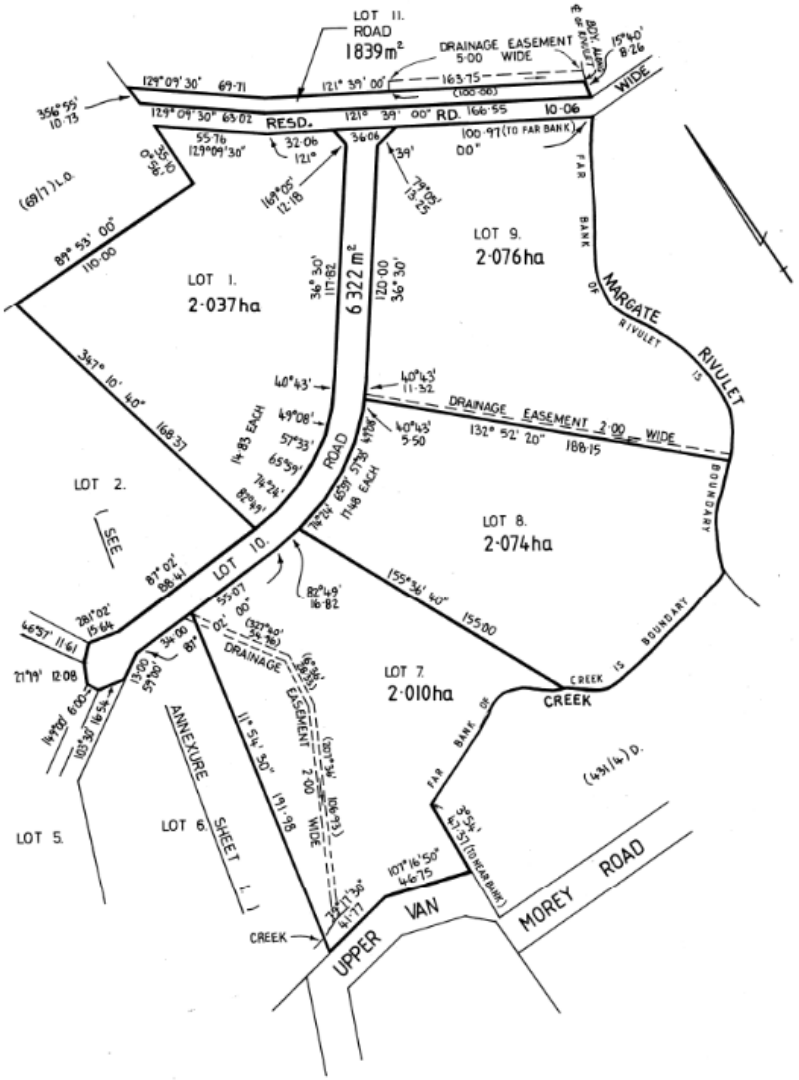
**FOLIO PLAN**

RECORDER OF TITLES

*Issued Pursuant to the Land Titles Act 1980*

Tasmanian Government

| | | |
|---|---|---|
| ANNEXURE SHEET No. 2 (of 2 annexures) to plan by Surveyor | This sheet contains detailed drawings of parcels shown on the index plan to which it is attached, which plan is verified by my certificate dated 3-11-'87 and that certificate extends to the detail shown on this sheet. Surveyor D. J. McAVOY | Registered Number: S. P34328 |
| Signed for the purposes of identification Council Clerk | Owner: A.S. & J.V. WARK Title Reference: CgT 3775/80 & 3448/49 | Scale 1: 1500 Measurements in Metres |




Search Date: 01 Sep 2023 Search Time: 09:16 AM Volume Number: 34328 Revision Number: 01 Page 4 of 4

Department of Natural Resources and Environment Tasmania www.thelist.tas.gov.au

*Note: subject property is lot 9 on the above plan.*

## Appendix (2) Hazard Management Areas Table

| | North-East | South-East | South-West | North-West |
|---|---|---|---|---|
| Vegetation Type: | Group A Forest | Group A Forest | Group G Grassland | Group G Grassland |
| Relationship to site: | Downslope | Upslope* | Upslope | Upslope |
| Effective slope: | >5° to 10° | 0° | 0° | 0° |
| Separation distance: | 60m | 23m^ | 60m | 20m |
| Assessed BAL: | BAL12.5 | BAL19 | BAL12.5 | BAL12.5 |
| Proposed BAL: | **BAL19** | | | |
| HMA required: | 34m | 23m | 10m | 10m |

Notes: *see Slope section of the report, ^to existing tree line.

## Appendix (3) Site Photos

*Photo 1: view to north-east from the intersection of Tramway Crescent and Chandlers Road.*

*Photo 2: view to NNW from the intersection of Tramway Crescent and Chandlers Road.*

*Photo 3: view to north from access to site.*

*Photo 4: view to west from access to site.*

*Photo 5: view to south-west from access to site.*

*Photo 6: view to south-east from access to site.*

*Photo 7: view to south-east from site frontage.*

# Appendix (4) TFS Fire Resisting Garden Plants

## Introduction

All vegetation will burn in a bushfire and pose a hazard to people and their homes. However, not all vegetation has the same flammability and there is great potential for people living in bushfire prone areas to reduce their fire hazard by changing the plants in their gardens.

## Flammability Groups

In the following list E denotes an exotic plant, TN a plant native to Tasmania, AN a plant native to mainland Australia and X a known environmental weed.

*Corymbia maculata* - Spotted Gum

## High Flammability

These plants have been shown to be highly flammable and should not be planted or allowed to remain inside your house's Building Protection Zone. They should also be avoided in the Fuel Modified Zone. Move these plants away from your house and replace them with less flammable plants.

| | | |
|---|---|---|
| *Acacia dealbata* | TN | Silver Wattle |
| *Acacia stricta* | TN | Hop Wattle |
| *Acacia verticillata* | TN | Prickly Moses |
| *Acer palmatum* | E | Japanese Maple |
| *Acmena smithii* | AN | Lilly Pilly |
| *Aesculus hippocastanum* | E | Common Horse Chestnut |
| *Allocasuarina cunninghamiana* | AN | River Sheoak |
| *Angophora floribunda* | E | Rough-barked Apple |
| *Bambusa vulgaris* | E | Bamboo |
| *Banksia integrifolia* | AN | Coast Banksia |
| *Banksia marginata* | TN | Honeysuckle |
| *Betula pendula* | E | Silver Birch |
| *Buddleia davidii* | E | Butterfly Bush |
| *Callistemon citrinus* | AN | Common Red Bottlebrush |
| *Callitris rhomboidea* | TN | Oyster Bay Pine |
| *Cassia javanica* | E | Pink Cassia |
| *Chamaecyparis lawsoniana* | E | Lawson Cypress |
| *Cinnamomum camphora* | E | Camphor Laurel |
| *Citrus limon* | E | Lemon |
| *Cortaderia argentea* | E X | Pampas Grass |
| *Corymbia maculata* | AN | Spotted Gum |
| *Cupressus funebris* | E | Mourning Cypress |
| *Dodonaea viscosa* | TN | Native Hop |
| *Elaeocarpus reticulatus* | TN | Blueberry Ash |
| *Eucalyptus amygdalina* | TN | Black Peppermint |
| *Eucalyptus globulus* | TN | Blue Gum |
| *Eucalyptus obliqua* | TN | Brown Stringybark |
| *Eucalyptus paniculata* | AN | Grey Ironbark |
| *Eucalyptus pulchella* | TN | White Peppermint |
| *Eucalyptus viminalis* | TN | White Gum |
| *Exocarpos cupressiformis* | TN | Native Cherry |
| *Flindersia australis* | AN | Crow's Ash |
| *Gahnia grandis* | TN | Cutting Grass |
| *Gleditsia tricanthos* | E | Honey Locust |
| *Grevillea x Poorinda* | AN | Poorinda Cultivars of Grevilleas |
| *Grevillea robusta* | AN | Silky Oak |
| *Grevillea rosmarinifolia* | AN | Rosemary Grevillea |
| *Ilex aquifolium* | E X | Holly |
| *Lepidosperma laterale* | AN | Sword Rush |
| *Leptospermum lanigerum* | TN | Woolley Teatree |
| *Leptospermum scoparium* | TN | Manuka, Teatree |
| *Lomandra longifolia* | TN | Saggs |
| *Melaleuca alternifolia* | AN | Paperbark |
| *Monstera deliciosa* | E | Monstera |
| *Nandina domestica* | E | Sacred Bamboo |
| *Nicotiana glauca* | AN | Tobacco Bush |
| *Pinus elliottii* | E | Slash or Elliott's Pine |
| *Pinus patula* | E | Mexican or Weeping Pine |
| *Pittosporum undulatum* | AN X | Sweet Pittosporum |
| *Platanus x acerifolia* | E | Plane Tree |
| *Poa sp.* | AN | Poa Grass |
| *Populus sp.* | E | Poplar |
| *Quercus robur* | E | English oak |
| *Spiraea catoniensis* | E | May |
| *Tasmannia lanceolata* | TN | Native Pepper |
| *Ulex europaeus* | E X | Gorse |
| *Viburnum opulus* | E | Guelder Rose |

Text by Mark Chladil and Jennifer Sheridan.
Photographs of selected plants by Alan Macfadyen, Royal Tasmanian Botanical Gardens. Thanks to Natalie Papworth, Royal Tasmanian Botanical Gardens.
Original research and publication supported by the Tasmanian Fire Research Fund. Revision 3, 2006.

## Moderate Flammability

These plants should be avoided in the Building Protection Zone. They should not be allowed to dominate your garden and should be well maintained, being especially careful to remove dead material before it accumulates.

*Acacia melanoxylon - Blackwood*

| | | |
|---|---|---|
| *Acacia baileyana* | AN X | Cootamundra Wattle |
| *Acacia decurrens* | AN | Green Wattle |
| *Acacia mearnsii* | TN | Black Wattle |
| *Acacia melanoxylon* | TN | Blackwood |
| *Acacia podalyrifolia* | AN | Mt Morgan Wattle |
| *Actinidia chinensis* | E | Kiwi Fruit |
| *Araucaria heterophylla* | AN | Norfolk Island Pine |
| *Atherosperma moschatum* | TN | Sassafras |
| *Bedfordia salincina* | TN | Blanket Bush |
| *Beyeria viscosa* | TN | Pinkwood |
| *Brachychiton acerifolius* | AN | Illawarra Flame Tree |
| *Brachychiton discolor* | AN | Lacebark |
| *Brachychiton rupestris* | AN | Bottle Tree |
| *Calodendrum capense* | E | Cape Chestnut |
| *Canna indica* | E | Canna Lily |
| *Cassia floribunda* | E | Smooth Cassia |
| *Ceanothus papillosus* | E | Pacific Blue |
| *Chaenomeles japonica* | E | Flowering Quince |
| *Chrysanthemum indicum* | E | Chrysanthemum |
| *Citrus nobilis* | E | Mandarin |
| *Coleonema pulchrum* | E | Diosma |
| *Cotoneaster glaucophyllus* | E X | Cotoneaster |
| *Cucurbita maxima* | E | Pumpkin |
| *Cymbopogon citratus* | E | Lemon Grass |
| *Cyphomandra betacea* | E | Tamarillo |
| *Delonix regia* | E | Poinciana |
| *Dicksonia antarctica* | TN | Man Fern |
| *Diospryros sp.* | E | Persimmon |
| *Eriobotrya japonica* | E | Loquat |
| *Escallonia macrantha* | E | Escallonia |
| *Euryops pectinatus* | E | Yellow Daisy Bush |
| *Genista monspessulana* | E X | Montpellier Broom |
| *Koelreuteria paniculata* | E | Golden Rain Tree |
| *Lantana camara* | E | Lantana |
| *Ligustrum lucidum* | E | Large-leaved Privet |
| *Liquidambar styraciflua* | E | Liquidamabar |
| *Magnolia grandiflora* | E | Magnolia |
| *Morus sp.* | E | Mulberry |
| *Myoporum insulare* | AN | Boobyalla |
| *Nerium oleander* | E | Oleander |
| *Olearia argophylla* | TN | Musk |
| *Photinia glabra var. rubens* | E | Chinese Fire Bush or Red-leafed Photinia |
| *Pittosporum bicolor* | TN | Cheesewood |
| *Pteridium esculentum* | TN | Bracken Fern |
| *Rhododendron sp.* | E | Rhododendron |
| *Rosa sp.* | E X | Roses, Briars |
| *Salix babylonica* | E | Weeping Willow |
| *Salix chilensis* | E | Pencil Willow |
| *Sorbus aucuparia* | E | Rowan |
| *Spathodea campanulata* | E | African Tulip Tree |
| *Syringa vulgaris* | E | Lilac |
| *Weigela florida* | E | Fairy Trumpets |
| *Zieria arborescens* | TN | Stinkwood |

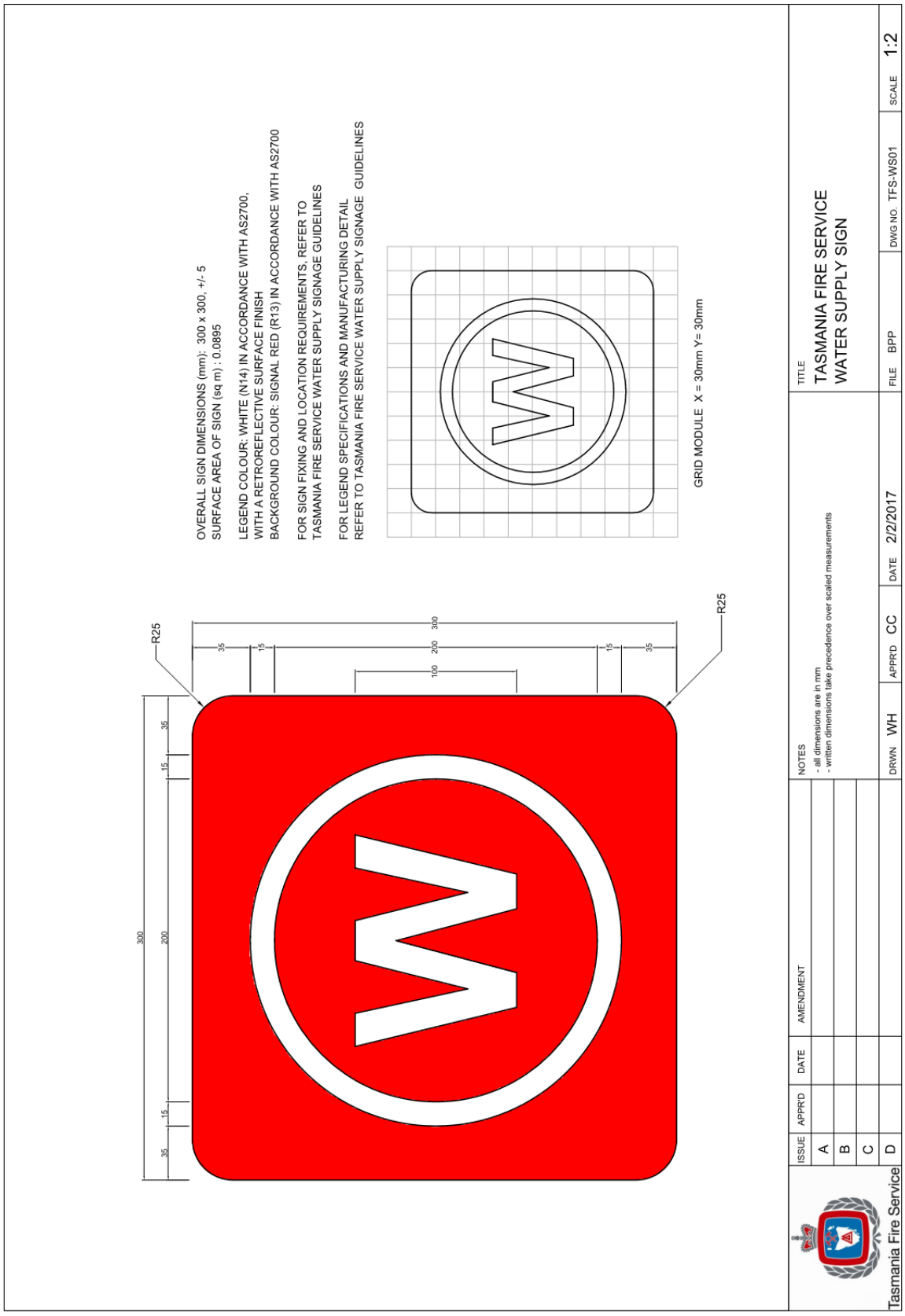
## Low Flammability

These plants are acceptable in the Building Protection Zone and will be valuable replacements for more flammable plants.

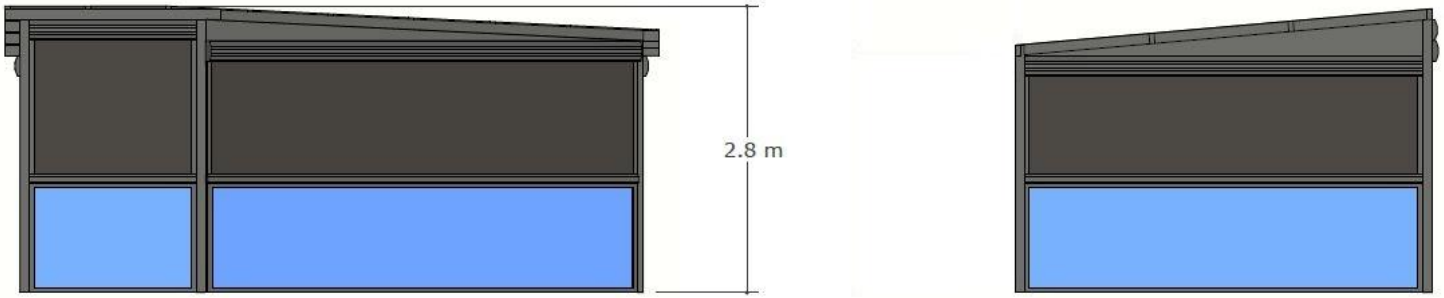
*Hymenosporum flavum - Native Frangipanni*

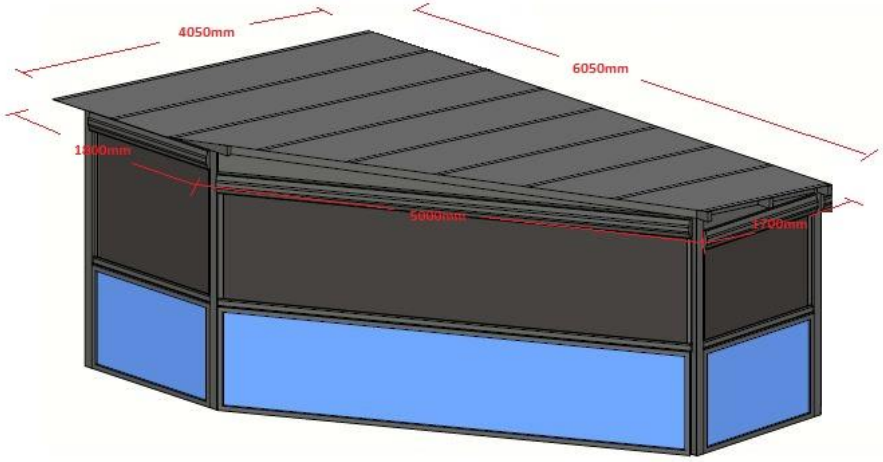
| | | |
|---|---|---|
| *Artemisia sp.* | E | Wormwood or Angels Hair |
| *Camellia sp.* | E | Camellias |
| *Capsicum annum var. fasciculatum* | E | Chilli |
| *Diplarrena moraea* | TN | White Flag Iris |
| *Gazania hybrida* | E | Treasure Flower |
| *Hebe speciosa* | E | Veronica |
| *Hemerocallis aurantiaca* | E | Day Lilly |
| *Hydrangea macrophylla* | E | Hydrangea |
| *Hymenocallis littoralis* | E | Spider Lily or Spider Flower |
| *Hymenosporum flavum* | AN | Native Frangipanni |
| *Lampranthus aurantiacus* | E | Pigface or Iceplant |
| *Lavendula angustifolia* | E | English Lavender |
| *Passiflora herbertiana* | AN | Native Passionfruit |
| *Pelargonium peltatum* | E | Geranium |
| *Pomaderris apetala* | TN | Dogwood |
| *Prunus sp.* | E | Plum |
| *Solanum melongera* | E | Eggplant |

## Appendix (5) TFS Water Supply Sign



## Appendix (6) Proposal Plans




JOSHUA WING

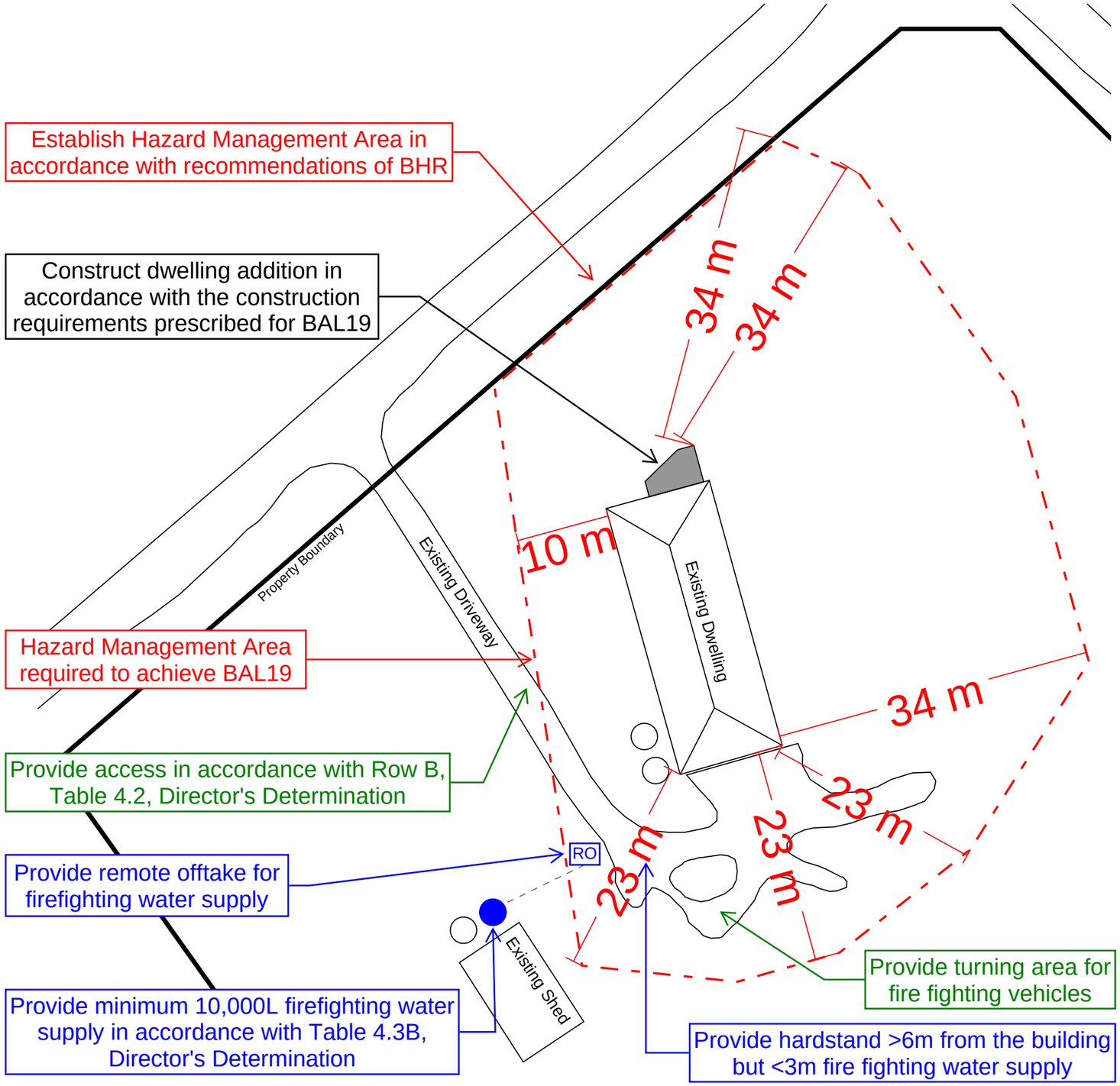
COLOUR(S)
FRAME - WOODLAND GREY
TRIM/GUTTER - WOODLAND GREY
POSTS - WOODLAND GREY
ROOF - GREY 70%

KINGS OUTDOOR LIVING

Please note the colours, sizes, layouts and pictured products are for visual purposes only and are not for construction or to be treated as a plan of any sort. Colours, sizes, layouts and pictured products may change in the final product/installation process. Multiple products may be pictured but not all included in one quote so please refer to your individual quotes for all inclusions/exclusions.

## Appendix (7) Bushfire Hazard Management Plan

Note: the following BHMP satisfies sub-regulation 11F (1) of the *Building Regulations 2014* which remains in effect pursuant to the transitional arrangements set-out in Schedule 6 of the *Building Regulations 2016*.




# BHMP Endorsement

SouthernPlanning

a) This BHMP applies to 9 Tramway Crescent, Margate (CT 34328/9, PID 7460085).
b) The certifying Bushfire Hazard Practitioner is Adam Smee, accreditation no. BFP-120, scope of accreditation 1, 2, 3A, and 3B.
c) This BHMP applies to the dwelling addition shown on the plans prepared by Kings Outdoor Living, dated 19/6/2023.
d) The bushfire hazard management and protection measures identified in the Recommendations section of the Bushfire Hazard Report (BHR) prepared by Southern Planning, dated 1/2/2024 must be implemented.
e) This BHMP satisfies the deemed to satisfy requirements for clauses 4.1, 4.2, 4.3, and 4.4 of the *Director's Determination – Requirements for Building in Bushfire-Prone Areas (transitional)*.
f) The above BHR is a schedule to this BHMP. This BHMP must be read in conjunction with the BHR.

| REV | AMENDMENTS | DRAWN | DATE | APPR. |
|---|---|---|---|---|
| E | | | | |
| D | | | | |
| C | | | | |
| B | | | | |
| A | | | | |

SouthernPlanning
22 Jerrim Place
Kingston Beach 7050
PHONE: 0404 439 402
EMAIL:
adam@southernplanning.com.au

*OWNER:* *Ian and Glenys Rojo*
*TITLE REFERENCE:* *CT 34328/9*
*LOCATION:* *9 Tramway Crescent, Margate*

**BHMP**

| *Date:* | *Version:* |
|---|---|
| *1-2-2024* | *v1.0* |
| *Scale:* | *Municipality:* |
| *1:500 (A3)* | *Kingborough* |