



ORDINARY MEETING OF COUNCIL

ATTACHMENTS TO REPORTS

21 November 2022

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SD 2144 & DA 215/2021 183 Back Cam Road SOMERSET

Proposal: Subdivision (1 into 2 lots) & Dwelling and Outbuilding (Shed)

Discretionary Matter: Suitability of a site or lot for use or development 13.4.1 (P2), Subdivision 13.4.7 (P2), Reticulation of an electricity supply to new lots on a plan of subdivision 13.4.8 (P1), Development in proximity to a water body, watercourse or wetland E10.6.1 (P1)

**REPRESENTATIONS CLOSE ON:
Wednesday 12 October 2022**

Please Note:

All documents contained herewith are for public viewing only and must not be removed from the Council offices.

7902963

Documents Enclosed
Application Form
Site Notice
Location Map
Titles
Site and Soil Evaluation Report & On-site Wastewater Management System Report
Planning Report
Bushfire Risk Assessment Report
Plans



PLANNING PERMIT APPLICATION APPLICATION FOR PLANNING APPROVAL UNDER SECTION 51, LAND USE PLANNING & APPROVALS ACT 1993

PERMITTED APPLICATION - Assessment and determination of a permit application under S58 Land Use Planning and Approvals Act 1993	\$250.00 plus \$1.15 per \$1,000 of value for use or development
DISCRETIONARY APPLICATION - Assessment and determination of a permit application under S57 Land Use Planning and Approvals Act 1993	\$350.00 plus \$1.50 per \$1,000 of value for use or development + advertising fee
Level 2 "Environmental Activity - Additional charge to permit application	\$460.00 + advertising fee by quote
Advertising fee will be reimbursed if no advertising is required	
Please refer to www.warwyn.tas.gov.au (Council Services - Planning Services - Planning Fees) for all other fees	

Is a hard copy of planning permit and endorsed documents required? Yes ☒ No ☐

- Value of work (inc GST) \$ 190 000 Contract Price ☐ Estimate ☒
- Development Address 183 Back Cam Rd. Somerset
- Full Name of Applicant(s) Asher clay Sutherland, Tabitha Rose Sutherland
 Contact Details: Address: 183 Back Cam Rd. Somerset [PO Box 232]
 Email Address asher.clay.sutherland@gmail.com
 Telephone - Day ☐ Mobile 0474656216
 For requests in hardcopy format all correspondence in relation to this application, will be sent to the postal address, otherwise all correspondence will be forwarded to the email address)

- Would you like the contact address recorded above to be applied for all future Council correspondence? (including rates/animal control etc)? Yes ☒ No ☐

WHERE THE APPLICANT IS NOT THE OWNER

In accordance with Section 52 of the Land Use Planning and Approvals Act 1993 if the applicant for the permit is not the owner of the land in respect of which the permit is required, the applicant must include in the application for the permit, a declaration that the applicant has notified the owner of the intention to make the application.

In the event that the property is owned or managed by the Crown or Council, this application is to be signed by the relevant Crown Minister responsible, or General Manager of the Council, and accompanied by written permission of the Minister/General Manager to the making of this application.

Name of Property Owner (see authorisation below)

Full Name Graham Hodge, Leslie Hodge Telephone - Home 6435 1774
 Address 183 Back Cam Rd. Somerset Telephone Work/Business ☐

Applicant's Notification to Owner

I Asher clay Sutherland, Tabitha Rose Sutherland
 Full Name of Applicant(s)
 of 183 Back Cam Rd. Somerset
 Applicant's Address

Declare that I/we have notified the owner(s) of the property(ies) of the intention to make this application.
 I/We understand that in accordance with Section 52(2) of the Land Use Planning and Approvals Act 1993 a person must not obtain or attempt to obtain a permit by wilfully making, or causing to be made, any false representation or declaration either orally or in writing.

Applicant's Signature(s) [Signature] [Signature]

6. Proposed Development (Fully describe intended use of land or premises)

Sub-division, shed, dwelling

7. Supporting Information if necessary to explain special features of the proposal.
(Attach separate sheet if required)

To include –

a. One Copy (electronic copy if available) of any plan(s) and/or specification(s) for the proposed development, showing where applicable:

- ☐ i. Sufficient information to demonstrate compliance with all applicable standards, purpose statements in applicable zones and codes, any relevant local area objectives or desired future character statements;
- ☐ ii. a full description of the proposed use or development;
- ☐ iii. a full description of the manner in which the use or development will operate;
- ☐ iv. a site analysis and site plan at an acceptable scale;
- ☐ v. a detailed layout plan of the proposed buildings with dimensions at a scale of 1:100 or 1:200;
- ☐ vi. a plan of the proposed landscaping;
- ☐ vii. car parking facilities and capacity;
- ☐ viii. area of clearing of trees and bushland;
- ☐ ix. size, position, colour, illumination, fixing or support and other design details of advertising sign(s).

b. A full copy of your title shall also accompany the application.

Title Certificate ☐

Title Plan ☐

Schedule of Easements ☐

c. Relevant engineering pre-lodgement approvals

Access ☐

Stormwater ☐

8. Present use of site and/or buildings – full description

Residential

9. Car Parking

Floor Area

Site Area

Existing on site

Existing m²

.....m²

Total no. proposed

Proposed m²

Totalm²

Questions 10 to 13 relate to Commercial and Industrial Uses and Developments only

10. What days and hours of operation are proposed?

Monday to Friday: From a.m. to p.m.
Saturday: From a.m. to p.m.
Sunday: From a.m. to p.m.

11. Number of Employees?

Existing
Proposed

12. Vehicles visiting or delivering to or from the site?

Type	No.	Trips per day
.....		
.....		

13. What type of machinery is to be installed or used?

Type	No.
.....	
.....	

DECLARATION BY APPLICANT (mandatory)

I declare that the information given is a true and accurate representation of the proposed development. I understand that the information and materials provided with the development application may be made available to the public. I understand that the Council may make such copies of the information and materials as in its opinion are necessary to facilitate a thorough consideration of the Permit Application. I have obtained the relevant permission of the copyright owner for the communication and reproduction of the plans accompanying the development application for the purposes of assessment of that application. I indemnify the Waratah-Wynyard Council for any claim or action taken against it in respect of breach of copyright in respect of any of the information or material provided.

I/We hereby acknowledge that Section 20(a) of the *Local Government Act 1993* provides the power for persons authorised by the General Manager to enter land without notice in relation to an application by the owner or occupier for a licence, permit or other approval given by the council.

Signature(s)
(all applicants to sign)

Date 21/09/2022



NOTICE OF PROPOSED DEVELOPMENT

Notice is hereby given that an application has been made for the following development:-

NO:	SD 2144 & DA 215/2021
LOCATION:	183 Back Cam Road SOMERSET
APPLICANT:	Micheal Wells (EnviroPlan)
ZONING:	Rural Living
USE CLASS:	Residential
PROPOSAL:	Subdivision (1 into 2 lots) & Dwelling and Outbuilding (Shed)
DISCRETIONARY MATTER:	Suitability of a site or lot for use or development 13.4.1 (P2), Subdivision 13.4.7 (P2), Reticulation of an electricity supply to new lots on a plan of subdivision 13.4.8 (P1), Development in proximity to a water body, watercourse or wetland E10.6.1 (P1)

The application and associated plans and documents will be available for inspection during normal office hours for a period of 14 days from the date of this notice at the Council Office, Saunders Street, Wynyard or can be viewed on the Council website www.warwyn.tas.gov.au.

Any person who wishes to make representations in accordance with the *Land Use Planning and Approvals Act 1993*, must do so during the 14-day period.

Representations in writing will be received by the General Manager, PO Box 168, Wynyard, 7325, or email council@warwyn.tas.gov.au by **Wednesday 12 October 2022**.

Dated Wednesday 28 September 2022.

A handwritten signature in black ink, appearing to read "Shane", is written over a faint circular stamp.

Shane Crawford
GENERAL MANAGER



SEARCH OF TORRENS TITLE

VOLUME	FOLIO
105238	1
EDITION	DATE OF ISSUE
6	05-Jun-2006

SEARCH DATE : 30-Mar-2021

SEARCH TIME : 01.03 PM

DESCRIPTION OF LAND

Parish of ELLIOTT, Land District of WELLINGTON
Lot 1 on Diagram 105238
Derivation : Whole of Lot 28526 Gtd to Mavis Victoria
McCullagh and part of Lot 25051 Gtd to William Clark
Prior CT 4395/63

SCHEDULE 1

LESLIE ANN HODGE and GRAHAM MICHAEL HODGE

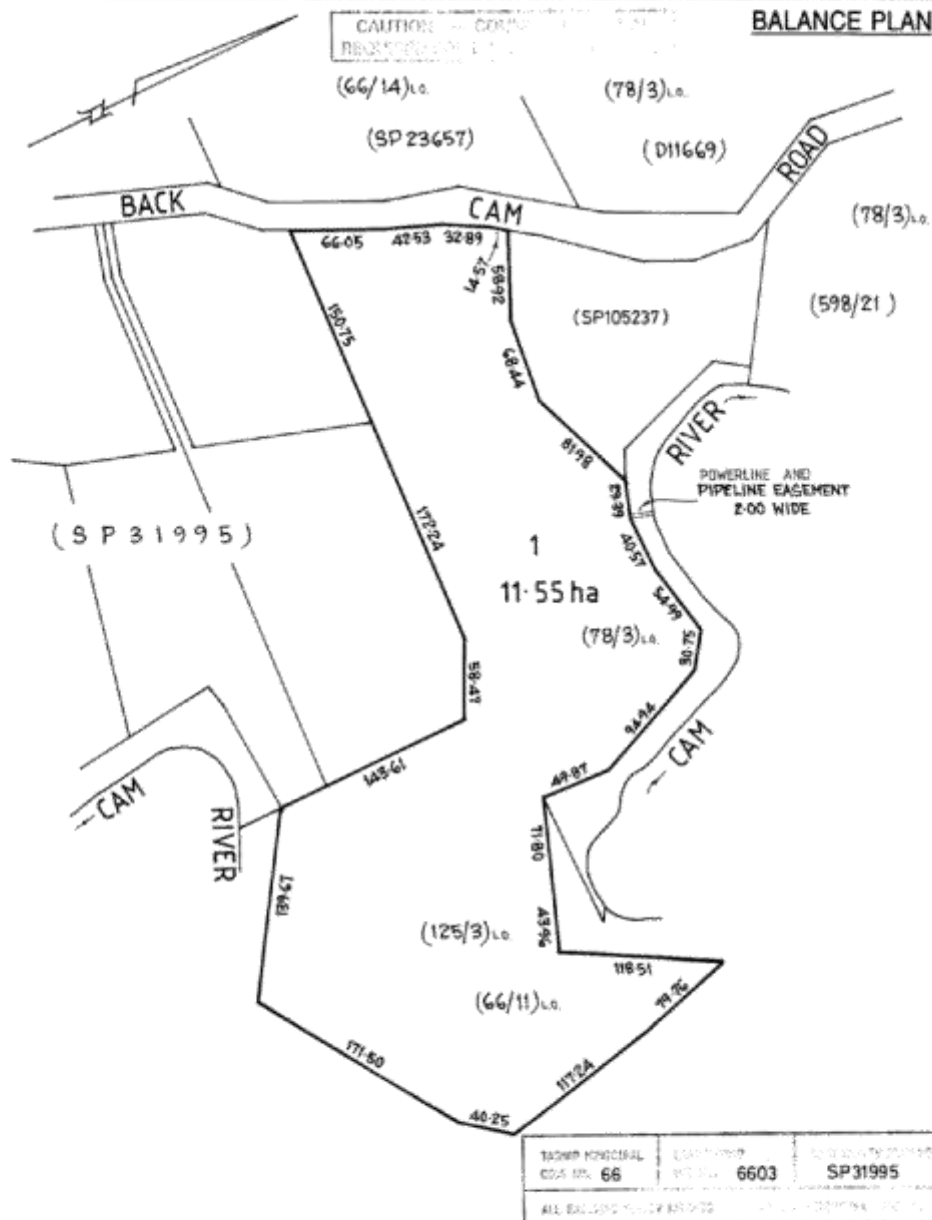
SCHEDULE 2

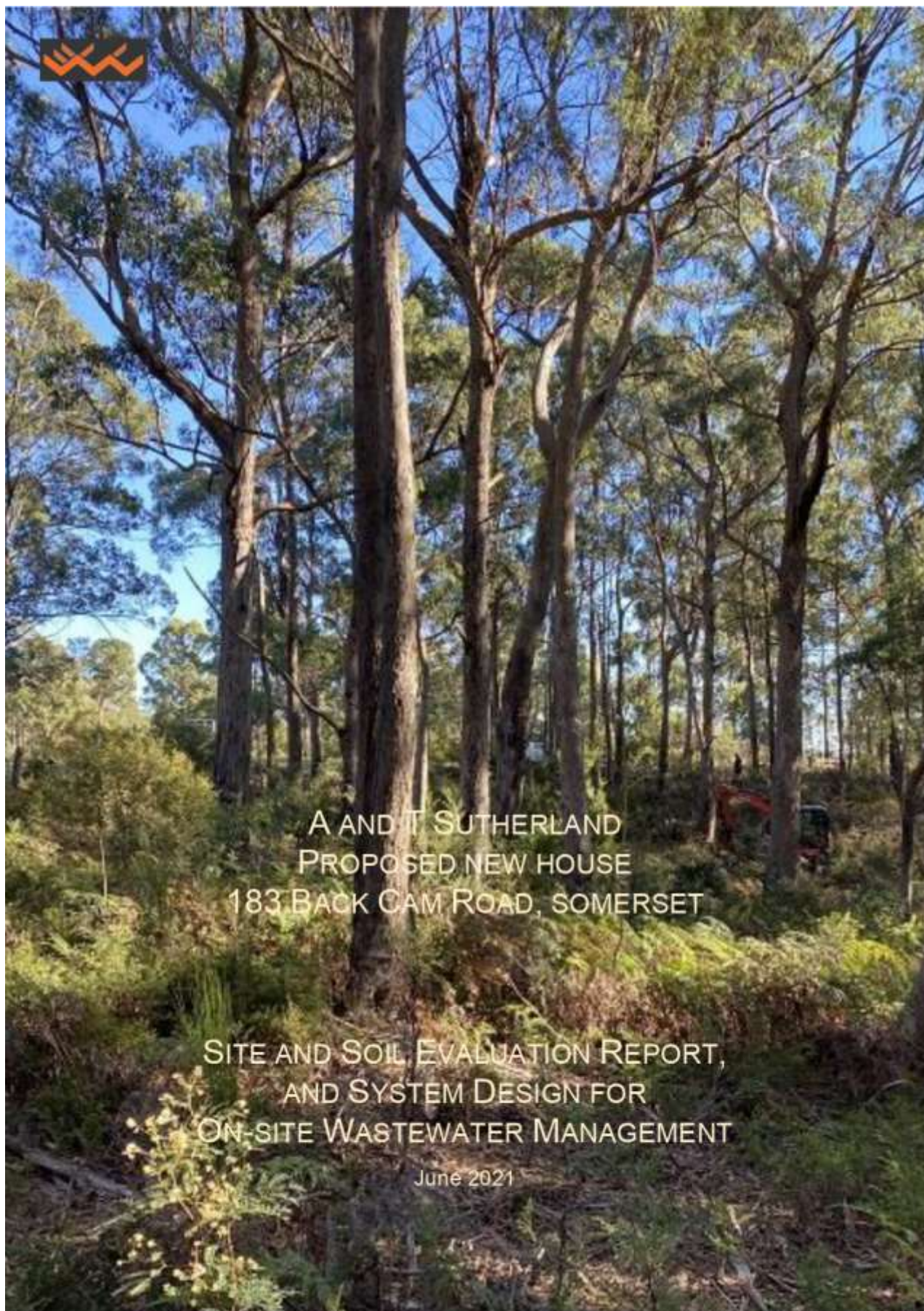
Reservations and conditions in the Crown Grant if any
SP105237 BENEFITTING EASEMENT: Pipeline and Powerline Right
over Pipeline and Powerline Easement 2.00 wide on
Diagram No 105238
SP31995 FENCING COVENANT in Schedule of Easements

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

Owner: Leslie Anne Hodge & Graham Michael Hodge	PLAN OF TITLE of land situated in the	REGISTERED NUMBER D 105238
Title Reference: Q.T. 4395-63	LAND DISTRICT OF WELLINGTON PARISH OF ELLIOTT	Approved: 4 JUN 2021
Grantee: Part of Lot 25051, 175Ac. William Clark - pur. Whole of Lot 28526, 13°2'13" gld. to Mavis Victoria McCullagh	COMPILED FROM: SP31995 COMPILED BY: Peacock, Darcey & Anderson P/L SCALE 1: 3000 MEASUREMENTS IN METRES	Recorder of Titles <i>Michael...</i>





A AND T SUTHERLAND
PROPOSED NEW HOUSE
183 BACK CAM ROAD, SOMERSET

SITE AND SOIL EVALUATION REPORT,
AND SYSTEM DESIGN FOR
ON-SITE WASTEWATER MANAGEMENT

June 2021



Cover photo

Looking northwest towards the proposed house site. The excavator is digging test pit C.
Photo: Bill Cromer, 29 May 2021

Refer to this report as

Cromer, W. C. (2021). *Site and Soil Evaluation Report, and System Design for On-site Wastewater Management, proposed new house at 183 Back Cam Road, Somerset*. Unpublished report for A and T Sutherland by William C. Cromer Pty. Ltd., 17 June 2021.

Important

It is the responsibility of the client to contact the designer at least one week before installation of the wastewater system so that (if required) designer inspection of it can be arranged.

Important Notes

This report has been prepared in general accordance (where applicable) with:

- AS/NZS1547:2012 *On-site domestic wastewater management*,
- The Tasmanian *On-site Wastewater Management Code* (E23)
- The Director's *Guidelines for On-site Wastewater Management Systems* (November 2017) and
- Trench®3.0 (William C Cromer Pty Ltd)

New geotechnical information is contained in this report. The information may be useful to regulators and other geotechnical practitioners. Dissemination of such knowledge ought to be encouraged by practitioners and regulators.

Permission is hereby given by William C. Cromer as author for an electronic copy of this report to be distributed to, or made available to, interested parties, but only if it is distributed or made available in full. No responsibility is otherwise taken for its contents.

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The local planning or building authority is encouraged to make this report (or a reference to it) available on line.

William C Cromer Pty Ltd may submit hard or electronic copies of this report to Mineral Resources Tasmania to enhance the geotechnical database of Tasmania.

Important Disclaimer

This document has been prepared for use by the client named above by William C Cromer Pty Ltd (WCCPL) and has been compiled using the firm's expert knowledge, due care and professional expertise. WCCPL does not guarantee that the publication is without flaw of any kind or is wholly appropriate for every purpose for which it may be used.

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Warning

**This report must be viewed in colour on a computer monitor or other electronic device.
Printed copies of this report must be in colour, and in full.
No responsibility is otherwise taken for its contents.**





SUMMARY

A new four-bedroom house is proposed on about 1ha of land at 183 Back Cam Road, Somerset.

The owners propose a composting toilet and separate greywater management.

The house will have a rainwater tank supply, and mains electricity.

The greywater volume is assumed to be 540L/day.

Secondary-treated greywater from a constructed wetlands (reed bed) will be disposed of via gravity to mulch-covered drip irrigation at a Design Irrigation Rate of 2L/day/m² onto Category 6 soils over a wetted area (the Land application area, LAA) of at least 270m².

The LAA or LAAs are located and designed so that they constitute Acceptable Solution A1 of Section 1, and Acceptable Solutions A1 – A5 and Performance Criterion P6 in Section 3.1 of the Director's *Guidelines for On-site Wastewater Management Systems*.





BACKGROUND

Purpose of this report

This site and soil evaluation report (SSER), and wastewater design based on the SSER, for wastewater management for a proposed four-bedroom house at 183 Back Cam Road Somerset (Attachment 1) was instigated by the owners A and T Sutherland.

This report is intended to support an application to Waratah-Wynyard Council for a Plumbing Permit for the new on-site wastewater system (OSWM).

PART A SITE AND SOIL EVALUATION

Location, size, zoning, topography, and drainage

The proposed house site will be located on 1.042ha on land, (Lot 2) gently sloping to the northeast at angles ranging from 5° – 10° (Attachments 1 and 2).

The property is zoned *Rural Living* in the Waratah-Wynyard Interim Planning Scheme 2013 (www.thelist.tas.gov.au).

Vegetation

Eucalypt forest

Water and power supply

Rain water tanks. Reticulated mains electricity available.

Assumed daily wastewater

House = 4 bedrooms (Attachment 3) = 6 people. Rainwater tanks = 90L/day/person for greywater. Total daily greywater volume = 540L (includes any excess liquids for the composting toilet – preferred by the owners).

Interpretation of site geology and soils

Published geology of the property

The published geology of the district (Attachment 1) shows the property and environs is underlain by Precambrian-age sedimentary rocks – including sandstone, siltstone, and mudstone. Extremely weathered siltstone (ie silt) was exposed in all four excavator test pits (Table 1).

Soil

Texture and thickness

Table 1 summarises the soil profile in test pits A – D.

The soil in all four test pits is a duplex (two-layered) profile, comprising a topsoil of sandy silt averaging 0.3m thick (Layers 1 and 2), over a silty clayey subsoil 0.4 – 0.7m thick (Layer 3).

Soil dispersion

The soil profile is not expected to be dispersive.

Fill

No fill was observed at and near the house site.





Table 1. Summary of test pits

Client A and T Sutherland		Test pit		A	B	C	D
Location	183 Back Cam Road	Depth dug (m)		1.1	1.4	1.2	1.4
	Somerset	Easting (GDA94)		401475	401489	401485	401492
Date dug	29-May-21	Northing (GDA94)		5453606	5453660	5453652	5453670
		Water inflow (depths in m)		None	None	None	None
		Standing water level (m)		N/A	N/A	N/A	N/A

No.	Layer	Details	USCS	Interp.	Figures are depths to top and bottom of layer, in metres			
1	Sandy SILT	Grey; medium dense; D-M	SP	A1 soil horizon (topsoil)	0 to 0.15	0 to 0.1	0 to 0.1	0 to 0.1
2	Sandy SILT	Light grey; weakly cemented; some quartz gravel; D-M	SP	A2 soil horizon (topsoil)	0.15 to 0.3	0.1 to 0.3	0.1 to 0.3	0.1 to 0.3
3	Silty CLAY	Grades to clayey silt towards base; light orange and light grey; some siltstone gravel; low to moderate plasticity; M<PL; VSt-H but fractured and friable	CL, CH	B soil horizon (subsoil)	0.3 to 0.75	0.3 to 0.6 (US0 0.6 to 1.1)	0.3 to 0.6	0.3 to 1.0
4	SILT	Light grey and yellow; some sand and clay; low plasticity; D; Fb-H	SM	Extremely weathered bedrock	0.75 to 1.1 EAR	0.8 to 1.4 EAR	0.8 to 1.2 EAR	1.0 to 1.4 EAR

Notes and abbreviations

USCS = Unified Soil Classification System
 Grey cells indicate a missing layer or layers in a test pit
 Easting and Northing coordinates from Google Earth and hand held GPS. Datum is GDA94.
 Excavability: Equipment = 5.4 tonne Kubota excavator; 0.45m GP bucket; 4 teeth; Operator: Bruce Chamley
 EAR = end as required; NR = no refusal; CR = close to refusal; R = refusal.
 Weathering: For rock only. F = fresh; SW = slightly weathered; MW = moderately weathered; HW = highly weathered.
 EW = extremely weathered (ie soil properties; material can be remolded in the hand, with or without water)
 Moisture: D = dry; M = moist (M<=PL = moisture less than, equal to or greater than Plastic Limit); W = wet.
 Consistency: Fb = Friable (crumbles to powder when scraped with thumbnail)
 S = Soft (Easily penetrated by fist; 25 – 50kPa)
 F = Firm (Easily penetrated by thumb; 50 – 100kPa)
 St = Stiff (Indented with thumb; penetrated with difficulty; 100 – 200kPa)
 VSt = Very stiff (Easily indented with thumbnail; 200 – 400kPa)
 H = Hard (Indented by thumbnail with difficulty; >400kPa)
 Rel density: VL = Very loose (ravelling)
 L = Loose (easy shovelling)
 MD = Medium dense (hard shovelling)
 D = Dense (picking)
 VD = Very dense (hard picking)





Groundwater

No shallow seepage water was observed in test pits, although it may temporarily occur in the topsoil during wetter periods.

Permanent groundwater is present in the bedrock, but at depths which will not affect the proposed building.

Slope stability

Published evidence of slope instability

Landslide inventory

The Mineral Resources Tasmania landslide database records no instances of slope instability within about 2km of the property.

Landslide Hazard Band (Area)

The site and environs are not included in any landslide hazard bands (Attachment 1).

Site observations of slope instability

There is no evidence of slope instability at and near the proposed house site and none is expected because of the gentle slope angles and thin soils over stable siltstone bedrock.

The risk of slope instability is very low and acceptable.

Soil selected for wastewater disposal

Existing soil profile, which is assessed as Category 6.

Proposed wastewater management system

Method

The owners have indicated a preference for a composting toilet and greywater treatment system.

The composting toilet will be an [Oz-e-Pod](#).

The secondary greywater treatment system will comprise:

- two grease traps for kitchen greywater,
- an in-line bristle filter for all greywater,
- a constructed wetlands (reed bed) with 7-day retention, and
- gravity discharge to mulch-covered drip irrigation beds.

Design Loading Rate (DLR)

Adopted as 2mm/day (ie 2L/m²/day)

Minimum wetted area required for wastewater disposal

The wetted area required for mulch-covered drip irrigation is the daily greywater volume divided by the DLR. This is 540/day divided by 2L/m²/day = 270m², in accordance with Section L4 of AS/NZS1547:2012.





PART B SYSTEM DESIGN AND REGULATORY COMPLIANCE

Regulatory requirements for wastewater management

Wastewater management on this property must comply with:

- AS/NZS1547:2012 *Onsite Domestic Wastewater Management*, and
- in the absence of a wastewater code in the Waratah-Wynyard Interim Planning Scheme (2013), the Tasmanian Director of Building Control's *Guidelines for On-site Wastewater Management Systems* (Nov 2017; the Guidelines)

Section 1 of Guidelines: Area required for On-site wastewater management

The land application area (LAA) for wastewater disposal in Attachment 4 is sized in accordance with AS/NZS1547 which complies with Section 1 referring to Table 3 in the Guidelines (reproduced here as Table 1).

Table 1 Minimum land application areas to be set aside, by soil category and bedrooms

Table 3. MINIMUM LAND APPLICATION AREA

Soil category for top 1.5m of soil profile as listed in AS/NZS1547 (refer Notes below)	Area required per bedroom for primary treated effluent (m ²) reduce by 50% if secondary treated effluent discharged to a trench, bed or mound	Area required per bedroom for irrigated secondary treated effluent (m ² ; slope <10%, 10-20%, >20%)
1 (Sand)	50	50, 60, 100
2 (Sandy loam)	80	55, 66, 110
3 (Loam)	90	70, 84, 140
4 (Clay loam)	120	80, 96, 160
5 (Light clay)	180	100, 120, 200
6 (Clay)	180	130, 156, 260

Notes to Table 3

- (i) Where the soil in the upper 1.5m of the soil profile comprises two or more soil categories, the required area must be calculated on the basis of the requirements for the predominant soil category.
- (ii) If dispersive soils or a limiting layer are encountered within the upper 1m of the soil profile, then the area required must be calculated on the basis of the requirements for Category 6 soil.
- (iii) Minimum land application area for primary treated wastewater including land that is reserved for future wastewater application.
- (iv) Slope means the average gradient of the land over the land application area.

Section 3 of the Guidelines: Horizontal and vertical separation distances for wastewater disposal areas

Section 3 of the Guidelines sets out Acceptable Solutions (A) and Performance Criteria (P) for horizontal and vertical setback distances for disposal systems in LAAs. These are summarised in Table 2.

The LAA or LAAs are located and designed so that they constitute Acceptable Solution A1 of Section 1, and Acceptable Solutions A1 – A5 and Performance Criterion P6 in Section 3 of the Guidelines.





Table 2 System compliance of proposed conventional bed with Section 3.1 of the Guidelines

Separation distances to a disposal area:	Compliance of this site	Reasons for compliance	References, or relevant section of this report
Horizontal distance from a building	Complies with A1(i)	LAA no less than 3m from upslope building, no downslope buildings	Attachment 4
Horizontal distance from downslope surface water	Complies with A2(a)	Downslope surface water no less than 100m	Attachment 1
Horizontal distance from a property boundary (measured at right angles to contours)	Complies with A3(b)(iii)	10 degree slope; secondary treatment; OWMS>9m from downslope boundary	Attachment 2
Horizontal distance from a downslope bore, well or similar water supply	Complies with A4	No recorded operating water bore within 50m or so of site	See the Groundwater Information Access Portal (http://dipwe.tas.gov.au/water/groundwater/groundwater-information-access-portal)
Vertical distance from groundwater	Complies with A5	No water table detected in test pits; none expected in surface 2m	Section A of report
Vertical distance from a limiting layer	Complies with P6	Consistent with AS/NZS1547 Appendix R.	Part A of report





PART C GENERAL NOTES

Applying for a Plumbing Permit (PP)

This document is intended to support, not replace, an application to local Council for a Plumbing Permit.

This report sizes one or more Land Application Areas (LAAs) within which wastewater must be disposed, but the proposed location of the LAA may be nominal. There may be flexibility in its location provided setback distances are satisfied, and the final location would be specified when applying for a Plumbing Permit.

Detailed design notes for some wastewater systems, and related wastewater information, are [available on my website](#).

Appointment of designer and inspection arrangements

If required, William C Cromer Pty Ltd accepts the role of Designer for the design(s) suggested in this report. A **Form 35** is included with this document.

Depending on local government policy, the designer is required to make as many site inspections as is necessary to be able to certify to the client and the local Council that:

- the installed system conforms with the approved design, and
- the system, as installed, conforms with the currently-adopted version of AS/NZS1547.

Usually, certification is required before the dwelling can be occupied and the wastewater disposal system used.

It is the responsibility of the client or the client's agent to contact the designer before construction starts on the wastewater disposal system, in order to establish the stages of construction required to be inspected by the designer.

System, design, performance and maintenance

Depending on the type of wastewater disposal system installed, owners may be required by Council to satisfy all or some of the following, which would usually form a set of conditions of approval for a plumbing permit.

1. The system shall comply with the currently-adopted version of AS/NZS1547.
2. All tank and system openings shall be accessible at finished surface level for inspection and servicing, and adequately sealed to prevent stormwater infiltration.
3. Where pumps are fitted, and power is required for system operation, a hard-wired audible and visible (indicator light) alarm shall be installed to warn of pump failure, blower failure and power failure.
4. Where an existing disposal system is being added to or altered and the existing septic tank is going to be used, a filter will need to be retro-fitted to the existing septic tank. Owners will need to advise their plumber to ensure that this matter is taken into consideration when purchasing a new septic tank or where the filter is to be retro-fitted.
5. The minimum wetted area requirement for wastewater disposal must be installed and maintained in the approved locations as per the design by the Designer and lodged with the application for a Special Plumbing Permit.
6. All wastewater disposal (including irrigation) areas shall be completed, approved and formally signed off by the Designer as complying with AS/NZS1547 prior to commissioning of





the system. Certification, in a format approved by Council; shall include a site plan to scale showing the wastewater disposal locations and areas property boundaries, infrastructure, GPS grid coordinates.

7. All pipes, pipe sleeves, identification tapes, and outlets on an irrigation system shall be coloured lilac (P23), in accordance with AS2700.

8. If one or more wastewater irrigation systems are proposed, they shall be constructed and installed in accordance with approved plans accompanying the Special Plumbing Permit, and the following:

Spray Irrigation Systems:

- The sprinklers used for distributing the wastewater must of a type that minimise formation of small droplets and aerosols. Impact and pencil type sprays shall not be used.
- A flush valve is to be installed on each irrigation area so that the lines can be flushed. The discharge from the flush valve must discharge either onto the irrigation area or piped back to a suitable chamber of the treatment system, having regard to whether the wastewater is chlorinated or not, so that the efficacy of the treatment plant is not compromised by the introduction of the flush water.
- Flush valves are to be installed in valve boxes to enable inspection and service.

Drip and sub-surface Irrigation Systems:

- Only pressure compensated drip line shall be used.
- Vacuum breaker valves are to be provided at the high point(s) of all irrigation fields. Such valves are to be installed in valve boxes to enable inspection and service.
- A flush valve is to be installed on the low point of each irrigation field with piping discharging the flush water to a suitable chamber of the treatment system, having regard to whether the wastewater is chlorinated or not, so that the efficacy of the treatment plant is not compromised by the introduction of the flush water. Flush valves are to be installed in valve boxes to enable inspection and service.

9. Unless specifically advised by the Designer as unnecessary or inappropriate, an effective surface water diversion drain or mound shall be provided and maintained on the high side of wastewater disposal (including irrigation) areas. Note that all concentrated stormwater must be retained on the property.

10. Weed matting, plastic or other materials that impede water penetration into the soil shall not be used between the irrigation system and the soil surface.

11. All wastewater irrigation areas shall be maintained in good order at all times. Such maintenance includes but may not be restricted to weeding, mowing, and replacement of mulch or plants.

12. Council shall be provided with an amended plan if the location of the irrigation area is altered or changed from the "as installed" plan. The owner shall ensure that any altered wastewater disposal (including irrigation) areas meet minimum setback distances from boundaries and buildings and any other conditions contained within this permit.

13. The wastewater treatment system shall be regularly maintained in accordance with the conditions of accreditation issued under the Tasmanian Plumbing Code.

14. Any septic tank associated with the disposal system shall be desludged at least once every five years.

15. Where required, the owner shall enter into and maintain an on-going service maintenance agreement with a person with appropriate qualifications and experience to maintain the wastewater disposal system in accordance with the Plumbing Regulations 2004





and the Tasmanian Plumbing Code. A copy of the signed agreement shall be submitted to Council before commissioning of the system.

16. Where required, effluent quality for land application shall meet the criteria specified in the installed system's certificate of accreditation or, if not specified, as follows (from AS/NZS1547:

5-day Biological Oxygen Demand (BOD5)	20mg/L
Suspended Solids (SS)	30mg/L
Thermotolerant coliforms	10 per 100mL
Free chlorine residual	0.5mg/L

17. Only when these tests indicate compliance will the unit be regarded as being commissioned. A NATA approved laboratory should conduct such tests. Testing shall be conducted as follows:

- a) Commissioning phase: Mandatory testing after three months from the final installation inspection (to coincide with the normal on-going scheduled maintenance visits) but fortnightly in the event of failure to comply
- b) On going operational phase: Mandatory testing for a free chlorine residue is required every three months. Remedial works should be undertaken when the minimum free chlorine residual is not met. Random surveillance for BOD5, SS and thermotolerant coliforms shall be done at no less than once each 4 years. An authorised person may require sampling for BOD5, SS and thermotolerant coliforms or to undertake other chemical analyses to help identify operational problems.

18. Where required, monitoring details for individual on-site waste water management systems are to be recorded on a standardised form and lodged with the Council each quarter.

19. A final inspection of all installations may be conducted by a Council Environmental Health Officer following receipt of the written certification from the system designer. Plumbers and owners should be made aware that a minimum number of working days' notice is required for such inspections and the building will need to be open for inspection as required.

W. C. Cromer
Principal

This report is and must remain accompanied by the following Attachments

- Attachment 1. Location, cadastre, aerial imagery, published geology, hillshading and landslide hazard bands (4 pages)
- Attachment 2. Proposed house, test pits and a suggested land application area (LAA) (1 page)
- Attachment 3. Floor plans of proposed house (1 page)
- Attachment 4. Wastewater design for house (7 pages)
- Attachment 5. Loading Certificate (2 pages)
- Attachment 6. Risk assessment (2 pages)
- Attachment 7. Form 35 for this project (3 pages)
- Attachment 8. Documents required when applying for a plumbing permit for an on-site wastewater management system (2 pages)





Attachment 1

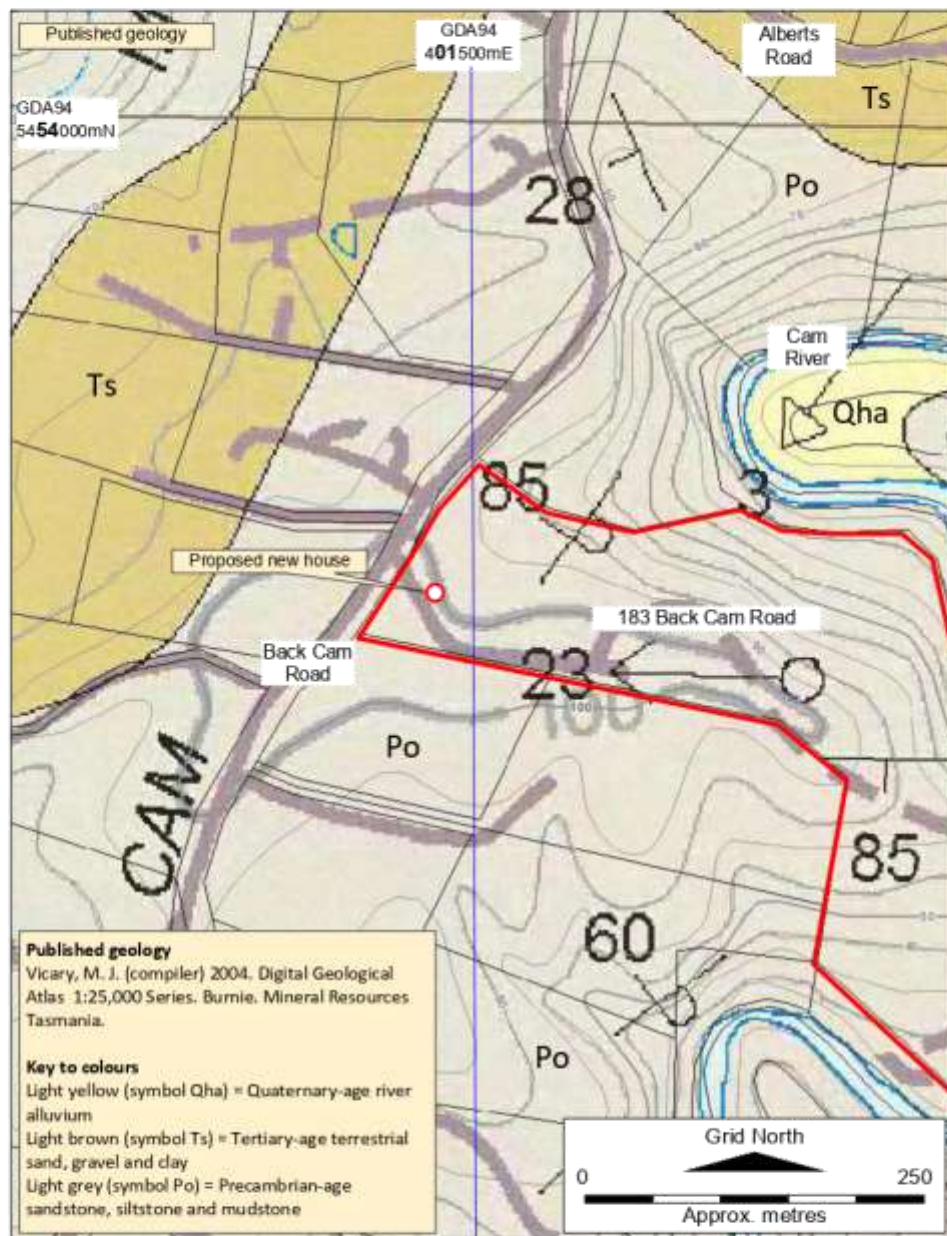
(4 pages)

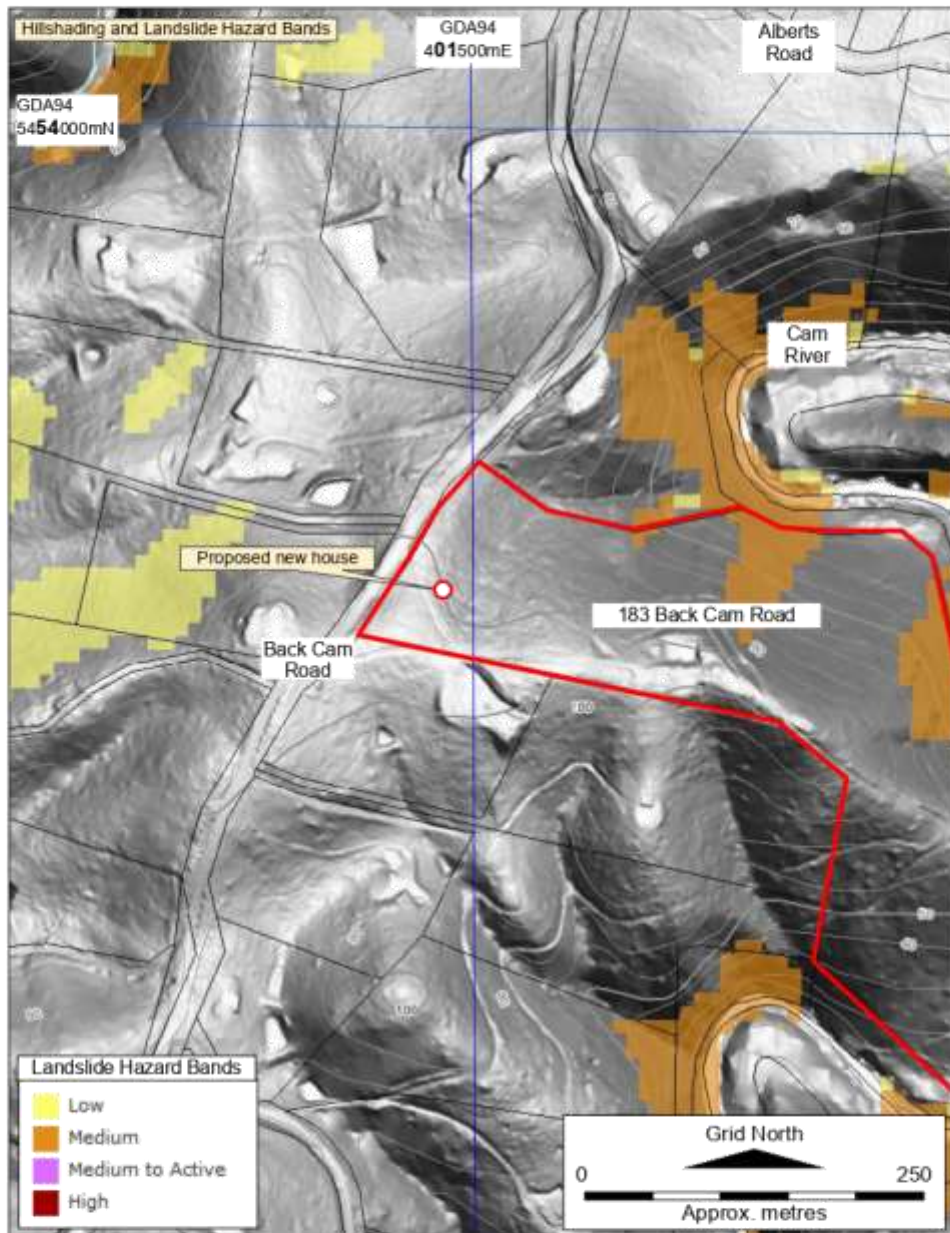
**Location, cadastre, aerial imagery,
published geology, hillshading and landslide hazard bands**

Source: www.theist.tas.gov.au; and Mineral Resources Tasmania









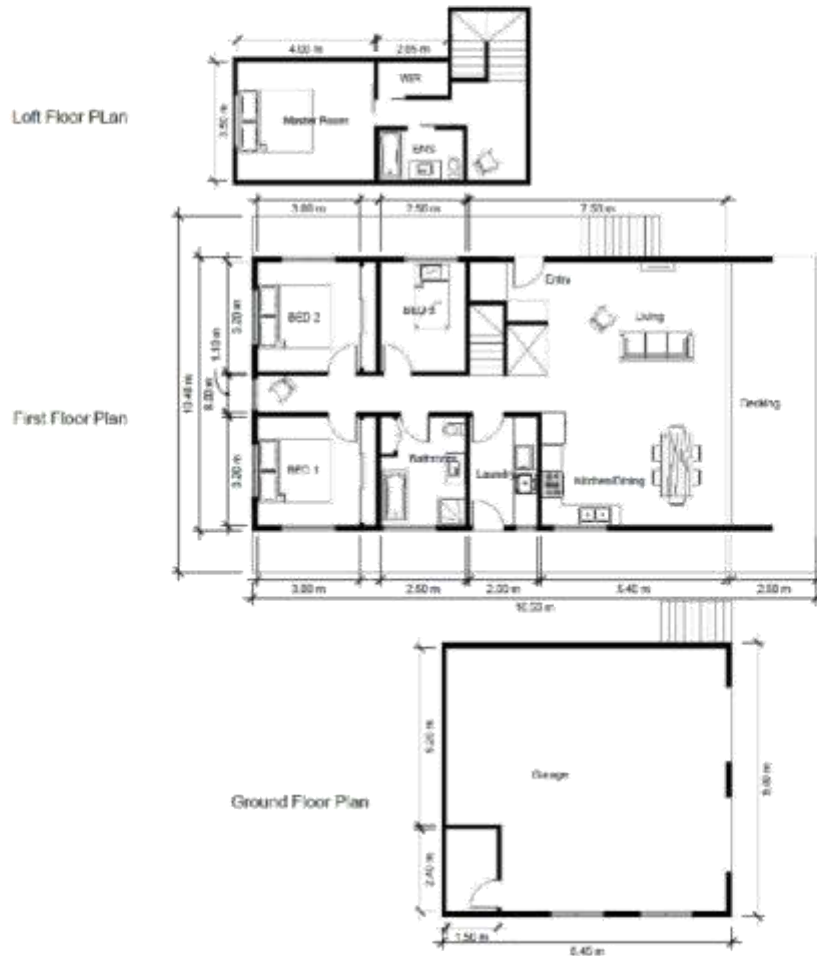


Attachment 2
(1 page)
**Proposed house, test pits and
a suggested land application area (LAA)**
Source: www.thelist.tas.gov.au



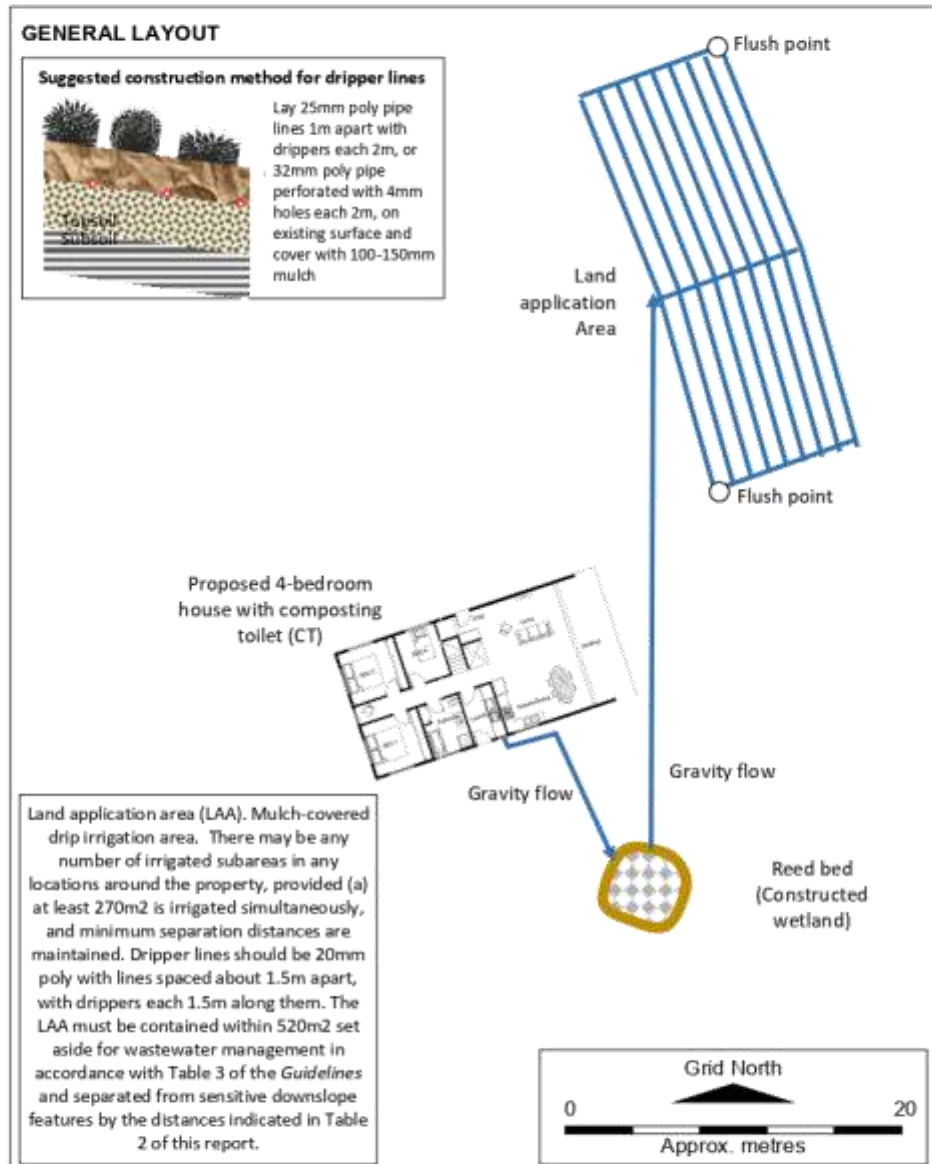


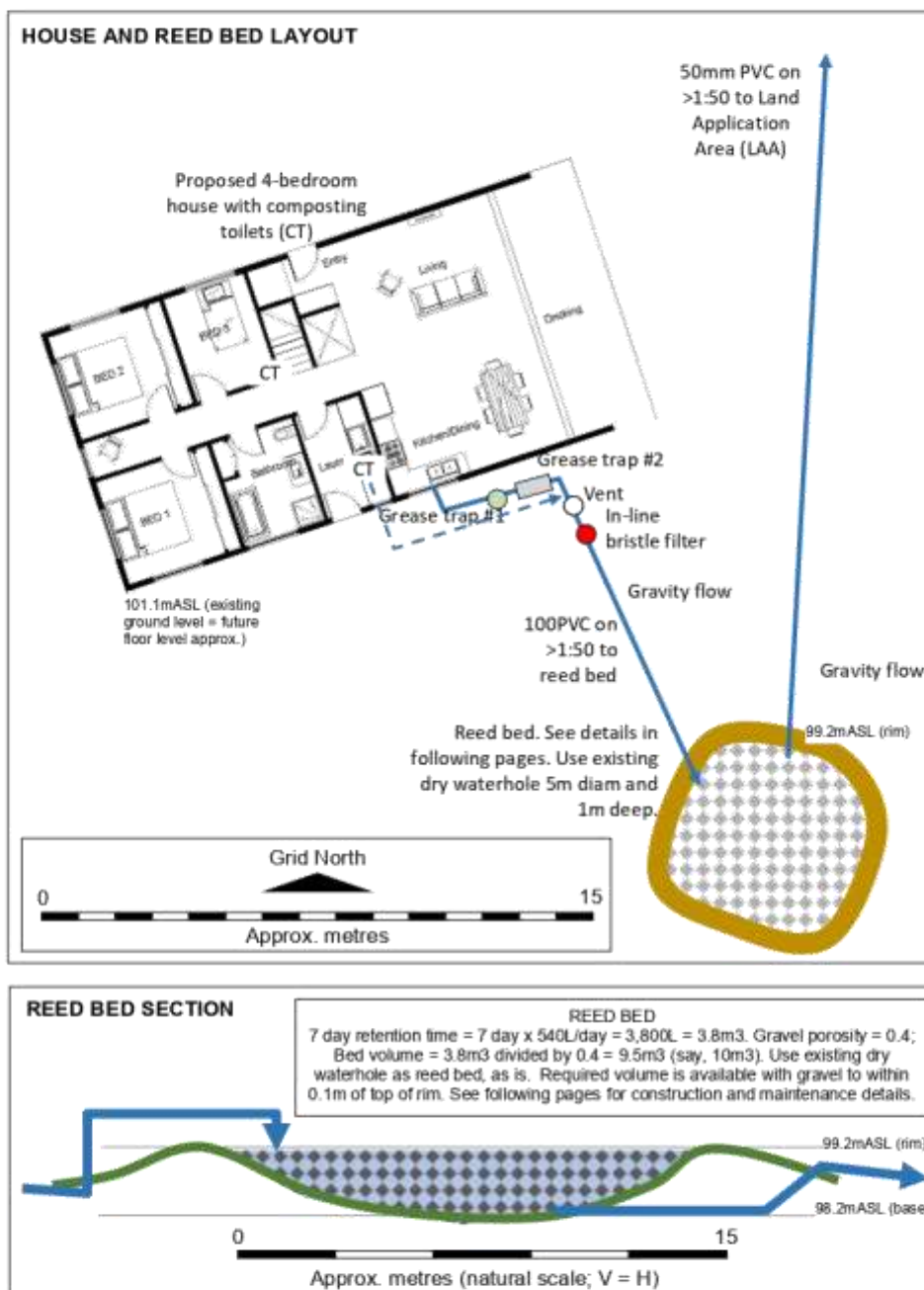
Attachment 3
(1 page)
Floor plans of proposed house
Source: *Enviroplan*, 29 March 2021

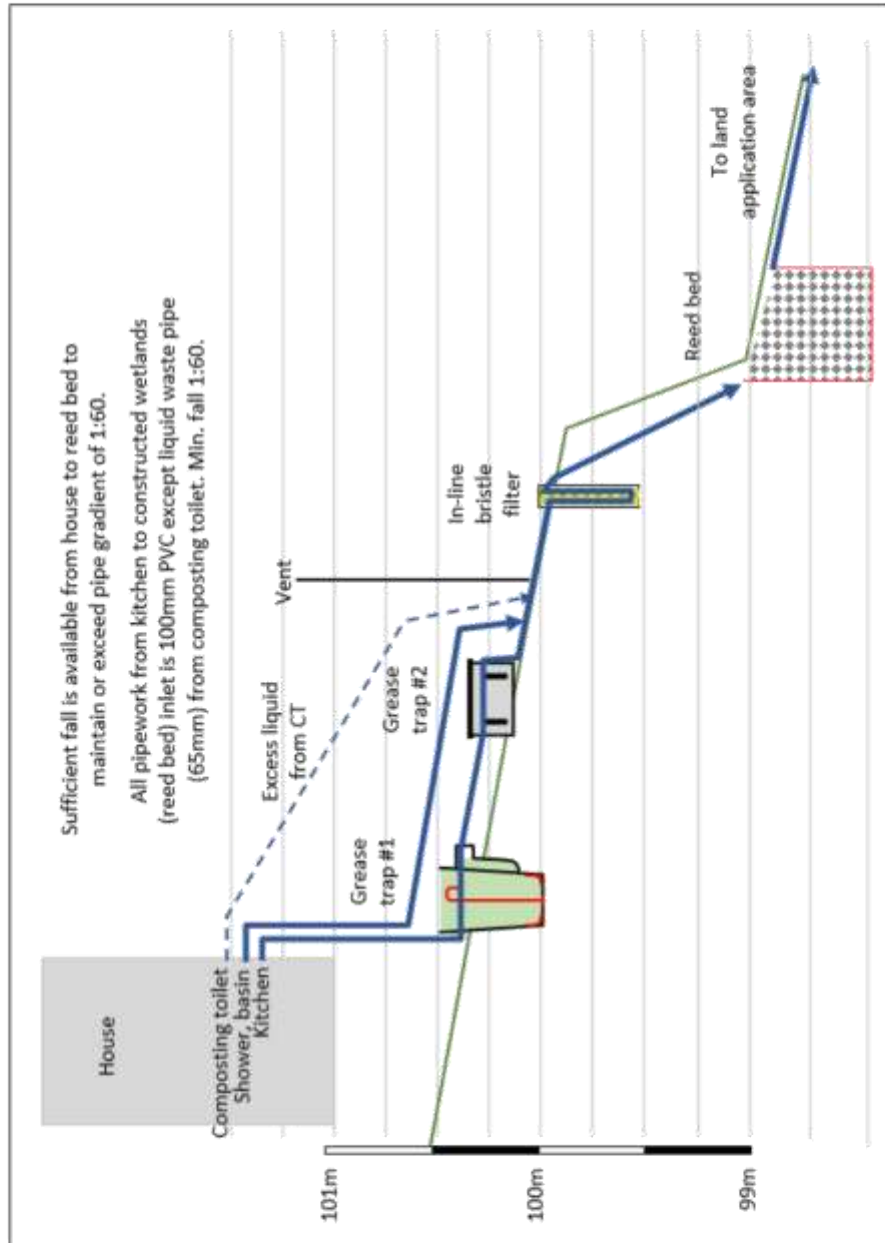




Attachment 4
(7 pages)
Wastewater design for house









COMPONENT DETAILS

COMPOSTING TOILET

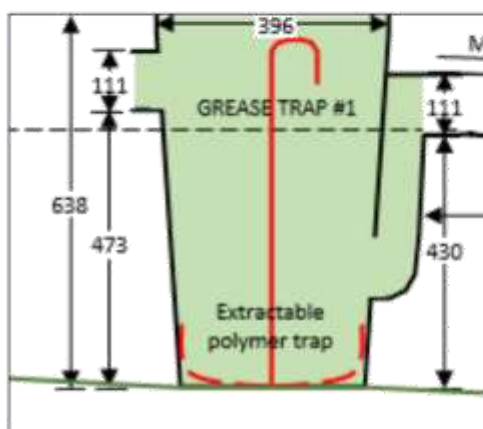


Operate in accordance
with manufacturer's
instructions.

Oz-e-Pod Information

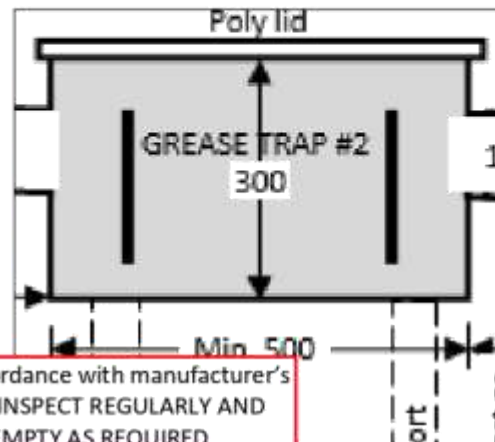
- 1 person full-time use / 2-3 people part-time use - can be increased by adding optional extra compost bins
- Elegant and sturdy construction
- Easy to clean ceramic - like finish
- Chamber screen that hides the compost from view if not in use
- Reduces waste by over 90%, leaving behind nutrient rich, hygienically safe compost for disposal
- Silent 12V fan and convenient drain system for any excess liquid
- Easily connects to mains power or optional solar pack (see below for our solar power kit)
- Two batch composting system allows for maximum capacity - expandable with extra containers
- Designed for easy installation using common handyman tools
- Perfect for tiny homes and slab buildings, as no underfloor space is required.

GREASE TRAP #1

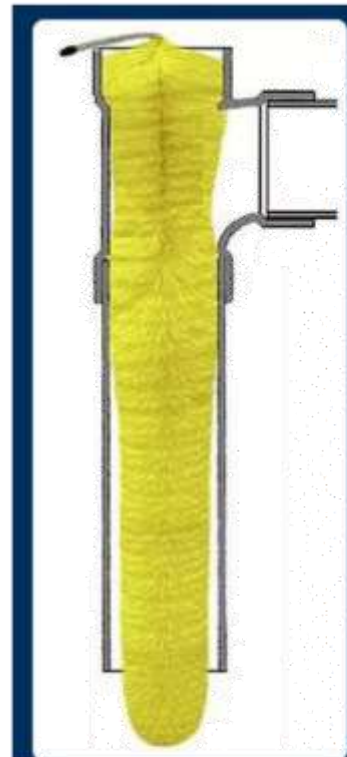


Operate in accordance with manufacturer's
instructions. INSPECT REGULARLY AND
CLEAN/EMPTY AS REQUIRED.





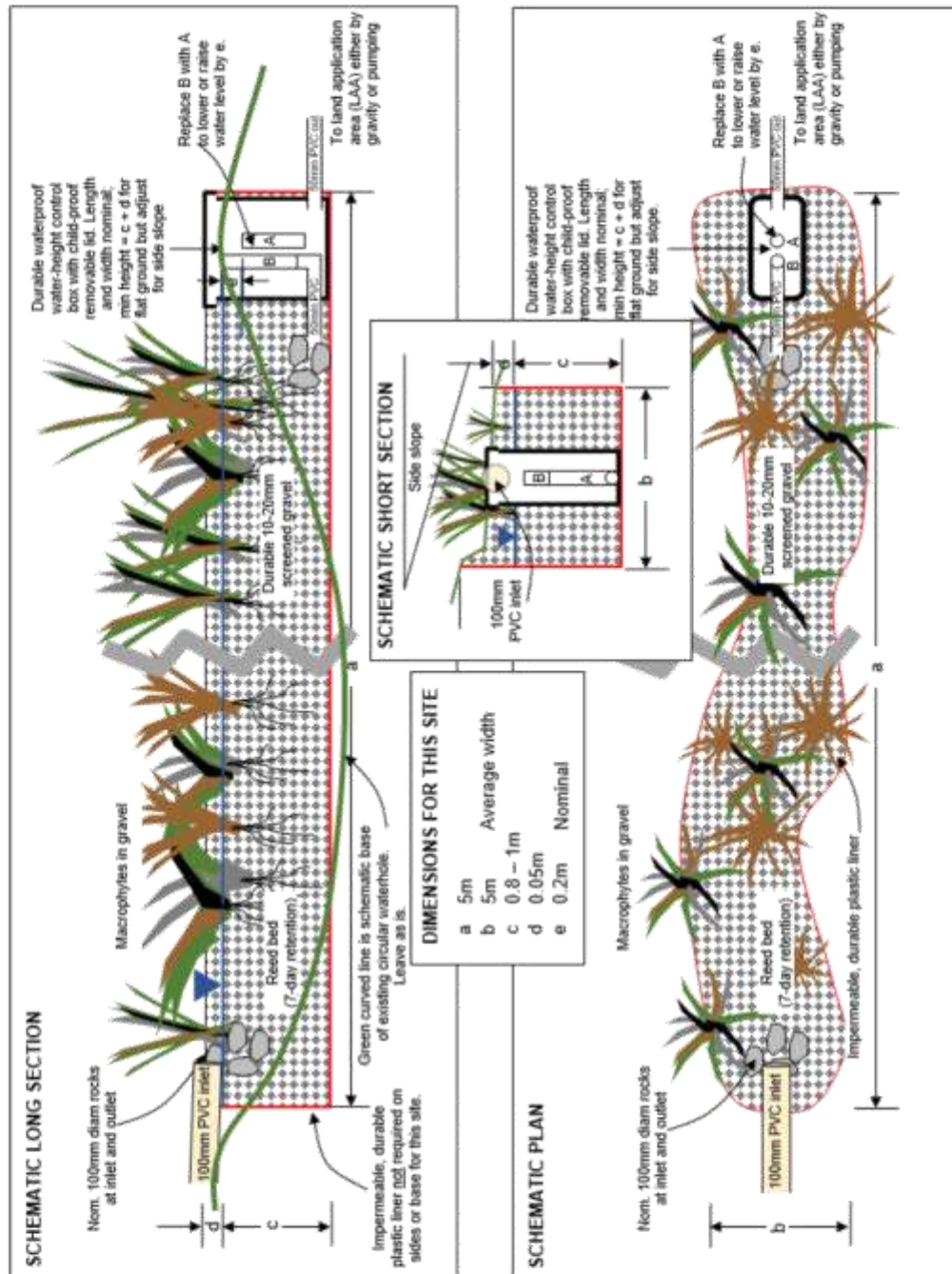
Operate in accordance with manufacturer's instructions. INSPECT REGULARLY AND CLEAN/EMPTY AS REQUIRED.



Operate in accordance with manufacturer's instructions. INSPECT REGULARLY AND CLEAN/EMPTY/REPLACE AS REQUIRED.

- Easy installation just about anywhere, even square baffles
- Easy and economical to maintain, even in hard to reach places
- Tank pumping is not required when using a maintenance sleeve
- Excellent filtration for solids, including toilet paper, hair, lint, etc.
- Bristles self lock into place to prevent filter float up
- Longer filter life because debris is sorted by size
- Allows biological maturing necessary in wastewater treatment systems
- Durable enough to be washed out, economical enough to be disposable
- For use in residential, commercial and other applications
- Available in 4", 6", 7", or 8" diameters





Operate in accordance with maintenance instructions.





MAINTENANCE OF REED BED

Wear gloves when doing maintenance, and avoid contact with effluent

!Maintain upslope earthen berm in good condition

Check for blockages in inlet/outlet pipes and clear when required

Check that macrophyte roots are not too close to inlet and outlet

Ensure gravel surface is not disturbed, and rake level if necessary

Alter water height: lower water level in summer for two weeks or so over the course of a few days, to allow drying out of upper levels of gravel/organic matter

Harvest dead stems, etc of macrophytes whenever necessary

Reference for reed bed design, installation and maintenance:

The Use of Reed Beds for the Treatment of Sewage & Wastewater from Domestic Households. Lismore City Council (May 2005)





Emergent macrophytes and other water-loving species suitable for Tasmanian constructed wetlands. The list is not exhaustive.

Scientific name	Common name	Type	Form	Height (m)	Description	Planting density (plants/m ²)	Requirements	Comments
<i>Eleocharis acuta</i>	Common Spike-rush	Shallow marsh	Emergent macrophytes	0.3-0.9	Perennial aquatic herb; slender rhizomes	6-10	Heavy damp soils to 0.2m depth	High surface area; may spread rapidly in shallow water
<i>Eleocharis parviflora</i>	Small Spike-rush	Littoral	Ground cover	0.002-0.25	Tiny perennial herb with thick woody stem	6	Moist to wet soils	Readily grown; easily controlled
<i>Eleocharis sphacelata</i>	Tall Spike-rush	Deep marsh	Emergent macrophytes	0.5-2	Robust perennial herb with thick woody rhizome; clumps to big dense stands	6	Aquatic; to depths of 2m; can tolerate drying	Plant solo; slow establishment; rhizomes can restrict growth of other plants
<i>Dicella tasmanica</i>	Tasman Flex Lily	Littoral	Emergent macrophytes	0.6-1.5	Robust tufted perennial; may spread vigorously with strong rhizomes	6	Moist soils; prefers shade	Tolerant once established; adaptable (including snow cover); aesthetic
<i>Cyperus gunnii</i>	Floated Flat Sedge	Ephemeral marsh	Emergent macrophytes	0.6-1	Densely tufted perennial herb	6-8	Moist to boggy soils	High surface area
<i>Cyperus lucidus</i>	Leafy Flat Sedge	Shallow marsh	Emergent macrophytes	0.6-1.5	Robust, tufted perennial herb with sharply triangular stems; large; dense	6-Jan	Wet soils	Can grow as an aquatic plant; slow spreading
<i>Centella asiatica</i>	Swamp Pennywort	Littoral	Ground cover	Prostrate	Creeping perennial herb	2-4	Moist to wet soils	Rapid growth; may become invasive
<i>Boerhaavia mediana</i>	Marsh Club Rush	Marsh	Emergent macrophytes	0.7-2	Aquatic to semi-aquatic rhizomatous perennial	4-8	Moist soils to permanent water	Rapid establishment; spreading
<i>Carex gaudichaudiana</i>	Tufted Sedge	Shallow marsh	Emergent macrophytes	0.1-0.6	Coarse tufted plant	6-8	Gravel or mud at water's edge	Aesthetic; tolerates drawdown
<i>Baumea arthropophylla</i>	Twig Rush	Marsh	Emergent macrophytes	0.3-1.3 (clumps)	Aquatic perennial with long rhizomes	6-8	Wet soils to permanent water	Spreads quickly
<i>Baumea articulata</i>	Jointed Twig Rush	Deep marsh	Emergent macrophytes	1.2	Tall erect rhizomatous perennial	4	Moist soils to permanent water	Slow growth
<i>Baumea juncea</i>	Bare Twig Rush	Littoral	Emergent macrophytes	0.3-1	Rush-like clump with creeping rhizomes	8	Moist to boggy soils; tolerates occasional dry periods	Slow establishment
<i>Baumea tetragona</i>	Square Twig Rush	Marsh	Emergent macrophytes	0.3-1	Rhizomatous perennial	6-8	Moist soils to prolonged inundation; tolerates drier conditions once established	Slow establishment
<i>Isolepis cernua</i>	Swamp Club Rush	Shallow marsh	Emergent macrophytes	0.3		6-8	Inundated	
<i>Juncus pallidus</i>	Pale Rush	Em	Emergent macrophytes	0.5-2.3	Rhizomatous tufted perennial rush	8-10	Grows well with periodic inundation	Rapid growth; adaptable
<i>Nymphaea eximia</i>	Tasmanian Marshwort	Shallow marsh	Emergent macrophytes		Single pale yellow flowers	1	Waterlogged soils	Aesthetic; tolerates drawdown
<i>Pontederia decipiens</i>	Slender Knotweed	Littoral	Emergent macrophytes	Prostrate-0.6	Glabrous, erect to spreading annual herb	2-4	Semi-aquatic to aquatic	Low surface area; aesthetic
<i>Schoenoplectus validus</i>	Large Club Rush	Deep marsh	Emergent macrophytes	0.8-2	Rhizomatous, robust perennial; grass-like or herb (sedge)	4	Moist soil to permanent water	Rapid establishment; spreading

Selected from Table B2 of Appendix B of Aron (2010). *Water Sensitive Urban Design: Engineering Procedures for Stormwater Management in Tasmania*. Department of Primary Industries, Water and Environment.





Attachment 5

(2 pages)

Loading Certificate

Secondary wastewater treatment followed by mulch-covered or subsurface irrigation

The owner should retain and read any certificate of accreditation, operating manual or related documents for the wastewater treatment system selected, to ensure optimal, nuisance free operation of the system with minimal environmental health impacts.

This loading certificate is provided in accordance with Clause 7.4.2(d) of AS/NZS 1547.2012.

System capacity (medium-long term)

6 people. Rainwater tanks. Wastewater (greywater only) generated = 540L/day.

Design criteria summary:

Effluent quality	Secondary from constructed wetlands (reed bed)
Soil category	6
Land application area (LAA)	270m ²

Reserve area.

Available

Water efficient fittings etc

Design assumes use of water efficient fixtures and fittings, eg 9L/min (max) showerheads, aerator fittings on taps and clothes washing machines/dishwashers with WELSS star ratings of 4.5 stars or above. (see <https://apps5a.ris.environment.gov.au/wels-public/search-product-select-load.do>)

Variation from design flow

Design wastewater flow is 540L/day. The system should successfully manage additional peak loadings which may result from occasional extra people provided that this does not exceed design capacity + 50% in a 24-hour period.

Consequences of changing wastewater characteristics

Avoid disposing of wastes which would be additional to those normally disposed of in a domestic sewerage system; in particular, increases in organic loadings such as from the use of sink-waste disposal units are to be avoided.

Use of household disinfectants or bactericides in anything more than small amounts and at recommended rates of dilution should also be avoided, as should the disposal of solvents and other chemicals or pharmaceuticals such as antibiotics or antimicrobials which may kill bacteria and other microorganisms required for effective wastewater treatment.

Consequences of overloading the system

Long term use by more than the specified number of people may result in biological and hydraulic overloading of the disposal system, surfacing of effluent, public and environmental health nuisances, pollution of surface waters etc.

Consequences of underloading the system

The system will work effectively with as few as one person in residence; however long periods of zero-occupancy may result in poor functioning of the system when normal use recommences.





Consequences of lack of operation, maintenance and monitoring attention

Maintain system in accordance with manufacturer's and installer's instructions.

Consequences of failure to observe the regular maintenance requirements may include any of the following:

- Spread of infectious diseases to family and neighbours.
- Nuisance and unpleasant odours.
- Pollution of waterways, streams, beaches and shellfish beds.
- Contamination of bores, wells and groundwater.
- Excessive and unsightly weed growth.
- Alteration of local ecology

Other relevant considerations

- Livestock should not be allowed on or near the constructed wetlands and LAA; if such animals are kept, the wetlands land application area should be fenced off to prevent system damage and/or soil compaction.
- Do not allow vehicles on or near wetlands the LAA.
- If present, keep the surface and/or sub-surface cut-off drain above or adjacent to the LAA open and clear of debris to prevent rainwater flowing into the disposal area.
- Pipe overflow from rainwater tank(s) away from LAA.

Problems may occur with systems which have not been properly maintained and where absorption areas have become blocked or clogged. The warning signs are obvious and include:

- LAA is wet or soggy with wastewater ponding on the surface of the ground.
- "Sewage" smells near septic tank (if present).





Attachment 6

(2 pages)

Risk Assessment

AWTS and mulch-covered shallow subsurface irrigation

Tables 6.1 and 6.2 summarise a risk management approach for the wastewater management system at this site, in general accordance with Clause A3.2 of AS/NZS1547:2012.

Table 6.1 Terminology used in risk management in this report

Table 6.2 Issues relating to the use and sustainable management of the wastewater system at this site

Table 6.1 contains subjective descriptions of likelihood and consequence. Table 6.2 is a risk assessment of the system components.

Table 6.1. Terminology used in risk management in this report

Likelihood	Consequences to property and or indicated stakeholders			
	Major	Medium	Minor	Insignificant
Almost certain	VH	VH	H	L
Likely	VH	H	M	L
Possible	H	M	L	VL
Unlikely	M	L	L	VL
Rare	L	L	VL	VL
Barely credible	VL	VL	VL	VL

Notes

1. An **issue** is a physical, chemical or environmental aspect of a particular site (as listed in Trench3) which should usually (but not necessarily always) be considered in the design of a wastewater system at the site.
2. **Likelihood** describes the possibility – if untreated – of the issue causing a hazard over the projected operational life of the on-site wastewater management system.
3. A **hazard** is a physical, chemical or biological agent with the potential to cause harm.
4. **Consequence** describes the level of impact or harm caused by a hazard:
Insignificant = harm easily remedied by landowner or licenced plumber; all wastewater retained on land application area
Minor = harm requires licenced plumber to remedy; all wastewater retained on land application area
Medium = harm requires licenced plumber to remedy; some or all wastewater discharges via surface or shallow seepage off the land application area but all is retained on the property
Major = harm requires licenced plumber to remedy; some or all wastewater discharges via surface or shallow seepage off the land application area and property to one or more neighbours and/or receiving waters. Regulator serves notice to landowner.
5. **Risk** = Likelihood combined with Consequence. VL = Very Low; L = Low; M = Moderate; H = High; VH = Very High. Levels are colour-coded.
6. **Stakeholders** (Section A3.2.1 of AS/NZS1547:2012)
 (the risk assessment applies to the stakeholders indicated below):

Internal stakeholders

client (property owner)
 property occupier (if not owner)
 site investigator
 system designer
 system installer
 equipment supplier
 servicing agent

External stakeholders

regulator
 neighbouring property owners

7. The definitions of issue, likelihood, consequence and risk shown here are proposed by William C Cromer Pty Ltd, but do not have the approval of any regulatory authority. Comment and feedback are welcomed from wastewater practitioners.





Table 6.2 Issues relating to the use and sustainable management of the wastewater system.
Source: The Director of Building Control Accreditation and Maintenance of Plumbing Installations (November 2017)

Issue #	System component	Size, etc	Confidence level of value used	Potential hazard(s) related to use	Before treatment			Recommended risk treatment (and explanatory notes)	After treatment		
					Likelihood of this issue causing a hazard	Consequences to property and stakeholders if issue causes a hazard	Level of risk to property and stakeholders if issue creates a hazard		Likelihood of this issue becoming a hazard	Consequences to property and stakeholders if issue causes a hazard	Level of risk to property and stakeholders if issue becomes a hazard
1	Composting toilet	Oze-Pod	High	Malfunction of any component	Possible	Medium	Moderate	Maintain in accordance with manufacturer's instructions	Possible	Minor	Low
2	Grease traps and bristle filter	Various	High	Pipework breakage; blockages	Possible	Medium	Moderate	Inspect regularly all components; clean out as required. Replace bristle cone when necessary.	Possible	Minor	Low
3	Constructed wetlands	As shown	High	Blockages; macrophyte issues	Possible	Medium	Moderate	Construct and maintain in accordance with specifications/instructions in this report. Buildings, access tracks, roads, parking areas, heavy-footed animals (horses, cows, etc), motor vehicles must not be located and have no access over the reed bed. If necessary, fence off or otherwise isolate the area. Maintain surface drains and vegetation on and around the area. If mulch-covered, maintain even, required thickness.	Possible	Minor	Low
4	Land Application Area	270m ²	High	Pipework breakage; blockages	Possible	Medium	Moderate	Inspect regularly; flush out as required; replace broken pipework.	Possible	Minor	Low





Attachment 7
(3 pages)
Form 35 for this project

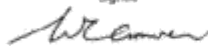
CERTIFICATE OF THE RESPONSIBLE DESIGNER		Section 94 Section 106 Section 129 Section 155
To: <u>A and T Sutherland</u> Owner name		Form 35
<u>tabitha.rose.hodge@gmail.com</u> Address		
<u></u> Suburb/postcode		
Designer details:		
Name:	<u>Bill Cromer</u>	Category: <u></u>
Business name:	<u>William C. Cromer Pty Ltd</u>	Phone No: <u>0408 122 127</u>
Business address:	<u>74A Channel Highway</u>	
	<u>Tareona</u>	Fax No: <u></u>
Licence No:	<u>CC6194Q</u>	Email address: <u>billcromer@bigpond.com</u>
Details of the proposed work:		
Owner/Applicant:	<u>A and T Sutherland</u>	Designer's project reference No: <u></u>
Address:	<u>183 Back Cam Road</u>	
	<u>Somerset</u>	
Type of work:	Building work <input type="checkbox"/>	Plumbing work <input checked="" type="checkbox"/> (if applicable)
Description of work:		
<u>On-site wastewater management system</u>		<small>new building / alteration / addition / repair / removal / re-erect / water / sewerage / stormwater / on-site wastewater management systems / backflow prevention / other</small>
Description of the Design Work (Scope, limitations or exclusions): (if all applicable certificates)		
Certificate Type:	Certificate	Responsible Practitioner
	<input type="checkbox"/> Building design	Architect or Building Designer
	<input type="checkbox"/> Structural design	Engineer or Civil Designer
	<input type="checkbox"/> Fire Safety design	Fire Engineer
	<input type="checkbox"/> Civil design	Civil Engineer or Civil Designer
	<input type="checkbox"/> Hydraulic design	Building Services Designer
	<input type="checkbox"/> Fire service design	Building Services Designer
	<input type="checkbox"/> Electrical design	Building Services Designer
	<input type="checkbox"/> Mechanical design	Building Services Designer
	<input checked="" type="checkbox"/> Plumbing design	Plumber-Certifier, Architect, Building Designer or Engineer
	<input type="checkbox"/> Other (specify)	
Deemed to Satisfy: <input checked="" type="checkbox"/>		Performance Solution: <input type="checkbox"/> (if the appropriate box)
Other details:		
<u>See Cromer (2021) report below</u>		

Director of Building Control - date approved: 2 August 2017

Building Act 2016 - Approved Form 35





Design documents provided:	
The following documents are provided with this Certificate – <i>Document description</i>	
Drawing numbers: See Cromer (2021) report below	Prepared by: Date:
Schedules: See Cromer (2021) report below	Prepared by: Date:
Specifications: See Cromer (2021) report below	Prepared by: Date:
Computations: See Cromer (2021) report below	Prepared by: Date:
Performance solution proposals: See Cromer (2021) report below	Prepared by: Date:
Test reports: See Cromer (2021) report below	Prepared by: Date:
Standards, codes or guidelines (where applicable) relied on in design process:	
AS/NZS1547:2012 On-site domestic wastewater management Cromer, W. C. (1999). Trench™3.8: A computer application for site assessment and system sizing, in Patersons, R. A. (Ed.) On-site '99 – Proceedings of the On-Site '99 Conference: Making on-site wastewater systems work. Univ. of New England, Armidale, 13-15 Jul 1999, pp 85-88 E23.0 Tasmanian On-site Wastewater Management Code The Tasmanian Director of Building Control's Guidance for On-site Wastewater Management Systems (Nov 2017) The Tasmanian Director of Building Control's Determination – Accreditation and Maintenance of Plumbing Installations (Dec 2016)	
Any other relevant documentation:	
Cromer, W. C. (2021). Site and Soil Evaluation Report, and System Design for On-site Wastewater Management, proposed new house at 183 Back Cam Road, Somerset. Unpublished report for A and T Sutherland by William C. Cromer Pty. Ltd., 17 June 2021.	
Attribution as designer:	
I William C Cromer, am responsible for the design of that part of the work as described in this certificate; The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the Building Act 2016 and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act. This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.	
Designer:	Name (print) William C Cromer Signed  Date 17 June 2021
Licence No:	CC6184Q





Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- ☒ The works will not increase the demand for water supplied by TasWater
- ☒ The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- ☒ The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- ☒ The works will not damage or interfere with TasWater's works
- ☒ The works will not adversely affect TasWater's operations
- ☒ The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- ☒ I have checked the LISTMap to confirm the location of TasWater infrastructure
- ☒ If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

Certification:

I, William C Cromer, being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the Water and Sewerage Industry Act 2008, that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

Designer: William C Cromer William C Cromer 17 June 2021





Attachment 8

(2 pages)

**Documents required when applying for a plumbing permit
for an on-site wastewater management system**

Source: Director of Building Control Director's Specified List (Part 3), September 2017 v1.2
Stakeholders should check online that this is the latest version.

The documents listed below are required to accompany an application for a plumbing permit for the installation of an on-site wastewater management system.

1. Complete drawings of the installation, drawn to a scale of not less than 1:200 or as agreed to by the Permit Authority, showing the following:
 - (a) the title boundaries of the land;
 - (b) the position of any existing or proposed buildings on the land and their use;
 - (c) the position of any roads or driveways on the land;
 - (d) the location of any water courses;
 - (e) the contours on the land;
 - (f) the position of the Wastewater treatment unit; Wastewater land application area (absorption trenches, mound, irrigation area); Pump chamber, distribution box or other manual or automatic valve; Soil evaluation test holes.
 - (g) the location and size of any drains and vents;
 - (h) the location of any cut-off drains diverting surface water or sub-soil drains for ground water;
 - (i) the location of the outlets from the building;
 - (j) A cross section drawing demonstrating that there is sufficient gravity fall from the plumbing fixtures to the wastewater treatment unit and land application area.
 - (k) Operation and maintenance guidelines for the OWMS
 - (l) Installation instructions for the wastewater treatment unit and land application area
2. Written details of the proposed fixture unit load on the system or parts of the system.
3. A site-and-soil evaluation report completed in accordance with AS/NZS 1547:2012 clause 5.2
4. A Design report which is consistent with the Director of Building Control Onsite Wastewater Management Guidelines and includes the following:
 - (a) A design based on the site and soil evaluation report
 - (b) Design calculations for the wastewater land application system and wastewater treatment unit
 - (c) Specification for the wastewater treatment unit, if a unique on-site wastewater management system a design report from a suitably qualified designer demonstrating compliance with the performance requirements of the Volume 3 of the NCC.
 - (d) A loading certificate setting out the design criteria and the limitations associated with use of the system incorporating the following:
 - System capacity (number of persons and daily flow)
 - Summary of design criteria
 - The location of and use of the reserve area
 - Use of water efficient fittings, fixtures, or appliances





- Allowable variation from design flows (peak loading events)
- Consequences of changes in loading (due to varying wastewater characteristics)
- Consequences of overloading the system
- Consequences of underloading the system
- Consequences of lack of operation, maintenance, and monitoring attention
- Any other relevant considerations related to use of the system; and

(e) The results of the risk management process undertaken in accordance with AS/NZS 1547 Clause A3.2, if required by the Director of Building Control Onsite Wastewater Management Guidelines.

5. A written specification and construction details of the land application system to be used, including details of the following:

- (a) the type of system;
- (b) the trade name, if any;
- (c) the manufacturer's name and address;
- (d) the design capacity of the system; and
- (e) a section (drawing detail) through the land application system, of not less than 1:20, specifying its construction.
- (f) Pump chamber capacity, pump and supply pipe specifications (where appropriate)
- (g) Distribution boxes, automatic sequencing valves, dosing syphons or other pulse dosing devices.

6. Copy of Certificate of Accreditation issued under the Building Act by the Director of Building Control for the on-site wastewater management system (if applicable).

7. Any other document or certificate required by the relevant permit authority or environmental health officer



9 September 2022

Reference No. GL22561Aa

Mr Ashley O'Shea
183 Back Cam Road
Somerset TAS 7322

Dear Sir

RE: Subdivision
183 Back Cam Road, Somerset

1 INTRODUCTION

At the request of Mr Ashely O'Shea, Geoton Pty Ltd has carried out a risk assessment for a subdivision at 183 Back Cam Road, Somerset (Title Reference 105238/1). A site plan showing the proposed lot boundaries was provided, prepared by EnviroPlan (Project No.220132, Drawing No.A02, dated 15/11/21). It is understood that the proposed subdivision is to consist of 2 lots:

- Lot 1 – 9.6ha; and
- Lot 2 – 1.5ha

From the Waratah-Wynyard Interim Planning Scheme 2013, the sites contain minor areas mapped as Medium Landslide Hazard Bands. As such, it is understood that the Waratah-Wynyard Council has indicated that as the sites contain areas mapped within an area of doubtful stability, it is a requirement that the proposed subdivision be assessed to determine if they comply with the landslip requirements of the Hazard Management Code (Code E6) of the Waratah-Wynyard Interim Planning Scheme. That is, does the proposed subdivision significantly increase the level of risk from exposure to the landslide hazard and is the intended use likely to cause or contribute to the occurrence of a landslide on the site or on adjacent land.

2 BACKGROUND

2.1 Geology

The Mineral Resources Tasmania (MRT) Tasmanian Landslide Map Series, Wynyard – Geology Map, 1:25,000 Scale, indicates that the site is mapped as Proterozoic aged quartzwacke.

Subdivision

2.2 Landslide Hazard

Examination of the LIST Landslide Planning Map indicates that the proposed Lot 2 is **not** mapped within a Landslide Hazard Band. Minor areas within Lot 1 are mapped within a medium hazard band. The mapped medium hazard bands are a minimum of 70m from the proposed subdivision boundary.

Examination of the MRT Tasmanian Landslide Map Series, Wynyard – Landslide Inventory sheet, 1:25,000 scale, indicates that the site is not located within a mapped past landslide.

3 SITE DESCRIPTION

The overall site predominantly consists of smooth convex slopes and is heavily vegetated. The proposed Lot 1 contains an existing dwelling and Lot 2 is currently vacant. The proposed lot boundary is located on smooth moderate slopes to the north and did not display any distinct signs of any recent landslide activity.

4 DISCUSSION AND CONCLUSIONS

We consider that the proposed subdivision will not increase the current landslide risk and does not require any specific hazard reduction or protection measures at the site due to the following:

- The use of the land within Lot 1 will not significantly change;
- The proposed Lot 2 and subdivision boundary will not impact on the stability of the existing dwelling/sheds within Lot 1;
- The proposed subdivision will not trigger, spread, or intensify the already existing landslide hazard;
- The proposed Lot 2 is not within a mapped Landslide Hazard Band;
- The proposed Lot 1 and Lot 2 is not located within a mapped past landslide; and
- The slopes in close proximity to the proposed lot boundary are typically smooth convex slopes and did not display any distinct signs of any recent landslide activity.

Based on the findings of the assessment we consider that the proposed subdivision would not adversely impact on the site and immediate surroundings nor increase its current assessed landslide risk. The proposed subdivision therefore is not likely to cause or contribute to the occurrence of a landslide on the site or on adjacent land.

As such, we consider that the proposed subdivision will not result in an increase in the current level of risk to warrant any specific hazard reduction or protection measures. Therefore, we consider that the proposed subdivision can be exempt under E6.4.4 of the Hazard Management Code of the Waratah-Wynyard Interim Planning Scheme 2013.

Subdivision

5 CLOSURE

Should you require further information or clarification of any details, please do not hesitate to contact Matthew Street or the undersigned.

For and on behalf of Geoton Pty Ltd



Tony Barriera

Director

Attachments: Limitations of report

Geotechnical Consultants - Limitations of report

These notes have been prepared to assist in the interpretation and understanding of the limitations of this report.

Project specific criteria

The report has been developed on the basis of unique project specific requirements as understood by Geoton and applies only to the site investigated. Project criteria are typically identified in the Client brief and the associated proposal prepared by Geoton and may include risk factors arising from limitations on scope imposed by the Client. The report should not be used without further consultation if significant changes to the project occur. No responsibility for problems that might occur due to changed factors will be accepted without consultation.

Subsurface variations with time

Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. In the event of significant delays in the commencement of a project, further advice should be sought.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and at the time they are taken. All available data is interpreted by professionals to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, as it is virtually impossible to provide a definitive subsurface profile which includes all the possible variabilities inherent in soil and rock masses.

Report Recommendations

The report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete and therefore the report recommendations can only be regarded as preliminary. Where variations in conditions are encountered, further advice should be sought.

Specific purposes

This report should not be applied to any project other than that originally specified at the time the report was issued.

Interpretation by others

Geoton will not be responsible for interpretations of site data or the report findings by others involved in the design and construction process. Where any confusion exists, clarification should be sought from Geoton.

Report integrity

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

Geoenvironmental issues

This report does not cover issues of site contamination unless specifically required to do so by the client. In the absence of such a request, Geoton take no responsibility for such issues.



Application for Planning Permit
Proposed Subdivision, Dwelling and Outbuilding
In the
Rural Living Zone
183 Back Cam Road, Somerset

Supporting Documentation

15/11/2021

CONSULTANT DETAILS



Mr. Micheal Wells GradDipUrbRegPlanBEnvDesDipBldgConst

Town Planner, Builder, Bushfire Assessor, Building Designer, Fire Engineer (IFE) Forest Botanist
Bushfire Accreditation No: BFP-128



Mr. Lucas Nguyen

Graduate Town Planner

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Document Status

Revision No	Author	Vetting	Signature	Date
1	L. Nguyen	M. Wells		15/11/2021

Engagement & Invoicing Directions

EnviroPlan Australia (*the Agent*) has been engaged by Gray & Leslie Hodge (*the Permit Holder*) to prepare documentation for a planning permit for a Proposed Subdivision and Dwelling located on land known as 183 Back Cam Road, Somerset. Any Permit issued is affixed to land and not an individual.

The services rendered by *the Agent* are strictly limited to the preparation of documentation in order to obtain planning permissions only. *The Agent* is not to be considered as the "permit holder" as part of any permit condition issued by any Authority and is not responsible for any costs incurred through a *Permit Holder* enacting a permit condition.

In such circumstances where the primary *Permit Holder* named above sells land or otherwise relinquishes the land; the new permit holder is the party responsible for all costs and invoices incurred by enacting any permit issued that is affixed to the land.

Under **no circumstances** is EnviroPlan Australia (*the Agent*) to be invoiced as 'the responsible party for payment' for any invoice issued by the Planning Authority or TasWater (including any other referral agency) either as part of this primary planning application or at any stage thereafter.

The Land – Site

Title & Description

The Certificate of Title for the subject site is C/T: 105238 / 1, PID: 7902963.

A copy of the title is provided as Annexure A.

The street address is 183 Back Cam Road, Somerset and Gray & Leslie Hodge is the owner.



Figure 1 – Location of land 183 Back Cam Road, Somerset

The 11.1 ha property fronts onto Back Cam Road and is located on eastern side of the road.

Existing Use and Development

The current use of land is residential. Currently there is a dwelling and associated sheds located on the property.

Site Analysis

Topography

The western half of the subject land falls from south to north. The west half of the subject land falls from the central area towards cam river to the north east and south.

Drainage

Drainage to the site is via the following method:

- Stormwater is/is intended to be disposed of through on site tanks with an overflow that is distributed throughout a soakage area within the allotment
- Sewerage is intended to be disposed of within an on-site waste water system
- The site has an existing waste water treatment system

Land Capability

The land is within a delineated area of the Land Capability Survey Tasmania by RM Morton and CJ Grose; Department of Primary Industry and Fisheries: Tasmania 1997. The soil classification of the subject site is Class 5 & 6. However, the site has been rezoned and developed for another purpose and it therefore not considered as agricultural land under the definitions of the PAL Policy.



Figure 2 – Land Capability of site 183 Back Cam Road, Somerset – source: www.thelist.tas.gov.au

Access

Access to the site is via the following method:

- Access to the subject land is off Back Cam Road via a formed rural crossover.

Reticulated Services

The following describes the reticulated services that service the immediate area:

- Water reticulation is not available to the subject site
- Sewer reticulation is not available to the subject site
- Stormwater reticulation is not available to the subject site
- Telephone services are available within the subject area
- Overhead electricity reticulation is available within the subject area

Surrounding Property Use

The surrounding land use is described as:

- North – residential uses, bushland and Cam River
- East – Cam River and bushland
- South - residential uses, bushland and Cam River, and
- West – residential uses and bushland.

Lands Limitations

Minor limitations have been identified within the subject site. The limitations are described as:

- Medium level landslide risks are mapped on the property, however, no landslide risks are within the area of the proposed subdivisional site and it is therefore deemed that the proposal is exempted from the Code as there is no risk caused by the development.



Figure 3 – Landslide Layer, 183 Back Cam Road, Somerset – source: www.thelist.tas.gov.au

Proposal

The applicants, Gray & Leslie Hodge are seeking to construct a Proposed Subdivision and Dwelling under the Waratah-Wynyard Interim Planning Scheme 2013.

The proposal seeks to create a subdivision of the subject land with lot 1 containing the existing dwelling and associated structures. Lot 2 proposes a new residential dwelling and outbuilding as part of this application.

A copy of the proposal plans is included as Annexure B.

The applicant is applying to the Council, as the Planning Authority, to utilise its discretion and approve the development in accordance with the provisions of Section 57 of the Land Use Planning and Approvals Act 1993.

Planning Scheme Provisions

The applicable planning instrument is the Waratah-Wynyard Interim Planning Scheme 2013 and the subject land is zoned as Rural Living.

The relevant sections of the Planning Scheme are listed below for discussion. The relevant issue and item identifier is provided and states whether the proposal meets the Acceptable Solutions (AS) or the Performance Criteria (PC) for each relevant section.

The clauses that are not applicable to the proposal have not been discussed.

The applicable Scheme standards for development in the Rural Living Zone are described in the following relevant sections of the Waratah-Wynyard Interim Planning Scheme 2013:

13.0 Rural Living Zone

- 13.1 Zone Purpose
- 13.1.1 Zone Purpose Statements
- 13.1.2 Local Area Objectives
- 13.1.3 Desired Future Character Statements

13.2 Use Table

13.3 Use Standards

13.4 Development Standards

- 13.4.1 Suitability of a site or lot for use or development
- 13.4.2 Dwelling density
- 13.4.3 Location and configuration of development
- 13.4.4 Acoustic and visual privacy for residential development
- 13.4.5 Private open space for multiple dwelling residential use
- 13.4.6 Setback of development for sensitive use
- 13.4.7 Subdivision
- 13.4.8 Reticulation of an electricity supply to new lots on a plan of subdivision

Part E Codes

- E1 Bushfire-Prone Areas Code
- E2 Airport Management Code – Not Applicable
- E3 Clearing and Conversion of Vegetation Code
- E4 Change in Ground Level Code
- E5 Local Heritage Code – Not Applicable
- E6 Hazard Management Code – Not Applicable
- E7 Sign Code – Not Applicable
- E8 Telecommunication Code – Not Applicable
- E9 Traffic Generating Use and Parking Code
- E10 Water and Waterways Code – Not Applicable

Part F Special Area Plans

- There are no specific area plans in relation to the Waratah-Wynyard Interim Planning Scheme 2013

13.0 Rural Living Zone

13.1 Zone Purpose

13.1.1 Zone Purpose Statements

13.1.1.1

To provide for residential use or development on large lots in a rural setting where services are limited.

13.1.1.2

To provide for compatible use and development that does not adversely impact on residential amenity.

13.1.2 Local Area Objectives

The proposal is not inconsistent with the Local Area Objectives where:

13.1.2.1

- a) *Use and development retains a rural setting*
- b) *Rural living areas make efficient use of land and optimise available infrastructure through a balance between infill and redevelopment of established rural living areas and release of new land*
- c) *The type, scale and intensity of use or development is consistent with the capacity of infrastructure services, land capability, the level of risk from exposure to natural hazards, and the protection of land significant for primary production;*
- d) *Rural living areas provide opportunity for housing in single and multiple dwellings for individual, shared, and supported accommodation through private, public, and social investment;*
- e) *Rural living areas enable small-scale employment opportunities in home occupation and home based-business;*
- f) *New or intensified use or development is restricted if the limit of a constraint on residential use is unknown or uncertain.*
- g) *Rural living areas have no priority purpose for primary industry use*
- h) *The amenity and character of residential use is commensurate with the location of housing and support activity within a rural setting and is to take into account –*
 - i. *likely compromise as a result of factors arising from –*
 - a. *occupational and operational practices of primary industry and other use on adjacent rural land;*
 - b. *possible absence or under-provision of transport infrastructure and utilities;*
 - c. *possible absence of facilities for convenience retail, education, entertainment, health and social support, and for sports and recreation;*
 - d. *likelihood for exposure to a natural hazard; and*
 - e. *relative remoteness from an urban centre*
 - j) *the effect of location and configuration of buildings within a site on –*
 - a. *apparent bulk and scale of buildings and structures within the rural setting;*
 - b. *opportunity for on-site provision of private open space and facilities for parking of vehicles;*
 - c. *opportunity for access to daylight and sunlight;*
 - d. *visual and acoustic privacy between adjacent dwellings; and*
 - e. *consistency of the streetscape*

13.1.3 Desired Future Character Statements

The proposal is consistent with the applicable Desired Future Character Statement/s where:

13.1.3.1

- a) *occur as discrete, contiguous, and ordered clusters of dwellings and associated buildings embedded in a rural setting;*
- b) *provide sites that are larger than suburban lots, although size is dependent on availability of utilities, land capability, and retention of a rural setting;*
- c) *provide housing as a predominant but not exclusive use;*
- d) *provide choice and diversity in the type and form of buildings for housing and non-housing development;*
- e) *provide buildings that are typically of one or two storeys;*
- f) *provide a landscape in which buildings are set well apart from buildings on adjacent sites and from the frontage road;*
- g) *have very low site coverage and sufficient unbuilt area to accommodate any requirement for on-site disposal or sewage or stormwater; and*
- h) *may be self-sufficient with respect to water supply and arrangements for the treatment and disposal of sewage and stormwater*

13.2 Use Table

13.3 Use Standards

13.4 Development Standards

13.4.1 Suitability of a site or lot for use or development

Objective:

The minimum properties of a site and of each lot on a plan of subdivision are to –

- a) *provide a suitable development area for the intended use;*
- b) *provide access from a road; and*

- c) make adequate provision for a water supply and for the drainage and disposal of sewage and stormwater

Acceptable Solutions A1

Each site or each lot on a plan of subdivision must –

- a) have an area of not less than –
- i. 1 ha excluding any access strip; or
 - ii. if in a locality shown in the Table to this Clause, not less than the site area shown for that locality; and
- b) if intended for a building, contain a building area –
- i. of not more than 1,000m²;
 - ii. clear of any applicable setback from a frontage, side or rear boundary
 - iii. clear of any applicable setback from a zone boundary;
 - iv. clear of any registered easement;
 - v. clear of any registered right of way benefiting other land;
 - vi. clear of any restriction imposed by a utility;
 - vii. not including any access strip;
 - viii. clear of any area required for the on-site disposal of sewage or stormwater; and
 - ix. accessible from a frontage or access strip

Discussion:

Each Lot has an area greater than 1 ha as demonstrated in the submission plans.

As demonstrated in the submission plans, lot 2 proposes a new dwelling and shed which comply with the provision of A1 above.

Performance Criteria P2

- a) A site must have a reasonable and secure access from a road provided –
- i. across a frontage; or
 - ii. by an access strip connecting to a frontage, if for an internal lot; or
 - iii. by a right of way connecting to a road over land not required to give the lot of which it is a part the minimum properties of a lot in accordance with the acceptable solution in any applicable standard; and
 - iv. the dimensions of the frontage and any access strip or right of way must be adequate for the type and volume of traffic likely to be generated by –
 - v. the intended use; and
 - vi. the existing or potential use of any other land which requires use of the access as the means of access for that land; and
 - vii. the relevant road authority in accordance with the Local Government (Highways) Act 1982 or the Roads and Jetties Act 1935 must have advised it is satisfied adequate arrangements can be made to provide vehicular access between the carriageway of a road and the frontage, access strip or right of way to the site or each lot on a subdivision plan; or
- b) It must be unnecessary for the development to require access to the site or to a lot on a subdivision plan.

Discussion:

The proposal intends to utilise the existing access of Back Cam Road. Lot 1 intends to have a right of way (ROW) over the exiting driveway that traverses over proposed lot 2. The frontages and ROW are of adequate size for the intended uses of the subject lands.

Acceptable Solutions A3

A site or each lot on a plan of subdivision must be capable of connecting to a water supply –

- a) from a connection to a water supply provided in accordance with the Water and Sewerage Industry Act 2008; or
- b) from a rechargeable drinking water system R6 with a storage capacity of not less than 10,000 litres if –
- i. there is not a reticulated water supply; and
 - ii. development is for –
 - a. a single dwelling; or
 - b. a use with an equivalent population of not more than 10 people per day

Discussion:

Lot 1 is already connected to a water supply with storage capacity greater than 10,000L. Lot 2 is capable of connecting to a rechargeable water supply with capacities of not less than 10,000L satisfying A3 above.

Acceptable Solutions A4

A site or each lot on a plan of subdivision must be capable of draining and disposing of sewage and trade waste –

- a) to a reticulated sewer system provided in accordance with the Water and Sewerage Industry Act 2008; or
- b) by on-site disposal if –
 - i. sewage or trade waste cannot be drained to a reticulated sewer system; and
 - ii. the development –
 - a. is for a single dwelling; or
 - b. provides for an equivalent population of not more than 10 people per day; or
 - c. creates a total sewage and waste water flow of not more than 1,000l per day; and
 - iii. the site has capacity for on-site disposal of domestic waste water in accordance with AS/NZS 1547:2012 On-site domestic-wastewater management clear of any defined building area or access strip

Discussion:

Lot 1 will retain its existing on-site disposal of sewage. Lot 2 is capable of on-site disposal of sewage which is demonstrated in the waste water report satisfying A4 (b).

Acceptable Solutions A5

A site or each lot on a plan of subdivision must be capable of draining and disposing of stormwater –

- a) for discharge to a stormwater system provided in accordance with the Urban Drainage Act 2013; or
- b) if stormwater cannot be drained to a stormwater system –
 - i. for discharge to a natural drainage line, water body, or watercourse; or
 - ii. for disposal within the site if –
 - a. the site has an area of not less than 5000m²;
 - b. the disposal area is not within any defined building area;
 - c. the disposal area is not within any area required for the disposal of sewage;
 - d. the disposal area is not within any access strip; and
 - e. not more than 50% of the site is impervious surface; and
 - iii. the development is for a single dwelling

Discussion:

Lot 1 will retain its existing stormwater system. Lot 2 has an area greater than 5000m². The stormwater disposal areas are not to be located within a defined building area, sewage disposal area or access strip. Not more than 50% of the site is an impervious surface lot 1 is intended for a single dwelling and therefore the proposal remains consistent with A5 above.

13.4.2 Dwelling density

Objective:

Residential dwelling density [R7] is to –

- a) make efficient use of land for housing;
- b) optimise utilities and community services; and
- c) be consistent with any constraint on suitability of the land for residential use

Acceptable Solutions A1

The site area per dwelling must –

- a) be not less than 1.0 ha; or
- b) if the site is in a locality shown in the Table to this Clause, the site area for that locality

Discussion

Lot 2 proposes a single dwelling on a lot size greater than 1 ha satisfying A1 (a) above.

13.4.3 Location and configuration of development

Objective:

The location and configuration of development is to –

- a) provide for retention of the rural setting;
- b) be consistent with land capability;
- c) provide a consistent separation between the development area on adjacent sites and between development and a road;
- d) provide consistency in the apparent scale, bulk, massing, and proportion of adjacent buildings;

- e) provide sufficient site area for open space, utilities, and vehicle parking; and
- f) assist to attenuate likely impact on amenity of residential use on adjacent land

Acceptable Solutions A1

A building, utility structure, garage or carport must be setback from a frontage –

- a) not less than 20.0m;
- b) not less than or not more than the setbacks for any existing building on each of the immediate adjoining sites;
- c) not less than for any building retained on the site;
- d) in accordance with any building area shown on a sealed plan of subdivision; or
- e) if the site abuts a road shown in the Table to this clause, the setback specified for that road

Discussion:

As demonstrated in the submission plans, the proposed buildings on lot 2 has a frontage setback greater than 20m satisfying A1 above.

Acceptable Solutions A2

All buildings must be contained within a building envelope determined by –

- a) the applicable frontage setback;
- b) a setback of not less than 10.0m from each side boundary;
- c) a setback of not less than 10.0m from the rear boundary;
- d) a setback of not less than 20.0m from any designated building area on each adjacent site; or
- e) any building area shown on a sealed plan; and
- f) building height of not more than 8.5m

Discussion:

As demonstrated in the submission plans, the proposed buildings on lot 2 remains consistent with the applicable boundary setbacks. The proposed building heights remain under 8.5m. The existing building on lot 1 retain their existing side and rear boundary setbacks with a new setback distance of over 120m to the proposed new boundary.

Acceptable Solutions A3

Site coverage must –

- a) be not more than 500m² ; and
- b) not include any part of a site required for the disposal and drainage of sewage or stormwater; or
- c) be not more than any building area shown on a sealed plan

Discussion:

Site coverage is not more than 500m² and does not include any area of the site required for disposal and drainage of sewage and stormwater.

Acceptable Solutions A4

- a) A utility structure must be a power pole, antenna or a single domestic-scale turbine to a maximum of 10m in height which is –
 - i. not part of a wind farm;
 - ii. not sited on a skyline; and
 - iii. if a wind turbine, not located within 60m of a dwelling in other ownership nor within 30m of a public road.
- b) A building, except a utility structure must be –
 - i. located not less than 15m below the level of any adjoining ridgeline; and
 - ii. not less than 30m from any shoreline to a marine or aquatic water body, water course, or wetland; and
 - iii. clad and roofed with materials with a light reflectance value of less than 40%.

Discussion:

The proposed buildings are located not less than 15m below a ridgeline and is not located within 30m of a watercourse. The proposed building are intended to be clad in materials with a light reflectance value of less than 40 % satisfying A4 (b). A4 (a) is not applicable to this application.

Acceptable Solutions A5

Area for the display, handling of goods, storage or waste must not be located in front of the building line.

Discussion:

Area for the display, handling of goods, storage or waste is intended not to be located in front of the building line satisfying A5 above.

13.4.4 Acoustic and visual privacy for residential development

Objective:

The location and configuration of development is to minimise likelihood for –

- a) overlooking of a habitable room, balcony, deck, or roof garden in an adjacent dwelling;*
- b) intrusion of vehicle noise from an access strip or communal driveway*

Acceptable Solutions A1

A door or window to a habitable room or any part of a balcony, deck, roof garden, parking space or carport of a building must –

- a) be not less than 10.0m from a side boundary and 10.0 m from a rear boundary to adjoining land in any zone for residential purposes; or*
- b) be not less than 10.0m from a door or window to a habitable room or any part of a balcony, deck, or roof garden in an adjacent dwelling*

Discussion:

The proposed dwelling is not located within 10m of a side or rear boundary and is not located within 10m of an adjacent dwelling remaining consistent with A1 above.

Acceptable Solutions A2

An access strip or shared driveway, including any pedestrian pathway and parking area, must be separated by a distance of not less than 5.0m horizontally from the door or window to a dwelling or any balcony, deck, or roof garden in a dwelling.

Discussion:

The access strip is not located within 5m of a proposed dwelling on lot 2 satisfying A2 above.

13.4.6 Setback of development for sensitive use

Objective:

Development for a sensitive use is to –

- a) minimise likelihood for conflict, interference, and constraint between the sensitive use and the use or development of land in a zone that is not for a residential purpose; and*
- b) minimise unreasonable impact on amenity of the sensitive use through exposure to emission of noise, fumes, light and vibration from road, rail, or marine transport*

Acceptable Solutions A1

A building containing a sensitive use must be contained within a building envelope determined by –

- a) the setback distance from the zone boundary as shown on the Table to this clause; and*
- b) projecting upward and away from the zone boundary at an angle of 45o above the horizontal from a wall height of 3.0m at the setback distance from the zone boundary*

Discussion:

The proposed dwelling on lot 2 is contained within the building envelope and remain consistent with the applicable setback distances shown in the Table to this Clause satisfying A1 above.

Acceptable Solutions A2

Development for a sensitive use must be not less than 50m from –

- a) a major road identified in the Table to this clause;*
- b) a railway;*
- c) land designated in the planning scheme for future road or rail purposes; or*
- d) a proclaimed wharf area*

Discussion:

The proposal is not within 50m of the Bass Highway, a railway, land designated for a future road or a proclaimed wharf and therefore satisfies A2 above.

13.4.7 Subdivision**Objective:**

The division and consolidation of estates and interests in land is to create lots that are consistent with the purpose of the Rural Living zone

Acceptable Solutions A1

Each new lot on a plan of subdivision must be –

- a) *intended for residential use;*
- b) *a lot required for public use by the State government, a Council, a Statutory authority or a corporation all the shares of which are held by or on behalf of the State, a Council or by a statutory authority*

Discussion:

Each lot is intended for a residential use complying with A1 (a) above.

Performance Criteria P2

- a) *An internal lot on a plan of subdivision must be –*
 - i. *reasonably required for the efficient use of land as a result of a restriction on the layout of lots with a frontage imposed by –*
 - a. *slope, shape, orientation and topography of land;*
 - b. *an established pattern of lots and development;*
 - c. *connection to the road network;*
 - d. *connection to available or planned utilities;*
 - e. *a requirement to protect ecological, scientific, historic, cultural or aesthetic values, including vegetation or a water course; or*
 - f. *exposure to an unacceptable level of risk from a natural hazard; and*
 - ii. *without likely impact on the amenity of adjacent land*

Discussion:

The proposal features internal allotment which is demonstrated within the submission plans. The layout of the proposal subdivision was design having regards to the shape and topography of the subject site. Internal allotments are already featured along Back Cam Road and therefore the proposal remains consistent with the established pattern of lots. The proposal provides connections to the road network and existing infrastructure in the area and therefore the proposal remains consistent with P2 above.

13.4.8 Reticulation of an electricity supply to new lots on a plan of subdivision**Objective:**

Distribution and connection of reticulated electricity supply to new lots on a plan of subdivision is to be without visual intrusion on the streetscape or landscape qualities of the residential area

Performance Criteria P1

It must be impractical, unreasonable, or unnecessary to install electricity reticulation and site connections underground

Discussion:

Overhead electricity infrastructure is already feature in the area and it would be impractical and unreasonable for site connections to be underground for the size of the development.

Part E Codes

E1 Bushfire-Prone Areas Code

The proposal is a subdivision and is therefore subject to the provisions of the Code. A bushfire hazard management plan from an accredited person is featured as an annexure to this report.

E2 Airport Management Code - Not Applicable

The proposal is not located within the areas defined within the Air Navigation Services – Aircraft Operations Surfaces on planning scheme maps and is therefore not applicable to the code.

E3 Clearing and Conversion of Vegetation Code

E3.6.1 Protection of a threatened native vegetation community or native vegetation providing habitat for a threatened species

Objective:

The clearing and conversion of native vegetation is to minimise likely adverse impact on biodiversity, ecological process, and habitat value.

Acceptable Solution – A1

- a) *Vegetation must not be any of the following*
 - i. *a threatened native vegetation community;*
 - ii. *contain threatened flora or be threatened fauna habitat; or*
 - iii. *be within 30m of a water body, watercourse, wetland, or coastal shoreline; or*
- b) *the removal or destruction of any rare or threatened species or rare or threatened communities protected under state or commonwealth legislation must not occur unless authorised by the appropriate agency*

Discussion:

The area of vegetation clearing is not within an area that contains a threatened native vegetation community, threatened flora or be threatened fauna habitat and is not located within 30m of a watercourse complying with A1 above.

E3.6.2 Clearing of vegetation on land of scenic or landscape value

Objective:

The clearing and conversion of vegetation is to minimise likely adverse impact on scenic or landscape value –

- a) *on land in the Environmental Living zone, Environmental Management zone, Open Space zone, and Rural Living zone;*
or
- b) *on land identified on the planning scheme map as significant for scenic or landscape value*

Performance Criteria – P1

- a) *Clearing and conversion of vegetation must –*
 - i. *be necessary to deliver an overriding social, economic or environmental benefit to the community; or*
 - ii. *be justified by exceptional circumstances; and*
 - iii. *there is no suitable alternative site; or*
- b) *be consistent with the objectives and outcomes for any scenic or landscape management plan incorporated as a document forming part of this planning scheme; and*
- c) *the extent of clearing and conversion must –*
 - i. *retain a sufficient intensity and distribution of vegetation to screen cleared and converted areas;*
 - ii. *not impact on the visual qualities of a shoreline, skyline, ridge, or other prominent landform feature;*
 - iii. *not be exposed to view from a road, public place, or settlement area; and*
 - iv. *include measures to minimise likely adverse impact for scenic or landscape value*

Discussion:

The proposal intends to only clear where necessary for bushfire compliances for the proposed dwelling. The proposed location of the dwelling provides the ability to retain vegetation between the building site and surround land features such as Back Cam road and Cam River which minimises its visual impacts. The proposed dwelling utilise natural tones which is in harmony with a rural setting further minimises its visual impacts from surrounding areas remaining consistent with P1 above.

E3.6.3 Clearing of vegetation on land susceptible to landslide

Objective:

The clearing and conversion of vegetation on land in a landslide hazard area to which Code E6 – Hazard Management applies under this planning scheme is to minimise risk for activating a landslide.

Acceptable Solution – A1

The site must be within an area –

- a) exposed to a low level of likely risk from landslide; and
- b) a landslide hazard risk assessment as defined in E6 ⁴² must indicate clearing of native vegetation –
 - i. can achieve and maintain a tolerable level of risk; or
 - ii. there is an insufficient increase in the level of risk to warrant any specific hazard reduction or protection measures; or
 - iii. any condition or requirement for specific hazard reduction or protection measures

Discussion:

Not applicable – the extent of clearing is not within an area containing any mapped landslide hazards risks.

E4 Change in Ground Level Code

E4.6.1 Change in existing ground level or natural ground level

Objective:

Change in the existing ground level or the natural ground level by cut or fill is to minimise –

- a) likely adverse impact on the physical, environmental, cultural, aesthetic, and amenity features of land; and
- b) risk from a natural hazard

Acceptable Solution – A1

Cut or fill must –

- a) not be on land within the Environmental Living zone or the Environmental Management zone;
- b) be required to –
 - i. provide a construction site for buildings and structures;
 - ii. facilitate vehicular access;
 - iii. mitigate exposure to a natural or environmental hazard;
 - iv. facilitate provision of a utility;
 - v. assist the consolidation or intensification of development; or
 - vi. assist stormwater management
- c) not result in a modification of surface stormwater water flow to increase –
 - i. surface water drainage onto adjacent land;
 - ii. pooling of water on the site or on adjacent land; or
 - iii. the nature or capacity of discharge from land upstream in a natural or artificial drainage channel;
- d) not destabilise any existing building or increase the requirements for construction of any potential building on adjacent land;
- e) manage disposal of intersected ground water;
- f) safeguard the quality of receiving waters through measures to minimise erosion and release of sediments and other contaminants during each of the site preparation, construction and rehabilitation phase in accordance with *Soil and Water Management on Building and Construction Sites 2009*;
- g) Not require a retaining or support structure that would result in an area of influence within the boundary of adjacent land; and
- h) not encroach upon or expose, disturb, or reduce cover over an underground utility to less than 1.0m unless the relevant regulatory entity has advised –
 - i. it is satisfied the cut or fill will not result in harm to the utility; and
 - ii. any condition or requirement it determines are appropriate to protect the utility

Discussion:

The subject site is located within the Rural Living Zone and any cut/fill of the site would be required to provide a construction site for the proposed buildings. The proposal is sufficiently setback from adjacent land that any cut/fill of the site would not impact adjacent lands or any adjacent buildings within the vicinity. Site preparation, construction and rehabilitation phase of the development is intended to be in accordance with *Soil and Water Management on Building and Construction Sites 2009*.

Any support/retaining structures required for the development would have sufficient setbacks to boundaries that would not result in an area of influence on adjacent lands which is demonstrated within

the submission plans. The proposal does not encroach on any underground utilities and therefore the proposal remains consistent with A1 above.

E5 Local Heritage Code – Not Applicable

The proposal does not contain any heritage issues and therefore this Code is not applicable to this application.

E6 Hazard Management Code – Not Applicable

The proposal site is not subject to coastal inundation, erosion or recession and is not located within a watercourse, wetland or stormwater disposal area and therefore this Code is not applicable to this application.

E7 Sign Code – Not Applicable

The proposal does not contain any signage as part of the application and therefore this Code is not applicable to this application.

E8 Telecommunication Code – Not Applicable

The proposal is for a subdivision and residential dwelling and does not contain any telecommunications infrastructure and therefore this Code is not applicable to this application.

E9 Traffic Generating Use and Parking Code

E9.5 Use Standards

E9.5.1 Provision for parking

Objective:

Provision is to be made for convenient, accessible, and usable vehicle parking to satisfy requirements for use or development without impact for use or development of other land or for the safety and operation of any road

Acceptable Solution – A1

Provision for parking must be –

- a) *the minimum number of on-site vehicle parking spaces must be in accordance with the applicable standard for the use class as shown in the Table to this Code;*

Discussion:

Lot 1 will retain its car parking arrangements and lot 2 has sufficient area to contain 2 car parking spaces for a residential dwelling remaining consistent with the Table to this Code.

E9.5.2 Provision for loading and unloading vehicles

Objective:

Provision is made for conveniently located and accessible areas for the loading and unloading of goods and materials and for the pick-up and set-down of passengers from vehicles

Acceptable Solution – A1

There must be provision within a site for –

- a) *on-site loading area in accordance with the requirement in the Table to this Code; and*
- b) *passenger vehicle pick-up and set-down facilities for business, commercial, educational and retail use at the rate of 1 space for every 50 parking spaces*

Discussion:

No requirement for on-site loading for a single dwelling in the Rural Living Zone.

E9.6.1 Design of vehicle parking and loading areas

Objective:

Vehicle circulation, loading, and parking areas–

- a) *protect the efficient operation and safety of the road from which access is provided;*
- b) *promote efficiency, convenience, safety, and security for vehicles and users; and*
- c) *provide an appropriate layout and adequate dimension to accommodate passenger or freight vehicle associated with use of the site*

Acceptable Solution – A1.1

All development must provide for the collection, drainage and disposal of stormwater; and

Acceptable Solution – A1.2

Other than for development for a single dwelling in the General Residential, Low Density Residential, Urban Mixed Use and Village zones, the layout of vehicle parking area, loading area, circulation aisle and manoeuvring area must –

- a) *Be in accordance with AS/NZS 2890.1 (2004) – Parking Facilities – Off Street Car Parking;*
- b) *Be in accordance with AS/NZS 2890.2 (2002) Parking Facilities – Off Street Commercial Vehicles;*
- c) *Be in accordance with AS/NZS 2890.3 1993) Parking Facilities – Bicycle Parking Facilities;*
- d) *Be in accordance with AS/NZS 2890.6 Parking Facilities – Off Street Parking for People with Disabilities;*
- e) *Each parking space must be separately accessed from the internal circulation aisle within the site;*
- f) *Provide for the forward movement and passing of all vehicles within the site other than if entering or leaving a loading or parking space; and*
- g) *Be formed and constructed with compacted sub-base and an all-weather surface.*

Discussion:

The proposal provides collection, drainage and disposal of stormwater satisfying A1.1.

The existing/proposed layout of parking and manoeuvring areas are intended to be in accordance with AS/NZS 2890.1 (2004) and each parking space can be accessed within the site. The proposal site provides forward movement and passing of vehicles which is contained within the site. The existing/proposed driveways are already/intended to be constructed in an all-weather surface satisfying A1.2 above.

Acceptable Solution – A2

Design and construction of an access strip and vehicle circulation, movement and standing areas for use or development on land within the Rural Living, Environmental Living, Open Space, Rural Resource, or Environmental Management zones must be in accordance with the principles and requirements for in the current edition of Unsealed Roads Manual – Guideline for Good Practice ARRB

Discussion:

The existing and proposed driveways are/are to be constructed in accordance with the relevant sections of the ARRB guidelines (chapters 1 to 11) satisfying A2 above.

E10 Water and Waterways Code – Not Applicable

The proposal is located approximately 95 metres away from the nearest water body to; exceeding the 30 metre requirement and therefore the Code is not applicable to this application.

Conclusion

This supporting documentation demonstrates that the proposal of a Proposed Subdivision, Dwelling and outbuilding supports and furthers the Planning Scheme aims and objectives, relevant Clauses and Schedules as set out for development within the Rural Living Zone.

Where the proposal does not comply with the Acceptable Solution (AS) it has been demonstrated that the Performance Criteria (PC) are satisfied and there is not an unreasonable loss of amenity as a consequence of this proposal. Therefore Council are requested to exercise its Discretionary powers in relation to this development.

With the above in mind, a planning permit for a Proposed Subdivision, Dwelling and Outbuilding at 183 Back Cam Road, Somerset is respectfully sought from the Planning Authority.





Bushfire Risk

Assessment Report & Certificates

for

Graham & Leslie Hodge

183 Back Cam Road

Date of Plan

22/06/2022

EnviroPlan Australia

Michael Wells

Bushfire Accreditation No: **BFP-128**

ABN: 28 650 042 436

71a Bass Highway, Somerset

PO Box 546 Somerset, TAS 7322

Email: admin@enviroplanaustralia.com.au

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Consultant Details

Mr. Micheal Wells GradDipUrbRegPlanBEnvDesDipBldg

Town Planner, Builder, Bushfire Assessor, Building Designer, Fire Engineer, (IFE) Forest Botanist (FPA)
Bushfire Accreditation No: **BFP-128**

Scope of Assessors Accreditation

Micheal Wells (**BFP-128**) is accredited by the Chief Officer of the Tasmania Fire Service under Section 60B of the *Fire Service Act 1979* for the following Scope of Works:

1. Certify a Bushfire Attack Level Assessment for **Building Work**
- 3A. Certify Acceptable Solutions for **Buildings or Extensions**
- 3B. Certify Acceptable Solutions for **Small Subdivisions** (less than 10 Lots or a single stage)
- 3C. Certify Acceptable Solutions for **Large Subdivisions** (10 lots or more or in multiple stages)

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Bushfires in Tasmania are an unpredictable natural phenomenon and preparing a Bushfire Hazard Management Plan increases your chances of defending your property and assists in the protection the people whom frequent it. This Fire Hazard Management Plan in no way guarantees immunity from a bushfire in or around your property or the effects thereof.


Any measures implemented based on the advice from *EnviroPlan Australia*, is offered as potential methods of reducing your properties risk of fire damage only and is not to be relied upon as a total solution. It in no way guarantees that any or all buildings on site will survive the effects of a bushfire nor does it guarantee the safety and security of any individuals whom frequent the property.

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Document Status

Revision No	Author	Signature	Date
1	M. Wells		1/11/2021
2	M Wells		22/06/2022

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE¹ UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:

183 Back Cam Road, Somerset, Tasmania 7322

Certificate of Title / PID:

CT: 105238 / 1 , PID: 7902963

2. Proposed Use or Development

Description of proposed Use and Development:

Proposed Subdivision and Dwelling

Applicable Planning Scheme:

Waratah-Wynyard Interim Planning Scheme 2013

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Proposed Dwelling & Subdivision	EnviroPlan	28/08/2020	

¹ This document is the approved form of certification for this purpose and must not be altered from its original form

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

<input type="checkbox"/>	E1.4 / C13.4 – Use or development exempt from this Code				
	<table><tr><th>Compliance test</th><th>Compliance Requirement</th></tr><tr><td><input type="checkbox"/> E1.4(a) / C13.4.1(a)</td><td>Insufficient increase in risk</td></tr></table>	Compliance test	Compliance Requirement	<input type="checkbox"/> E1.4(a) / C13.4.1(a)	Insufficient increase in risk
Compliance test	Compliance Requirement				
<input type="checkbox"/> E1.4(a) / C13.4.1(a)	Insufficient increase in risk				

<input type="checkbox"/>	E1.5.1 / C13.5.1 – Vulnerable Uses								
	<table><tr><th>Acceptable Solution</th><th>Compliance Requirement</th></tr><tr><td><input type="checkbox"/> E1.5.1 P1 / C13.5.1 P1</td><td><i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i></td></tr><tr><td><input type="checkbox"/> E1.5.1 A2 / C13.5.1 A2</td><td>Emergency management strategy</td></tr><tr><td><input type="checkbox"/> E1.5.1 A3 / C13.5.1 A2</td><td>Bushfire hazard management plan</td></tr></table>	Acceptable Solution	Compliance Requirement	<input type="checkbox"/> E1.5.1 P1 / C13.5.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>	<input type="checkbox"/> E1.5.1 A2 / C13.5.1 A2	Emergency management strategy	<input type="checkbox"/> E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan
Acceptable Solution	Compliance Requirement								
<input type="checkbox"/> E1.5.1 P1 / C13.5.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>								
<input type="checkbox"/> E1.5.1 A2 / C13.5.1 A2	Emergency management strategy								
<input type="checkbox"/> E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan								

<input type="checkbox"/>	E1.5.2 / C13.5.2 – Hazardous Uses								
	<table><tr><th>Acceptable Solution</th><th>Compliance Requirement</th></tr><tr><td><input type="checkbox"/> E1.5.2 P1 / C13.5.2 P1</td><td><i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i></td></tr><tr><td><input type="checkbox"/> E1.5.2 A2 / C13.5.2 A2</td><td>Emergency management strategy</td></tr><tr><td><input type="checkbox"/> E1.5.2 A3 / C13.5.2 A3</td><td>Bushfire hazard management plan</td></tr></table>	Acceptable Solution	Compliance Requirement	<input type="checkbox"/> E1.5.2 P1 / C13.5.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>	<input type="checkbox"/> E1.5.2 A2 / C13.5.2 A2	Emergency management strategy	<input type="checkbox"/> E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan
Acceptable Solution	Compliance Requirement								
<input type="checkbox"/> E1.5.2 P1 / C13.5.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>								
<input type="checkbox"/> E1.5.2 A2 / C13.5.2 A2	Emergency management strategy								
<input type="checkbox"/> E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan								

<input checked="" type="checkbox"/>	E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas										
	<table><tr><th>Acceptable Solution</th><th>Compliance Requirement</th></tr><tr><td><input type="checkbox"/> E1.6.1 P1 / C13.6.1 P1</td><td><i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i></td></tr><tr><td><input type="checkbox"/> E1.6.1 A1 (a) / C13.6.1 A1(a)</td><td>Insufficient increase in risk</td></tr><tr><td><input checked="" type="checkbox"/> E1.6.1 A1 (b) / C13.6.1 A1(b)</td><td>Provides BAL-19 for all lots (including any lot designated as 'balance')</td></tr><tr><td><input type="checkbox"/> E1.6.1 A1(c) / C13.6.1 A1(c)</td><td>Consent for Part 5 Agreement</td></tr></table>	Acceptable Solution	Compliance Requirement	<input type="checkbox"/> E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>	<input type="checkbox"/> E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk	<input checked="" type="checkbox"/> E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')	<input type="checkbox"/> E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement
Acceptable Solution	Compliance Requirement										
<input type="checkbox"/> E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>										
<input type="checkbox"/> E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk										
<input checked="" type="checkbox"/> E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')										
<input type="checkbox"/> E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement										

<input checked="" type="checkbox"/>	E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.2 P1 / C13.6.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables


<input type="checkbox"/>	E1.6.3 / C13.6.3 Subdivision: Provision of water supply for fire fighting purposes	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
<input type="checkbox"/>	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
<input type="checkbox"/>	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner			
Name:	Micheal Wells	Phone No:	03 6411 1931
Postal Address:	PO Box 546, Somerset TAS 7322	Email Address:	admin@enviropianaustralia.com.au
Accreditation No:	BFP – 128	Scope:	1, 3A, 3B & 3C

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

- ☐ Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or
- ☒ The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed: certifier			
Name:	Micheal Wells	Date:	22/06/2022
		Certificate Number:	220132 – 5
		(for Practitioner Use only)	

Section 2



The Land – Site

Title & Description

Phone Contact: 0474 656 216
Land Owners: Graham & Leslie Hodge
Owners Agent: EnviroPlan
Property Location: 183 Back Cam Road, Somerset Tasmania 7322
Property ID: 7902963
Certificate of Title: CT: 105238- 1
Lot Size: 11.1 ha (111000 m²)
Council: Waratah-Wynyard Council
Class of Building: 1a
Type of Building: Dwelling
Description of Work: Proposed Subdivision and Dwelling
Referenced Documents:

<i>Drawn By</i>	<i>Plan No</i>	<i>Revision No</i>	<i>Date</i>
EnviroPlan	220132 - A01 to A04		20/08/2020

Aerial Image of Site



Figure 1 – Location of land 183 Back Cam Road, Somerset

The 11.1 ha (111000 m²) property fronts onto Back Cam Road and is located on the eastern side of the road.

Existing Use and Development

The current use of land is residential use with a house and associated sheds located on the property.

Site Analysis

Topography

The land falls from South to North with a ridgeline intersecting the allotment to the eastern portion of the lot where the land falls to the north and south toward the river.

Access

The existing site access to the subject land is off Back Cam Road via a formed rural roads crossover and does not require further upgrades as part of this development.

In order to be compliant – all site accesses must be in accordance with AS/NZ 2890.1 - *Parking Facilities - Off-Street Car Parking* and in particular *Section 3 Access Facilities to Off-Street Parking Areas and Queuing Areas*.

Road Class Descriptions & Conclusion:

(AADT = Annual Average Daily Traffic Volume)

4A: Main Road (>150 AADT)

- All weather road predominately two lane and unsealed; can be sealed if economically justified;
- Operating speed of 50-80 km/h according to terrain; and
- Minimum carriage width of 7m.

4B: Minor Road (150-50 AADT)

- All weather two lane road formed and gravelled or single lane sealed road with gravel shoulders;
- Operating speed of 30-70 km/h according to terrain; and
- Minimum carriage width of 5.5m

4C: Minor Road (50 – 10 AADT)

- Substantially a single lane two way dry weather formed (natural materials) track/road;
- Operating speed of 20-40 km/h according to terrain; and
- Minimum carriage width of 4m.

The RTA Guidelines (Guide to Traffic Generating Developments) average daily residential dwelling rates for vehicle movements at **9.0** / dwelling with a weekday hourly rate of **0.85** / dwelling.

The road corridor width is 19 m with a formed construction of 8.5 m (including shoulders) supporting the 4b road construction.

The road is constructed to Municipal Standards for public access and is constructed to accommodate large vehicle volumes for safe vehicular passage. The road can easily accommodate the increase in AADT placed by the proposal and does not pose a detriment to the safe access/egress for occupants, fire or other emergency personnel.

Water Services

The following best describes to available services to the site and any mitigation measures required by the development:

- Reticulated water services are not located within the vicinity of the site and therefore bulk on-site water storage facilities are required for this proposal in accordance with the Schedule 1 of this Plan.
- Bulk on-site water storage facilities required for firefighting purposes should be suitably sized to ensure 10,000 litres of water is stored as a dedicated firefighting supply and held in reserve. Potable supplies must be in addition to this requirement.



Figure 3 – Reticulated Water Services within proximity of the land 163 Black Cam Road, Somerset (source: www.theLIST.tas.gov.au)

Surrounding Property Use

- Lands to the north are bushland;
- East bushland;
- South is are residential uses; and
- West are residential uses.

TasVeg Overlay

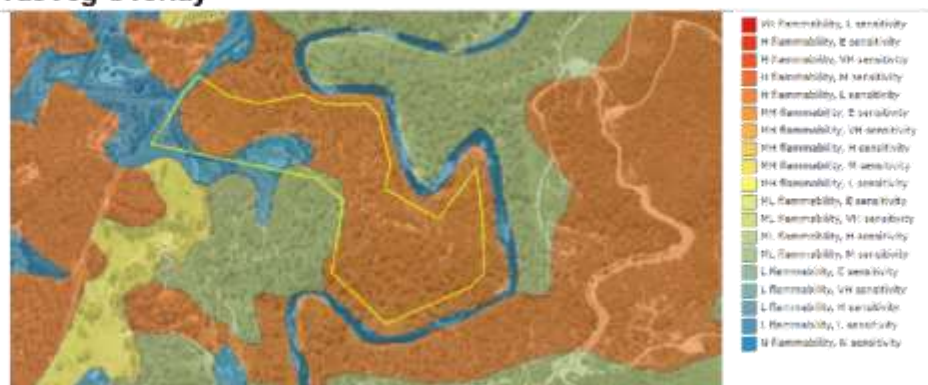


Figure 4 – TasVEG 4.0 Fire Attributes of land 163 Black Cam Road, Somerset (source: www.theLIST.tas.gov.au)

The 'TasVEG Fire Attributes' layer defines the surrounding vegetation as being:

Vegetation Group	Fire Sensitivity / Flammability
Dry Eucalypt Forest and Woodland	H Flammability, L Sensitivity
Agricultural, Urban and Exotic Vegetation	N Flammability, N Sensitivity
Wet Eucalypt Forest and Woodland	ML Flammability, H Sensitivity

The following vegetation table best describes the flora contained within the bushfire exposure:

Forest

Generalised Description of the types of vegetation:

Forest:	<i>Open tree canopy dominated by eucalypt species (typically >10m in height) with crowns that touch or overlap. Canopy allows most sunlight to penetrate supporting growth of a prominent understorey layer varying between hard-leaved shrubs to luxuriant soft leaved shrubs, ferns and herbs.</i>
Woodland:	<i>Dominated by an open to sparse layer of eucalypts with the crowns rarely touching. Typically 15-35m high (may be shorter at sub-alpine altitudes). Diverse ground cover of grasses and herbs. Shrubs are sparsely distributed. Usually found on flat to undulating ground.</i>
Tall Heath (Scrub):	<i>Shrubby vegetation greater than 2 metres tall. Principal plant species include banksias, spider flowers, wattles, legumes, eucalypts, tea-trees, paper barks, she oaks, grass trees, cord rushes and sedges. Grasses are scarce. Not found in arid and semi arid locations. Includes Hawkesbury Sandstone vegetation with scattered over-storey trees and predominantly healthy understorey and coastal heath. May include some mallee eucalypts in coastal locations.</i>
Short Heath (Open Shrub):	<i>Shrubby vegetation less than 2 metres in height. Often more open in canopy. Principal plant species include banksias, spider flowers, wattles, legumes, eucalypts, tea-trees, paper barks, she oaks, grass trees, cord rushes and sedges. Grasses are scarce. Not found in arid and semiarid locations.</i>
Rainforest:	<i>Closed and continuous complex tree canopy composed of relatively soft, horizontally-held leaves. Generally lacking in eucalypts. Understorey typically includes ferns and herbs. Vines often present in canopy or understorey. Occur mainly in areas that are reliably moist, mostly free of fire and have soils of moderate to high fertility. Typically coastal and escarpment locations.</i>
Grassland:	<i>Dominated by perennial grasses and the presence of broad-leaved herbs on flat topography. Lack of woody plants. Plants include grasses, daisies, legumes, geraniums, saltbushes and Copperburrs.</i>
Managed Land:	<i>Non-vegetated or reduced vegetation areas such as: actively grazed pastures, maintained urban yards, maintained lawns, crops, orchards, vineyards, commercial nurseries, playing fields, golf course fairways, cleared parks, non-vegetated areas, formed roads and footpaths including cleared verges, waterways, etc.</i>

Proposal

The developer/s, Graham & Leslie Hodge seeks to construct a Proposed Subdivision and Dwelling.

The proposal is a 2 lot subdivision of land with a dwelling and shed located on lot 1. Lot 2 contains a new dwelling and shed as part of this proposal.

Intended Purpose of Plan

The plan is intended to satisfy the provisions of the Building Act 2016, including transitional Arrangements Building Regulations 2014 (Part 1A) and National Construction Code 2019.

Purpose

The purpose of this bushfire assessment report is to identify the Bushfire Attack Level (BAL) in accordance with AS 3959-2009 & 2018 Construction of Buildings in Bushfire Prone Areas, and Guidelines for Development in Bushfire Prone Areas of Tasmania 2005.

The BAL will enable the appropriate construction method and applicable construction requirements for the proposed building works to be designed in accordance with AS 3959-2009 & 2018, Part 3.7.4, 3.7.4.1 and 3.7.4.2 of the National Construction Code Amendment 2013, Building Act 2016, including transitional Arrangements Building Regulations 2014 (Part 1A) and National Construction Code 2019 and the Guidelines for Development in Bushfire Prone Areas of Tasmania.

General Information - Fire Danger Index:

The Fire Danger Index (FDI) is a measure of the probability of a bushfire starting, its rate of spread, intensity and the difficulty of extinguishment according to combinations of temperature, relative humidity, wind speed and available fuels, all of which is influenced by daily rainfall events and the time elapsed between such rainfall events.

The FDI in Tasmania is 50.



Applicable Standard to which the plan relates

E1.6.1 / C13.6.1 Subdivision – Provision of Hazard Management Areas

The proposal provides for sufficient separation from building areas and bushfire-prone vegetation which reduces heat transfer and ember attack and provides protection for all lots contained within the proposal.

Objective <i>Subdivision provides for hazard management areas that:</i> <ul style="list-style-type: none"> a) <i>facilitate an integrated approach between subdivision and subsequent building on a lot;</i> b) <i>provide for sufficient separation of building areas from bushfire-prone vegetation to reduce the radiant heat levels, direct flame attack and ember attack at the building area; and</i> c) <i>provide protection for lots at any stage of a staged subdivision.</i> 	
Acceptable Solutions A1 <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of hazard management areas as part of a subdivision; or (b) The proposed plan of subdivision: <ul style="list-style-type: none"> i. shows all lots that are within or partly within a bushfire-prone area, including those developed at each stage of a staged subdivisions; ii. shows the building area for each lot; iii. shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of Australian Standard AS 3959 – 2009 Construction of Buildings in Bushfire Prone Areas; and iv. is accompanied by a bushfire hazard management plan for each individual lot, certified by the TFS or accredited person, showing hazard management areas greater than the separation distances required for BAL 19 in Table 2.4.4 of Australian Standard AS 3959 – 2009 Construction of Buildings in Bushfire Prone Areas; and (c) If hazard management areas are to be located on land external to the proposed subdivision the application is accompanied by the written consent of the owner of that land to enter into an agreement under section 71 of the Act that will be registered on the title of the neighbouring property providing for the affected land to be managed in accordance with the bushfire hazard management plan. 	Performance Criteria P1 <p>A proposed plan of subdivision shows adequate hazard management areas in relation to the building areas shown on lots within a bushfire-prone area, having regard to:</p> <ul style="list-style-type: none"> (a) the dimensions of hazard management areas; (b) a bushfire risk assessment of each lot at any stage of staged subdivision; (c) the nature of the bushfire-prone vegetation including the type, fuel load, structure and flammability; (d) the topography, including site slope; (e) any other potential forms of fuel and ignition sources; (f) separation distances from the bushfire-prone vegetation not unreasonably restricting subsequent development (g) an instrument that will facilitate management of fuels located on land external to the subdivision; and (h) any advice from the TFS.
Performance: Discussion: Complies with A1(b) above.	Acceptable Solution Satisfied

E1.6.2 / C13.6.2 Subdivision: Public and Fire Fighting Access

Objective Access roads to, and the layout of roads, tracks and trails, in a subdivision: <ul style="list-style-type: none"> (a) allow safe access and egress for residents, firefighters and emergency service personnel; (b) provide access to the bushfire-prone vegetation that enables both property to be defended when under bushfire attack and for hazard management works to be undertaken; (c) are designed and constructed to allow for fire appliances to be manoeuvred; (d) provide access to water supplies for fire appliances; and (e) are designed to allow connectivity, and where needed, offering multiple evacuation points. 	
Acceptable Solutions A1 <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant specific measures for public access in the subdivision for the purposes of fire fighting; or (b) A proposed plan of subdivision showing the layout of roads, fire trails and the location of property access to building areas is included in a bushfire hazard management plan that: <ul style="list-style-type: none"> i. Demonstrates proposed roads will comply with Table E1, proposed private accesses will comply with Table E2 and proposed fire trails will comply with Table E3; and ii. Is certified by the TFS or an accredited person. 	Performance Criteria P1 <p>A proposed plan of subdivision shows access and egress for residents, fire-fighting vehicles and emergency service personnel to enable protection from bushfires having regard to:</p> <ul style="list-style-type: none"> (a) appropriate design measures, including: <ul style="list-style-type: none"> i. two way traffic; ii. all weather surfaces; iii. height and width of any vegetation clearances; iv. load capacity; v. provision of passing bays; vi. traffic control devices; vii. geometry, alignment and slope of roads, tracks and trails; viii. use of through roads to provide for connectivity; ix. limits on the length of cul-de-sacs and dead-end roads; x. provision of turning areas; xi. provision for parking areas; xii. perimeter access; and xiii. fire trails; (b) the provision of access to: <ul style="list-style-type: none"> i. bushfire-prone vegetation to permit the undertaking of hazard management works; and ii. fire fighting water supplies; and (c) any advice from the TFS.
Performance: Discussion: Complies with A1(b) above and Table E2.	Acceptable Solution Satisfied

Table E1 / C13.1 – Standards for Roads

Element	Requirement
Roads	<p>Unless the development standards in the zone require a higher standard, the following apply:</p> <ul style="list-style-type: none"> a) Two-wheel drive, all-weather construction; b) Load capacity of at least 20 tonnes, including for bridges and culverts; c) Minimum carriageway width is 7 metres for a through road, or 5.5 metres for a dead-end or cul-de-sac road; d) Minimum vertical clearance of 4 metres; e) Minimum horizontal clearance of 2 metres from the edge of the carriageway; f) Cross falls of less than 3 degrees (1:20 or 5%); g) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; h) Curves have a minimum inner radius of 10 metres; i) Dead-end or cul-de-sac roads are not more than 200 metres in length unless the carriageway is 7 metres in width; j) Dead-end or cul-de-sac roads have a turning circle with a minimum 12 metres outer radius; and k) Carriageways less than 7 metres wide have 'No Parking' zones on one side, indicated by a road sign that complies with AS1743-2001 Road signs-Specifications.

Table E2 / C13.2 – Standards for Property Access

Element	Requirement
A Property access length is less than 30 metres; or access is not required for a fire appliance to access a water connection point	There are no specified design and construction requirements.
B Property access length is 30 metres or greater; or access for a fire appliance to a water connection point.	The following design and construction requirements apply to property access: <ul style="list-style-type: none"> 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 degrees (1:20 or 5%); g) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; h) Curves with a minimum inner radius of 10 metres; i) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and j) Terminate with a turning area for fire appliances provided by one of the following: <ul style="list-style-type: none"> i. A turning circle with a minimum inner radius of 10 metres; or ii. A property access encircling the building; or iii. A hammerhead 'T' or 'Y' turning head 4 metres wide and 8 metres long
C Property access length is 200 metres or greater.	The following design and construction requirements apply to property access: <ul style="list-style-type: none"> a) The Requirements for B above; and b) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.
D Property access length is greater than 30 metres, and access is provided to 3 or more properties.	The following design and construction requirements apply to property access: <ul style="list-style-type: none"> a) Complies with Requirements for B above; and b) Passing bays of 2 metres additional carriageway width and 20 metres length must be provided every 100 metres.

Table E3 / C13.3 – Standards for Fire Trails

Element	Requirement
A All Fire Trails	The following design and construction requirements apply: <ul style="list-style-type: none"> a) All-weather, 4-wheel drive 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 2 metres from the edge of the carriageway; f) Cross falls of less than 3 degrees (1:20 or 5%); g) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; h) Curves with a minimum inner radius of 10 metres; i) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed fire trails, and 10 degrees (1:5.5 or 18%) for unsealed fire trails; j) Gates if installed at fire trail entry, have a minimum width of 3.6 metres, and if locked, keys are provided to TFS; and k) Terminate with a turning area for fire appliances provided by one of the following: <ul style="list-style-type: none"> i. A turning circle with a minimum radius of 10 metres; and ii. A hammerhead 'T' or 'Y' turning head 4 metres wide and 8 metres long.
B Fire trail length is 200 metres or greater.	The following design and construction requirements apply: <ul style="list-style-type: none"> a) The requirements for A above; and

	b) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.
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E1.6.3 / C13.6.3 Subdivision – Provision of Water Supply for Fire Fighting Purposes

Objective Adequate, accessible and reliable water supply for the purposes of fire fighting can be demonstrated at the subdivision stage and allow for the protection of life and property associated with the subsequent use and development of bushfire-prone areas	
Acceptable Solutions A1 In areas serviced with reticulated water by the water corporation: (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of a water supply for fire fighting purposes; (b) A proposed plan of subdivision showing the layout of fire hydrants, and building areas, is included in a bushfire hazard management plan approved by the TFS or accredited person as being compliant with Table E4; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.	Performance Criteria P1 No Performance Criteria
Performance:	Not Applicable
Discussion: The proposal is not in a reticulated area and therefore the provision is not applicable.	
Acceptable Solutions A2 In areas that are not serviced by reticulated water by the water corporation: (a) The TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant provision of a water supply for firefighting purposes; or (b) The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that static water supply, dedicated to fire fighting, will be provided and located compliant with Table E5; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for firefighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.	Performance Criteria P2 No Performance Criteria
Performance:	Acceptable Solution Satisfied
Discussion: Complies with A1 (b) above and Table E5.	

Table E4 / C13.4 – Reticulated Water Supply for Fire Fighting

Element	Requirement
A Distance between	The following requirements apply:

<i>building area to be protected and water supply</i>	<ul style="list-style-type: none"> a) <i>The building area to be protected must be located within 120 metres of a fire hydrant; and</i> b) <i>The distance must be measured as a hose lay, between the water connection point and the furthest part of the building area.</i>
B <i>Design criteria for fire hydrants</i>	<p><i>The following requirements apply:</i></p> <ul style="list-style-type: none"> a) <i>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 2nd Edition; and</i> b) <i>Fire hydrants are not installed in parking areas.</i>
C <i>Hardstand</i>	<p><i>A hardstand area for fire appliances must be provided:</i></p> <ul style="list-style-type: none"> a) <i>No more than 3 metres from the hydrant, measured as a hose lay;</i> b) <i>No closer than 6 metres from the building area to be protected;</i> c) <i>With a minimum width of 3 metres constructed to the same standard as the carriageway; and</i> d) <i>Connected to the property access by a carriageway equivalent to the standard of the property access.</i>

Table E5 / C13.5 – Static Water Supply for Fire Fighting

Element	Requirement
A <i>Distance between building area to be protected and water supply</i>	<p><i>The following requirements apply:</i></p> <ul style="list-style-type: none"> a) <i>The building area to be protected must be located within 90 metres of the water connection point of a static water supply; and</i> b) <i>The distance must be measured as a hose lay, between the water connection point and the furthest part of the building area.</i>
B <i>Static Water Supplies</i>	<p><i>A static water supply:</i></p> <ul style="list-style-type: none"> a) <i>May have a remotely located offtake connected to the static water supply;</i> b) <i>May be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;</i> c) <i>Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;</i> d) <i>Must be metal, concrete or lagged by non-combustible materials if above ground; and</i> e) <i>If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by:</i> <ul style="list-style-type: none"> i. <i>Metal;</i> ii. <i>Non-combustible material; or</i> iii. <i>Fibre-cement a minimum of 6mm thickness.</i>
C <i>Fittings, pipework and accessories (including stands and tank supports)</i>	<p><i>Fittings and pipework associated with a water connection point for a static water supply must:</i></p> <ul style="list-style-type: none"> a) <i>Have a minimum nominal internal diameter of 50mm;</i> b) <i>Be fitted with a valve with a minimum nominal internal diameter of 50mm;</i> c) <i>Be metal or lagged by non-combustible materials if above ground;</i> d) <i>Where buried, have a minimum depth of 300mm (compliant with AS/NZS 3500.1-2003 Plumbing and Drainage, Part 1 Water Services Clause 5.23);</i> e) <i>Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment;</i> f) <i>Ensure the coupling is accessible and available for connection at all times;</i> g) <i>Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length);</i> h) <i>Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and</i> i) <i>Where a remote offtake is installed, ensure the offtake is in a position that is:</i> <ul style="list-style-type: none"> i. <i>Visible;</i> ii. <i>Accessible to allow connection by firefighting equipment;</i> iii. <i>At a working height of 450 – 600mm above ground level; and</i> iv. <i>Protected from possible damage, including damage by vehicles.</i>

D Signage for static water connections	<p>The firefighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:</p> <ul style="list-style-type: none"> a) Comply with water tank signage requirements within Australian Standard AS 2304-2011 Water storage tanks for fire protection systems; or b) Comply with the Tasmania Fire Service Water Supply Guideline published by the Tasmania Fire Service.
E Hardstand	<p>A hardstand area for fire appliances must be:</p> <ul style="list-style-type: none"> a) No more than 3 metres from the firefighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); b) No closer than 6 metres from the building area to be protected c) With a minimum width of 3 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.



EnviroPlan Australia
Micheal Wells
Bushfire Accreditation No: **BFP-128**

Section 3

Bushfire Attack Level (BAL) Assessment

Property Address: 183 Back Cam Road, Somerset, Tasmania 7322
Municipality: Waratah-Wynyard
Date of Assessment: 22/06/2022

Type of Work

Building Class Adopted: Not Applicable
Proposal Description: Proposed Subdivision and Dwelling

Fire Danger Index

FDI Adopted: 50

Vegetation Type

Classification Adopted: **Forest**

BAL Assessment BAL Determination Sheet – Lot 1

EnviroPlan Australia
Micheal Wells
Bushfire Accreditation No: BFP-128
Scope of Accreditation: 1, 3A, 3B & 3C
Parent Title - PID: 7902963 CT: 105238 / 1



Classification for each side of the Site

Vegetation Class	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>	Exclusions (where applicable)
Group A - Forest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Group B - Woodland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group C - Shrubland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group D - Scrub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group E - Mallee/Mulga	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Group F - Rainforest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group G (FDI 50) - Grassland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group H - Managed Land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Vegetation Proximity

Distance to classified vegetation	Show distance in metres	Required	N	55	S	31	E	51	W	40
Existing	N	0	S	0	E	0	W	0		

Closest Exposure: 31 metres

Note: If there is no classification vegetation within 100m of the site then the BAL is LOW for that part of the site.

Land Slope

	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>
Slope under the classified vegetation				
Upslope				
Upslope/0°	<input type="checkbox"/>	Upslope/0° <input checked="" type="checkbox"/>	Upslope/0° <input type="checkbox"/>	Upslope/0° <input type="checkbox"/>
Downslope				
>0 to 5°	<input type="checkbox"/>	>0 to 5° <input type="checkbox"/>	>0 to 5° <input type="checkbox"/>	>0 to 5° <input type="checkbox"/>
>5 to 10°	<input type="checkbox"/>	>5 to 10° <input type="checkbox"/>	>5 to 10° <input type="checkbox"/>	>5 to 10° <input type="checkbox"/>
>10 to 15°	<input type="checkbox"/>	>10 to 15° <input type="checkbox"/>	>10 to 15° <input type="checkbox"/>	>10 to 15° <input type="checkbox"/>
>15 to 20°	<input checked="" type="checkbox"/>	>15 to 20° <input type="checkbox"/>	>15 to 20° <input type="checkbox"/>	>15 to 20° <input type="checkbox"/>
BAL value for each side of site	19	19	19	19

Site BAL Assessment

BAL classification adopted for site is: BAL - 19

Note 1: Site BAL is adopted from the highest BAL rating on any single exposure.

Note 2: BAL - LOW, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 & BAL - FZ (Flame Zone)

BAL Assessment

BAL Determination Sheet - Lot 2

EnviroPlan Australia

Micheal Wells

Bushfire Accreditation No: BFP-128

Scope of Accreditation: 1, 3A, 3B & 3C

Parent Title - PID: 7902963 CT: 105238 / 1



Classification for each side of the Site

Vegetation Class	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>	Exclusions (where applicable)
Group A - Forest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Group B - Woodland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group C - Shrubland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group D - Scrub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group E - Mallee/Mulga	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Group F - Rainforest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group G (FDI 50) - Grassland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group H - Managed Land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Vegetation Proximity

Distance to classified vegetation	Show distance in metres	Required	N	35	S	39	E	25	W	28
Existing		N	0	S	0	E	0	W	0	

Closest Exposure: 25 metres

Note: If there is no classification vegetation within 100m of the site then the BAL is LOW for that part of the site.

Land Slope

	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>
Slope under the classified vegetation	Upslope			
	Upslope/0°	<input type="checkbox"/>	Upslope/0°	<input checked="" type="checkbox"/>
	Downslope			
	>0 to 5°	<input checked="" type="checkbox"/>	>0 to 5°	<input type="checkbox"/>
	>5 to 10°	<input type="checkbox"/>	>5 to 10°	<input type="checkbox"/>
	>10 to 15°	<input type="checkbox"/>	>10 to 15°	<input type="checkbox"/>
BAL value for each side of site	>15 to 20°	<input type="checkbox"/>	>15 to 20°	<input type="checkbox"/>
	19	12.5	19	19

Site BAL Assessment

BAL classification adopted for site is: BAL - 19

Note 1: Site BAL is adopted from the highest BAL rating on any single exposure.

Note 2: BAL - LOW, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 & BAL - FZ (Flame Zone).

Section 4



Bushfire Hazard Management Plan

Acceptable Solutions



Note: Specifications must be read in conjunction with the Bushfire Hazard Management Plan that accompanies this Bushfire Risk Report

GENERAL

This plan is to be read in conjunction with the bushfire risk assessment report. Ensure that all contractors and consultants are provided with a full copy of this plan. All services are to be located on site by contractors prior to commencement of works. Notify the Council Authorities and Bushfire Risk Assessor if any variation in Building Layout or Classified Vegetation occurs.

CLASSIFICATION

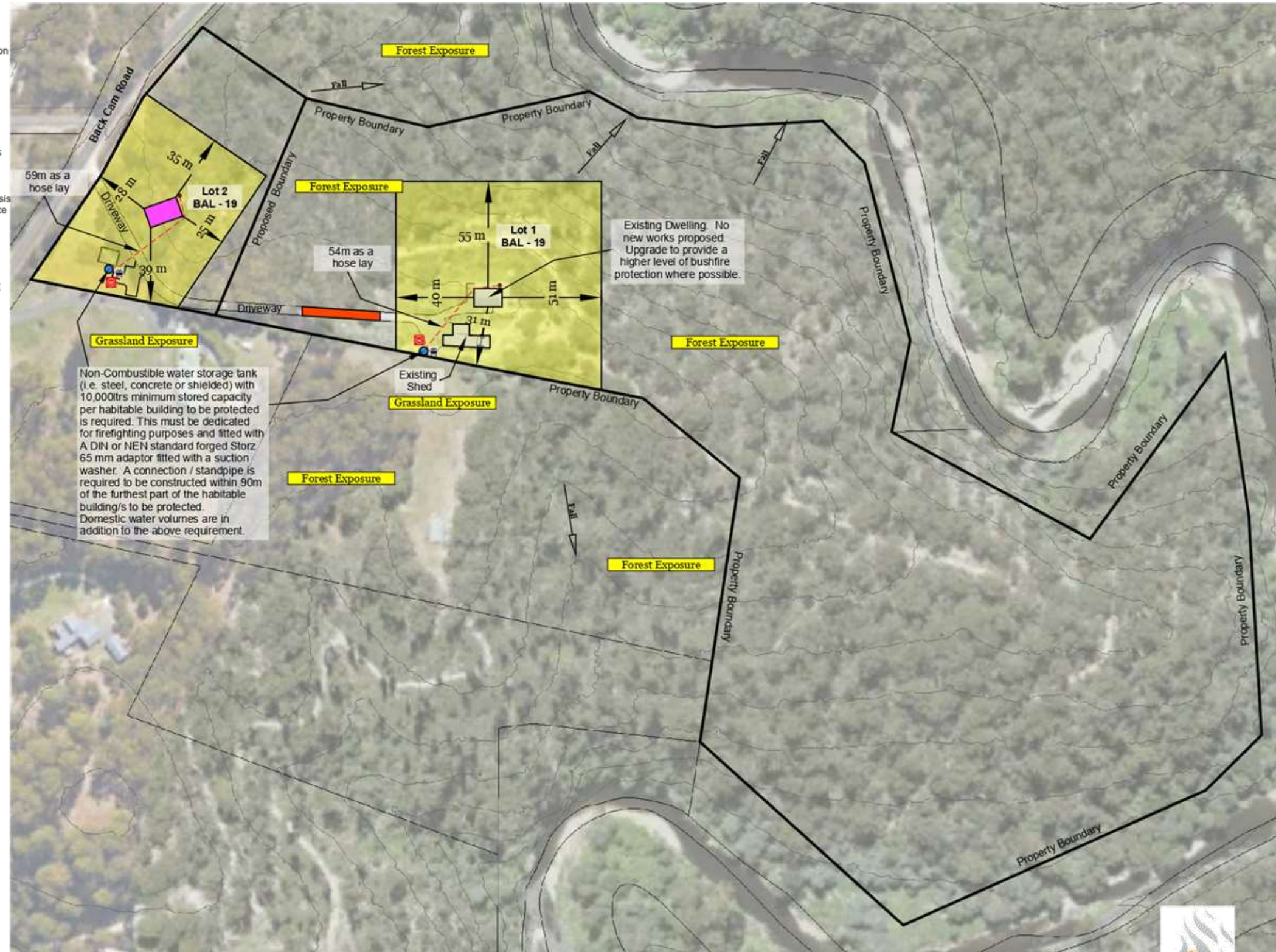
This development has BAL separation distances determined in accordance with Method 1 of Section 2.2 of AS3959:2009 & 2018 Construction of Buildings in Bushfire-Prone Areas. Separation distances between the building area and the Classified Vegetation are appropriate and in accordance with the requirements of Table 4.4(d)(1b) of the Directors Determination for Building in Bushfire-Prone Areas.

SPECIFICATIONS TO BE FOLLOWED

The Specifications featured as an annexure to this Plan form the basis of how to construct, manage and maintain the property in accordance with this Plan.

NOTE:

All works required by this Bushfire Plan must be completed prior to the Sealing of the Final Plan of Survey



Non-Combustible water storage tank (i.e. steel, concrete or shielded) with 10,000ltrs minimum stored capacity per habitable building to be protected is required. This must be dedicated for firefighting purposes and fitted with A DIN or NEN standard forged Storz 65 mm adaptor fitted with a suction washer. A connection / standpipe is required to be constructed within 90m of the furthest part of the habitable building/s to be protected. Domestic water volumes are in addition to the above requirement.

Certified Plan
**BAL-As
Shown**

Michael Wells
Scope: 1, 3A, 3B & 3C
BFP-128

EnviroPlan Office - 71a Bass Highway, Somerset TAS 7322 - PO Box 546, Somerset - E: admin@enviropianastralia.com.au - P: 6411 1931

CLIENT
Ashley O'Shea & Tabitha Rose Hodge
PROJECT Address
183 Back Cam Road, Somerset

PID:
7902963
CT:
105238/1

DRAWN BY
M Wells
SCALE @ A3
1: 2000
ISSUE Date
22/06/2020 (Rev 2)

DESIGNERS DESCRIPTION:
EnviroPlan
DESIGNERS REFERENCE NUMBERS:
220132

KEY INDEX - BULK WATER STORAGE REQUIREMENTS

HMA	Existing Building	Water Main	Remote Off-Take	Hard Stand Area
Building Area	Fire Hydrant	Water Tank	Passing Bay	Water Sign

Hazard Management Area (marked yellow) to be in accordance with specifications pages. Separation distances as shown. Maintain HMA in a minimum fuel condition at all times with regular maintenance from September through to March each calendar year

Demonstration of compliance for the purposes of the Bushfire Areas Code

DESCRIPTION
Bushfire Hazard Management Plan



B0.1

GENERAL

This plan is to be read in conjunction with the bushfire risk assessment report. Ensure that all contractors and consultants are provided with a full copy of this plan. All services are to be located on site by contractors prior to commencement of works. Notify the Council Authorities and Bushfire Risk Assessor if any variation in Building Layout or Classified Vegetation occurs.

CLASSIFICATION

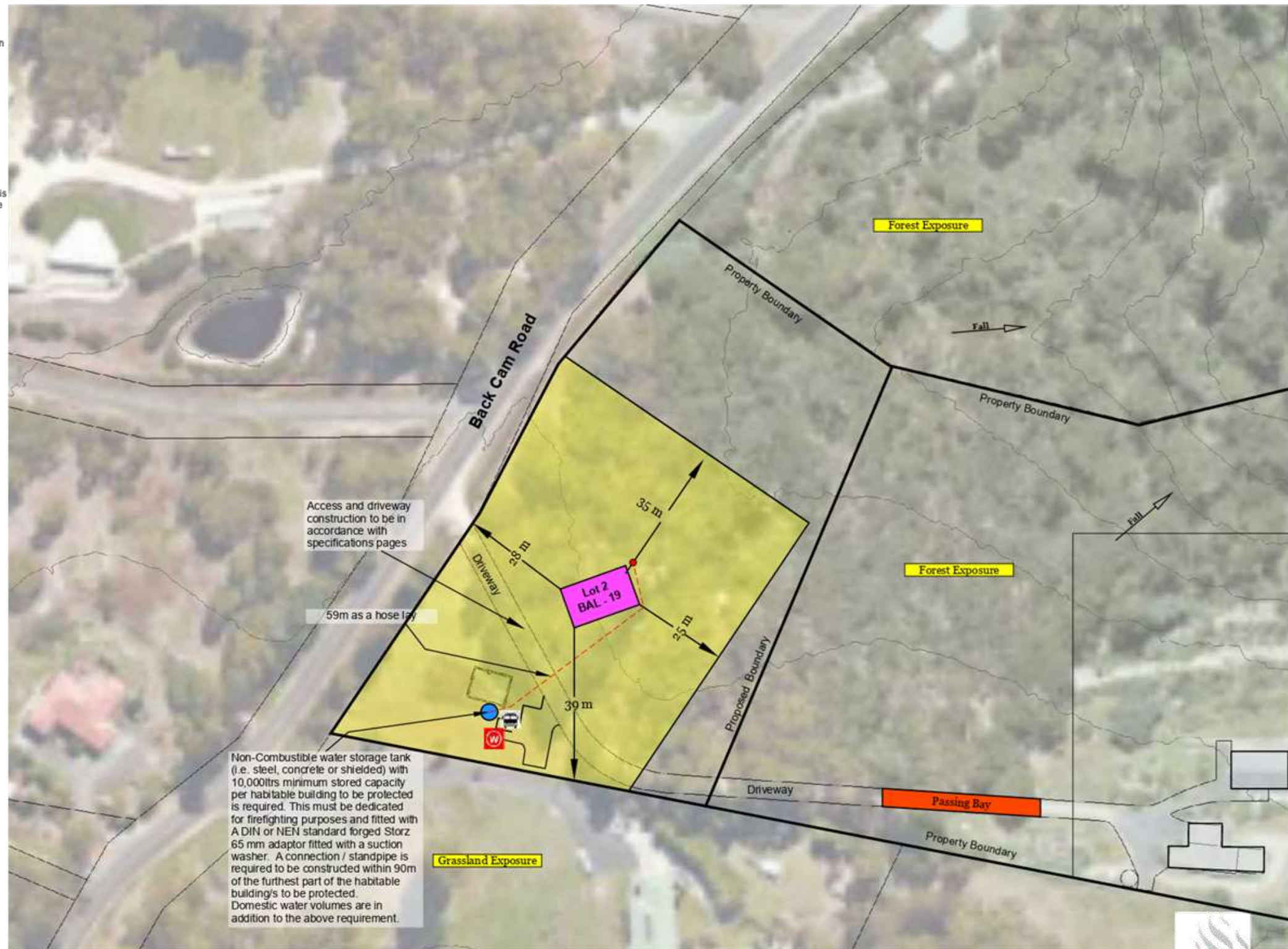
This development has BAL separation distances determined in accordance with Method 1 of Section 2.2 of AS3959:2009 & 2018 Construction of Buildings in Bushfire-Prone Areas. Separation distances between the building area and the Classified Vegetation are appropriate and in accordance with the requirements of Table 4.4(d)(1b) of the Directors Determination for Building in Bushfire-Prone Areas.

SPECIFICATIONS TO BE FOLLOWED

The Specifications featured as an annexure to this Plan form the basis of how to construct, manage and maintain the property in accordance with this Plan.

NOTE:

All works required by this Bushfire Plan must be completed prior to the Sealing of the Final Plan of Survey



Certified Plan
**BAL-As
Shown**

Michael Wells
Scope: 1, 3A, 3B & 3C
BFP-128

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KEY INDEX - BULK WATER STORAGE REQUIREMENTS

HMA	Existing Building	Water Main	Remote Off-Take	Hard Stand Area
Building Area	Fire Hydrant	Water Tank	Passing Bay	Water Sign

Hazard Management Area (marked yellow) to be in accordance with specifications pages. Separation distances as shown. Maintain HMA in a minimum fuel condition at all times with regular maintenance from September through to March each calendar year

DESCRIPTION
Bushfire Hazard Management Plan



B0.2

GENERAL

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CLASSIFICATION

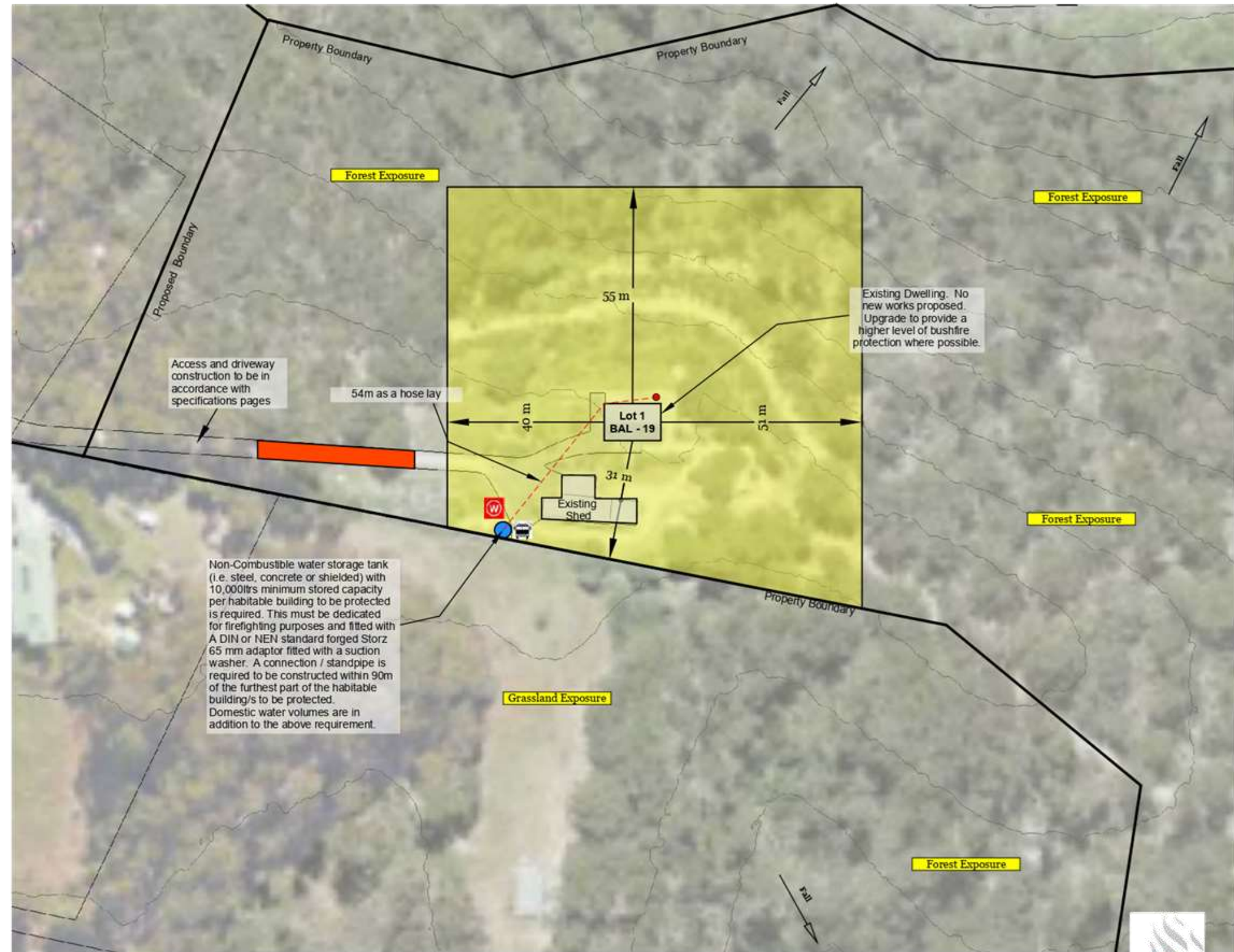
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SPECIFICATIONS TO BE FOLLOWED

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Certified Plan
**BAL-As
Shown**

Michael Wells
Scope: 1, 3A, 3B & 3C
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KEY INDEX - BULK WATER STORAGE REQUIREMENTS

HMA	Existing Building	Water Main	Remote Off-Take	Hard Stand Area
Building Area	Fire Hydrant	Water Tank	Passing Bay	Water Sign

DESCRIPTION
Bushfire Hazard Management Plan

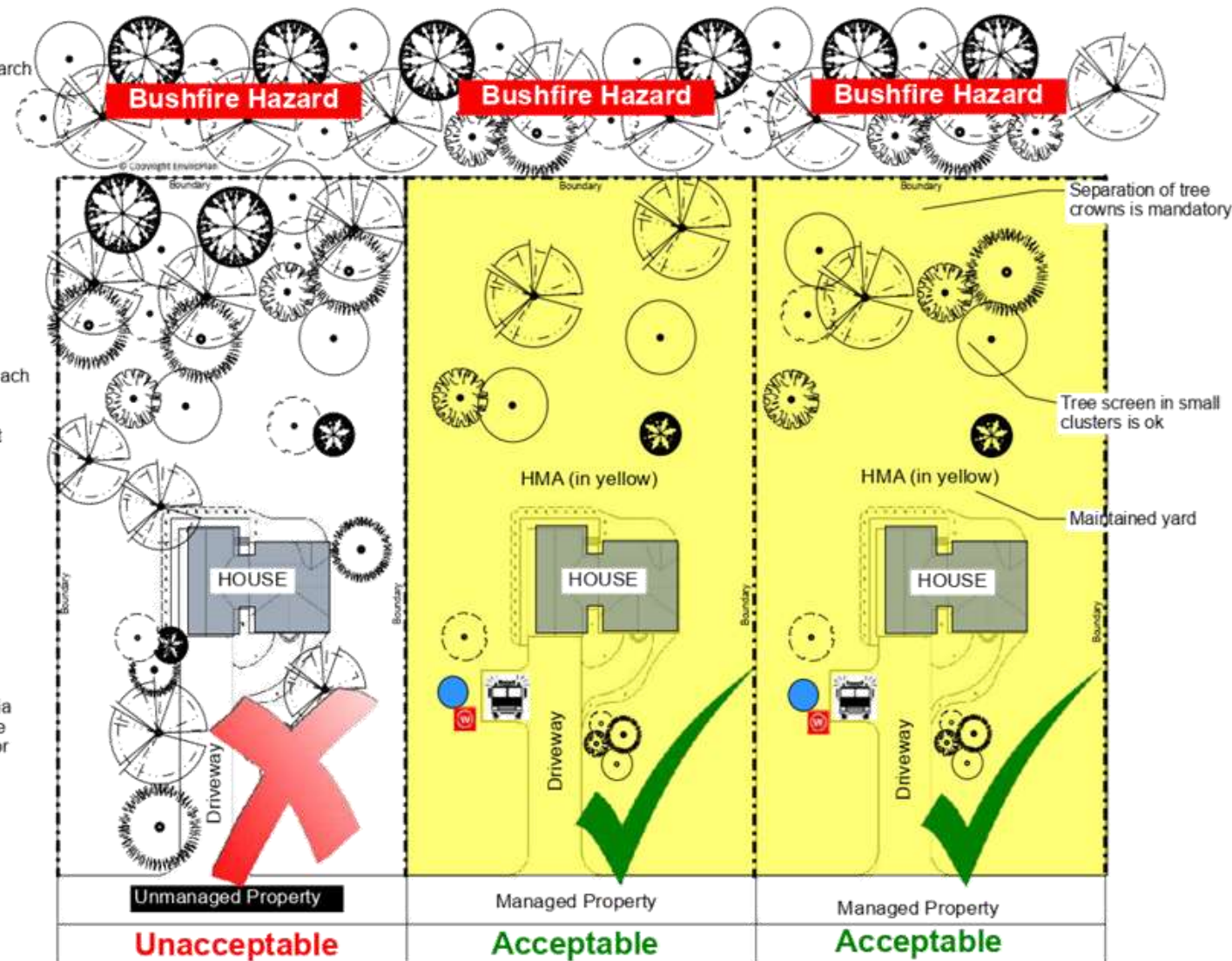


B0.3

Specifications - General for Hazard Management Areas (HMA)

The following Specifications Pages detail works required to achieve compliances to the Bushfire Prone Areas requirements for Planning and Building Permits within the State of Tasmania and may differ to existing site conditions. Modifications to existing site conditions will be required in order to achieve compliance to any habitable buildings featured on the proposal plans.

- A Hazard Management Area (HMA) must be established around the habitable structure/s to be protected in accordance with the distances specified on B0.1 of this plan.
- Lawns within the HMA must be well maintained during the fire season from September through to March and kept as 'short cropped'.
- Paths and driveways must be constructed of non-combustible materials.
- Dams, uncovered water storages, orchards, vegetable gardens, waste water systems and tanks etc. should be located on the fire prone site of the proposed structure.
- Only fire retardant plants of the low flammability type (fire resisting garden plants - TFS) should be planted in the HMA.
- No vegetation must be able to fall onto the proposed structure.
- The owner/s must maintain tree crowns within the HMA to have a horizontal separation of 5m from each crown.
- Trees of significant establishment should be retained so as to create a screen to protect from radiant heat transfer and ember attack.
- The HMA must be located in accordance with the provisions of this plan.
- It is the responsibility of the land owner to maintain the landscaping in accordance with this Bushfire Hazard Management Plan.
- All paths and pedestrian areas within 1m of any habitable structure on the subject site must be constructed of non-combustible materials (i.e. stone, paving, concrete, pebbles etc).
- Vegetation along pathways should be of a low flammability type and in accordance with the Tasmania Fire Service's brochure - Fire Retardant Garden Plants. Plants that produce a lot of debris should be avoided. Trees and shrubs that retain dead material in branches, or which shed long strips of bark, or rough fibrous bark, or large quantities of leaves should be avoided.
- Vines on walls or tree canopies over roofed areas should be avoided.
- Timber, woodchip and flammable mulches cannot be used and brush and timber fencing should be avoided.
- Total shrub cover should be kept to a maximum of 20% of the available area.
- Clear space from any habitable structures of at least 4 times the mature height of any shrubs planted.
- Shrubs must not be planted in cluster forms or dumps within the HMA.
- Remove ground level fuels and trim the bottom of tree canopies to at least a height of 2m from ground level.
- Minimise ground level fuels wherever possible.



SPECIFICATIONS PAGE



Annexure
B0.4

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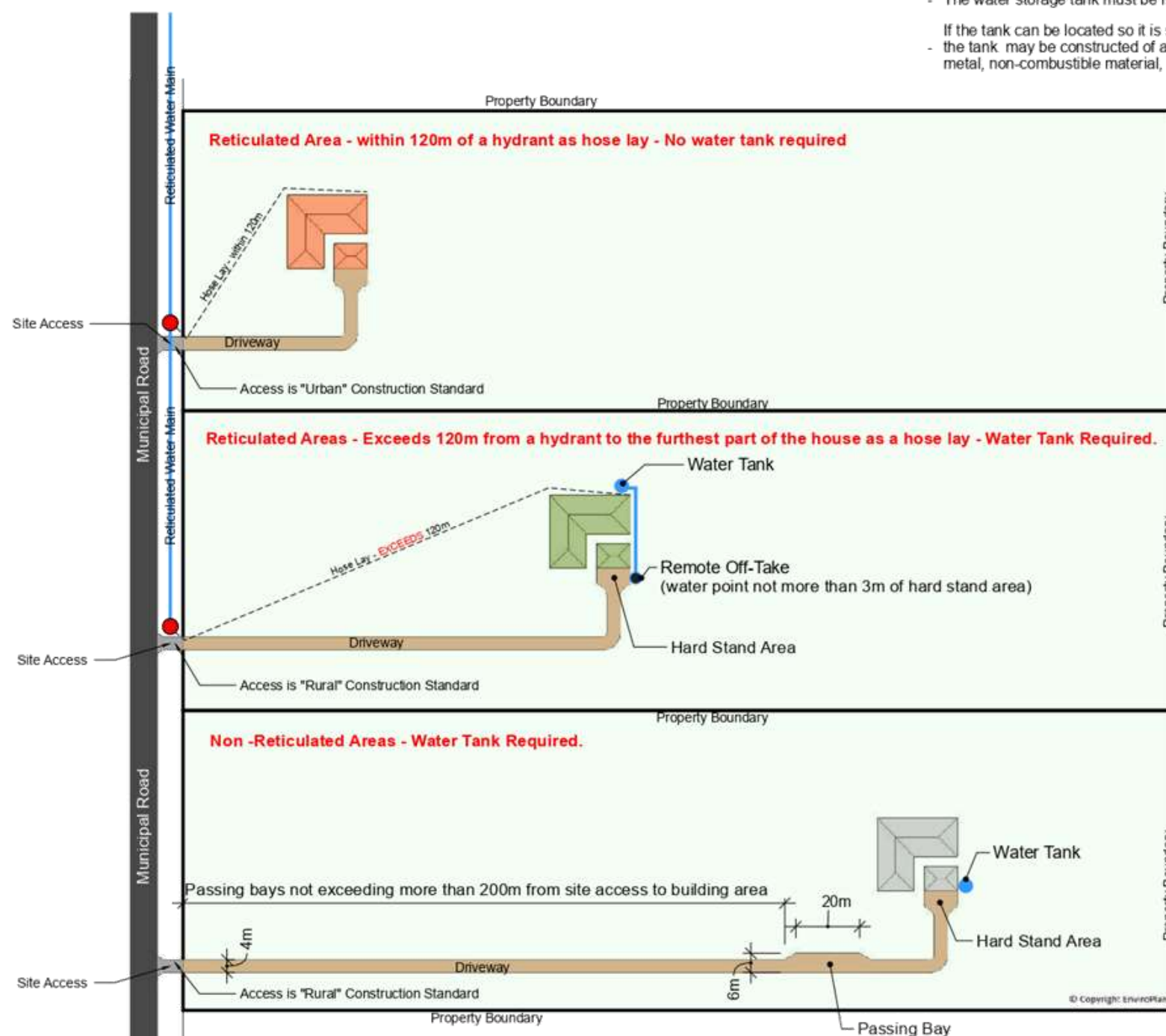
Water Supply & Access Details

Specifications - Static Water Supply - Distance to Building Area

- A static water connection point must be located within 90m of the building area
- The distance between the static water connection and the furthest part of the habitable building must be measured as a hose lay and must not exceed 120m.

Specifications - Static Water Supplies

- The bulk water supply (dam, tank, pool etc) required by this development may have a remotely located off-take that is connected to the static water supply.
- The water supply can be used for a combination use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times.
- The static water supply must be a minimum of 10,000 litres per habitable building to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems - domestic supply is in addition to this amount.
- The water storage tank must be metal, concrete or lagged by non-combustible materials if above ground.
- If the tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009 / 2018; the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by metal, non-combustible material, or fibre-cement sheet of a minimum of 6mm thickness.



Example Lot 1 - Bushfire Prone Area

- Hazard Management Area is required (not shown here)
- BAL rating applied to dwelling



Example Lot 2 - Bushfire Prone Area

Requires additional works

- Hazard Management Area is required (not shown here)
- BAL rating applied to dwelling
- Bulk water storages are required
- Can position tank elsewhere (conditions apply)
- Can use a remote off-take (conditions apply)



Example Lot 3 - Bushfire Prone Area

Requires additional works

- Hazard Management Area is required (not shown here)
- BAL rating applied to dwelling
- Bulk water storages are required
- Can position tank elsewhere (conditions apply)
- Can use a remote off-take (conditions apply)
- Requires passing bay/s if very long driveway

NOTE: Multiple passing bays may be required

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● Fire Hydrant ● Remote Off-Take — Water Main

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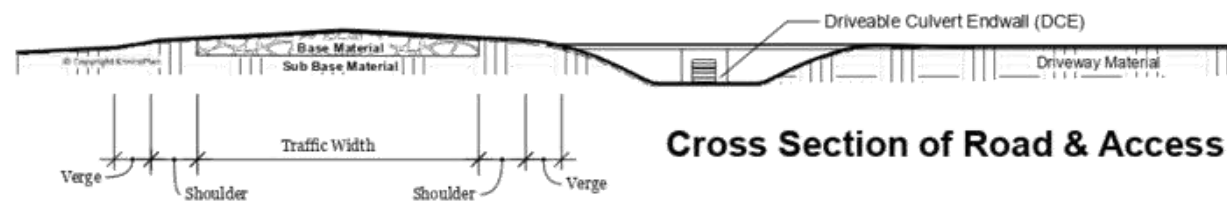
Annexure
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SPECIFICATIONS PAGE

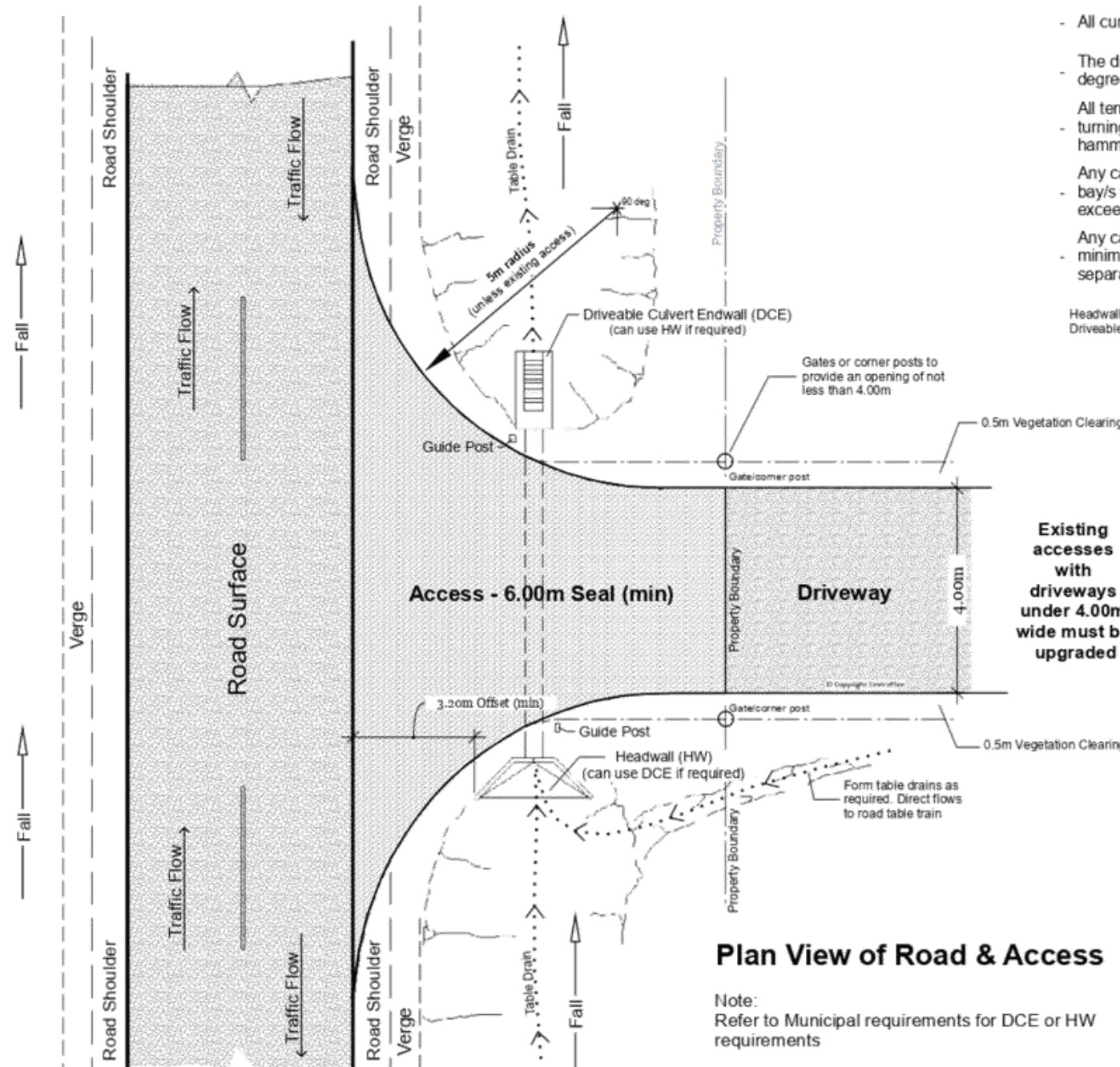
Bushfire Prone Areas Property Access Detail - Rural Construction Standard

Specifications - Property Access Exceeding 30m to Building Area

- The property access must be constructed to an all-weather construction with a load capacity of at least 20 tonnes including any bridge or culverts if applicable.
- The driveway from the access to the building area must be a minimum of 4m wide with a vertical clearance of 4m.
- The driveway must have a minimum horizontal vegetation clearance of 0.5m.
- The driveway must have cross falls of less than 3 degrees (1:20 or 5%) and dips of less than 7 degrees (1.8 or 12.5%) from an entry and exit angle.
- All curves on the driveway must contain a minimum inner radius of 10 meters.
- The driveway must have cross falls of less than 3 degrees (1:20 or 5%) and a maximum grade of 15 degrees (1:3.5 or 28%) for sealed roads and / or 10 degrees (1:5.5 or 18%) for unsealed roads.
- All terminations of driveways must be provided with a turning area for fire appliances by either a turning circle with a minimum radius of 10m, a property access encircling the habitable building or a hammerhead 'T' or 'Y' turning head 4m wide and 8m long.
- Any carriageway accessing up to 2 properties that exceeds 200m in length must provide passing bay/s with a minimum additional 2m carriageway width (6m total) and 20m in length and must not exceed 200m in separation between the site access to the building area.
- Any carriageway accessing 3 or more properties must be provided with passing bay/s with a minimum 2m carriageway width (6m total) and 20m in length and shall not exceed 100m in separation from the site access to the building area.



Cross Section of Road & Access



Plan View of Road & Access

Note:
Refer to Municipal requirements for DCE or HW requirements



Cross Section of Culvert & Access

SPECIFICATIONS PAGE



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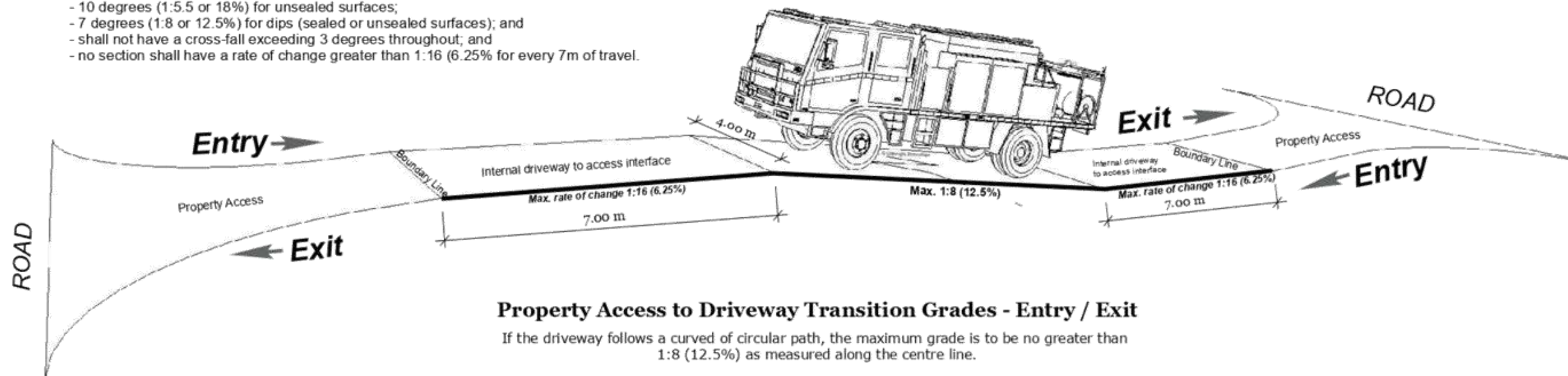
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Bushfire Prone areas Property Access / Driveway Interface (Rural Access) - Maximum Gradient Details

NOTE: Assessed or indicative driveway angle/s may be improved at time of construction through minor land modifications to enable greater vehicular access

The grade of the driveway is to be no steeper than:

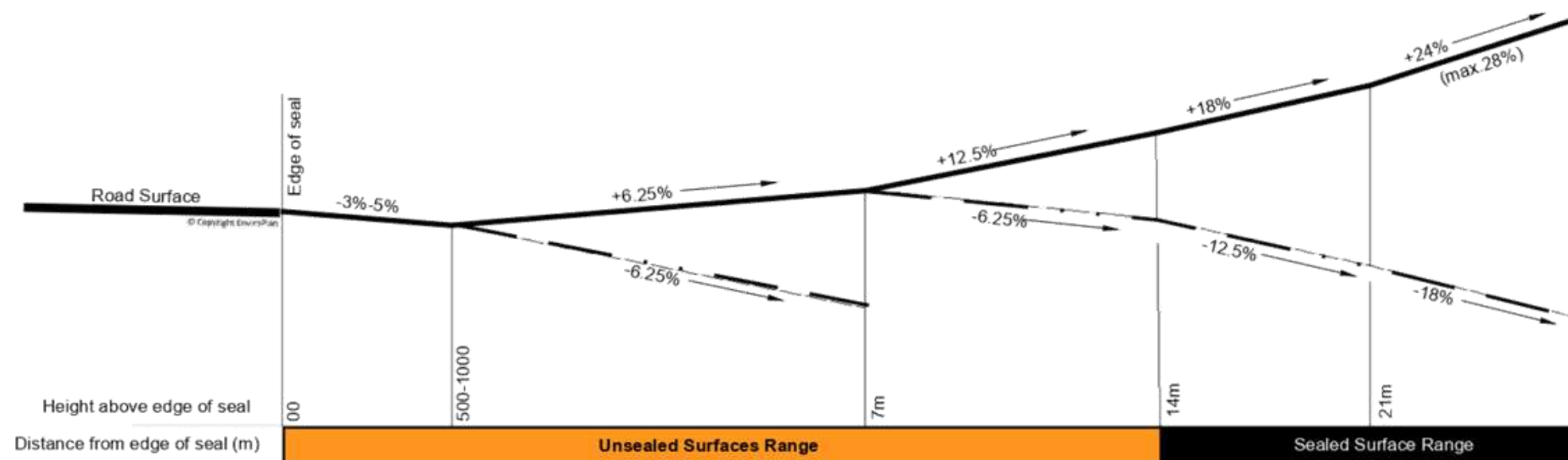
- 15 degrees (1:3.5 or 28%) for sealed surfaces;
- 10 degrees (1:5.5 or 18%) for unsealed surfaces;
- 7 degrees (1:8 or 12.5%) for dips (sealed or unsealed surfaces); and
- shall not have a cross-fall exceeding 3 degrees throughout; and
- no section shall have a rate of change greater than 1:16 (6.25%) for every 7m of travel.



Property Access to Driveway Transition Grades - Entry / Exit

If the driveway follows a curved or circular path, the maximum grade is to be no greater than 1:8 (12.5%) as measured along the centre line.

The driveway transition grades between entry and exit must have a maximum rate of change of 1:16 (6.25%) for every 7m of travel.



Rural Driveway Profile - Max. Gradients

Culvert removed for clarity

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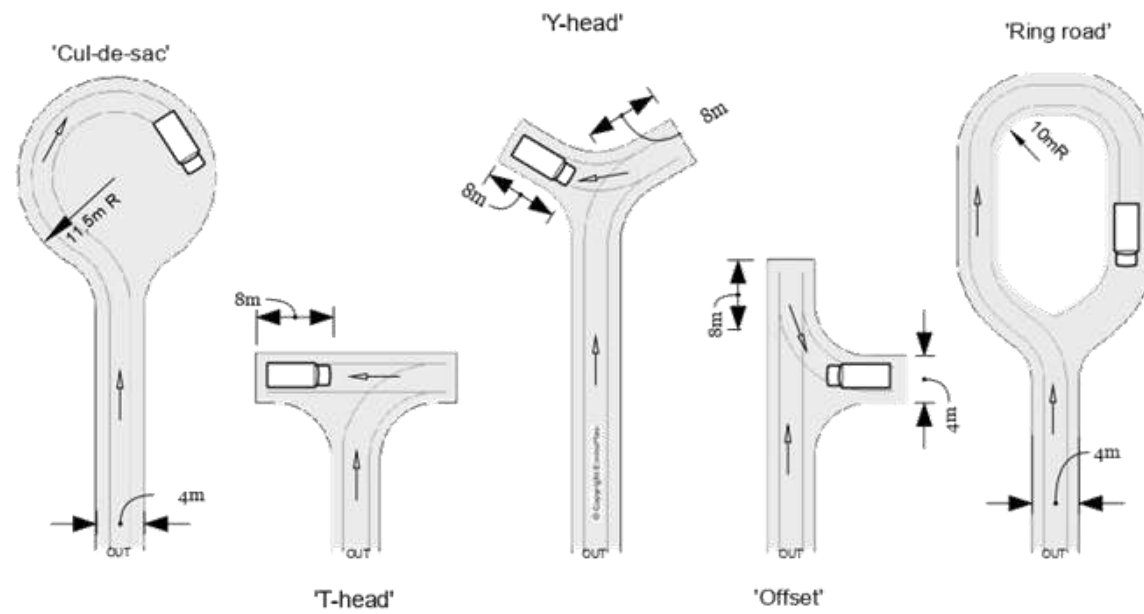
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Bushfire Prone Areas Property Driveways & Fire Trails

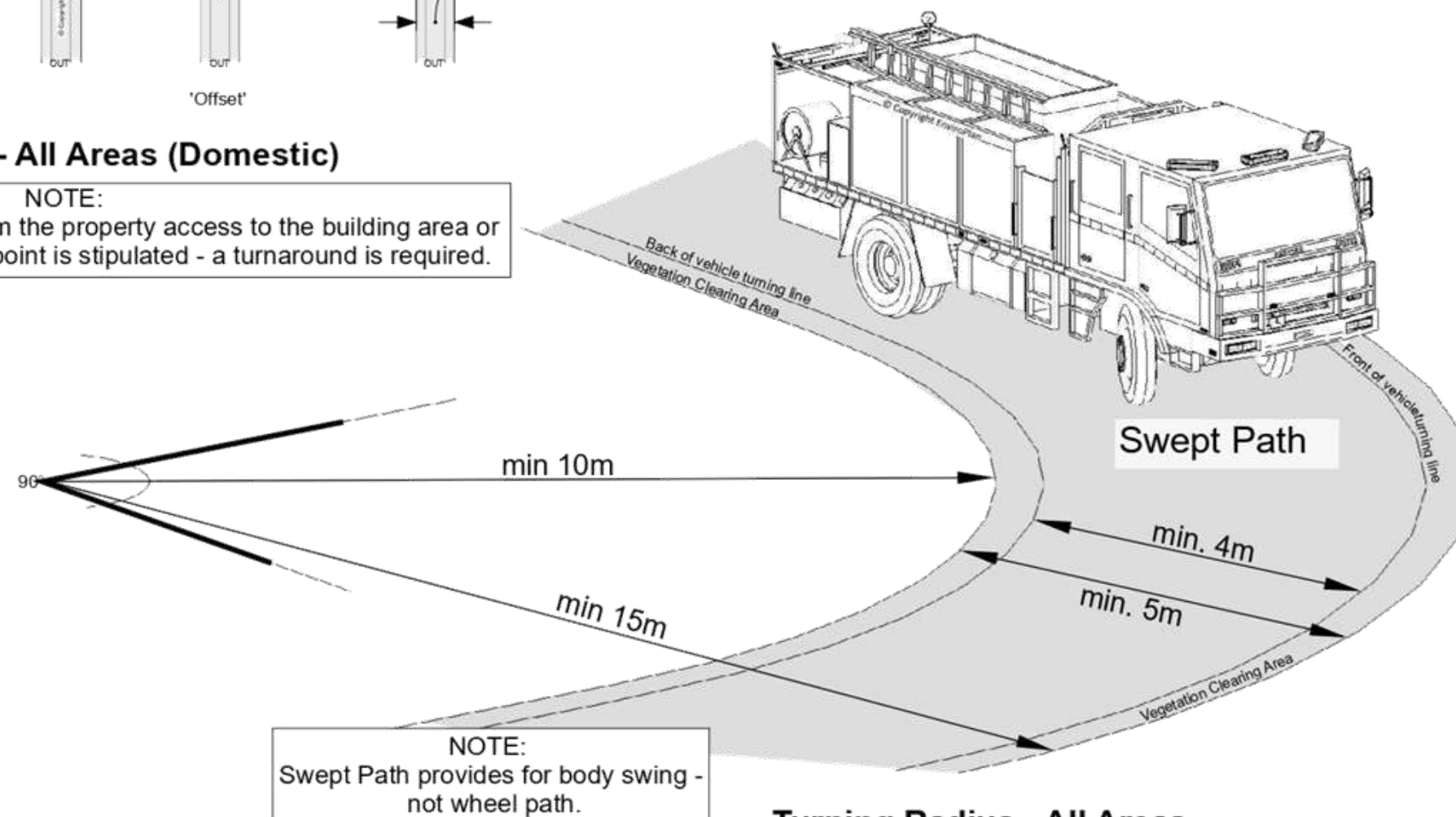


Appropriate turning areas for all internal access driveways

- min 4m driveway width
- min 8m long turning head
- min 10m inner radius on all driveway turns

Turnaround - All Areas (Domestic)

NOTE:
All driveways exceeding 30m from the property access to the building area or where a bulk water connection point is stipulated - a turnaround is required.



NOTE:
Swept Path provides for body swing - not wheel path.

Turning Radius - All Areas

Turning Radius for all internal access driveways

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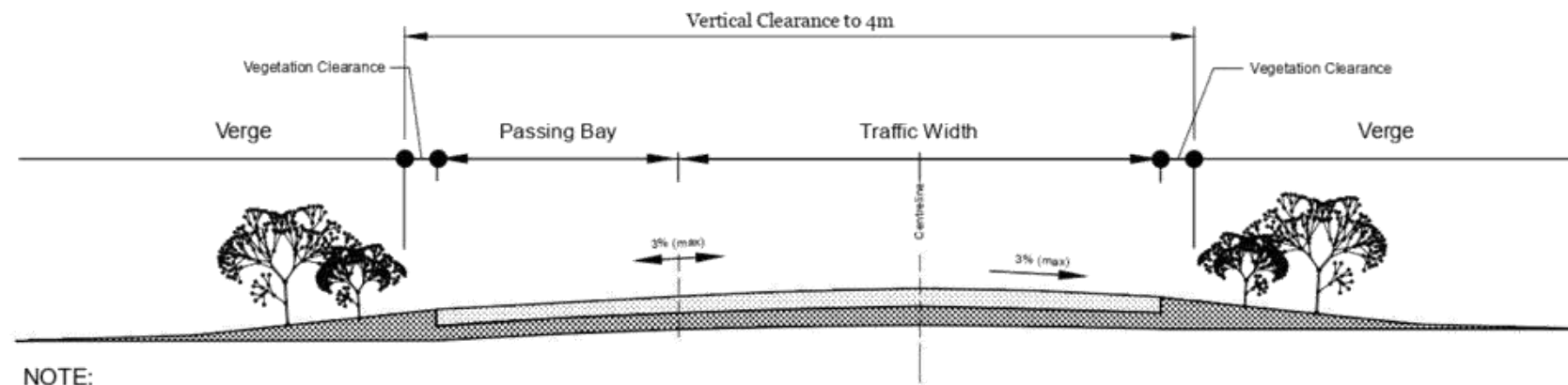
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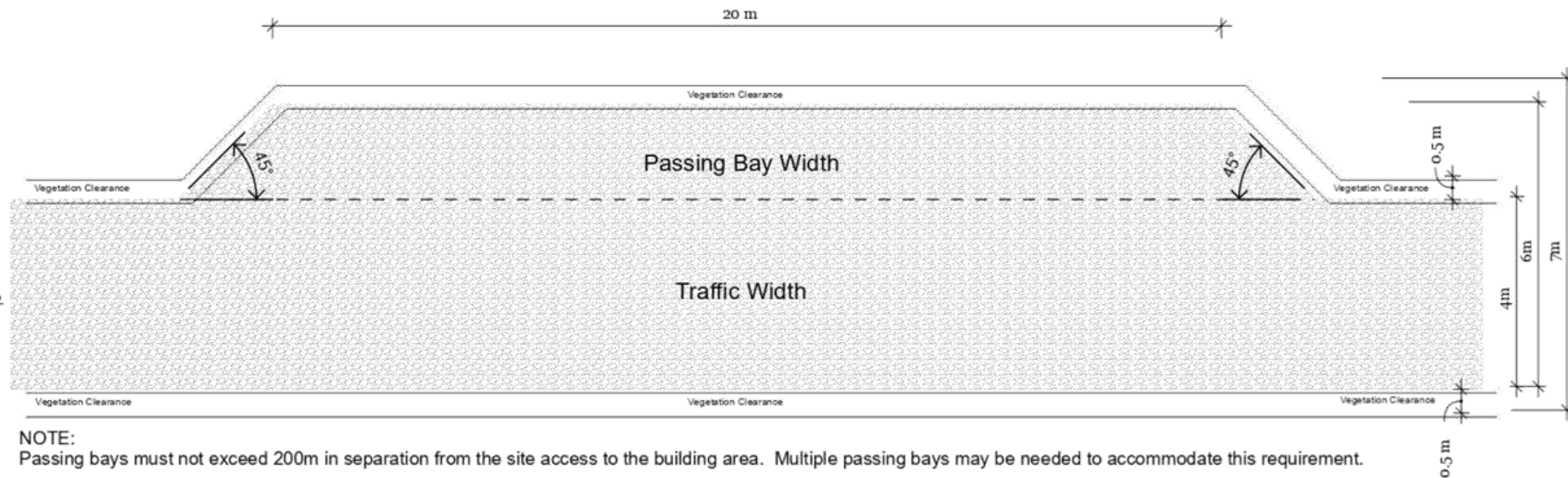
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Bushfire Prone Areas Property Passing Bay's (Internal Accesses)



NOTE:
Surface type to be determined with consideration to vehicle types, turning movement, location and grade

Passing Bay Typical Cross Section



NOTE:
Passing bays must not exceed 200m in separation from the site access to the building area. Multiple passing bays may be needed to accommodate this requirement.

Any property access that services 3 or more properties must provide passing bays not exceeding 100m in separation from the site access to the building area. Multiple passing bays may be needed to accommodate this requirement.

Passing Bay Detail

1 Passing Bay Typical Cross Section
Scale: 1:50



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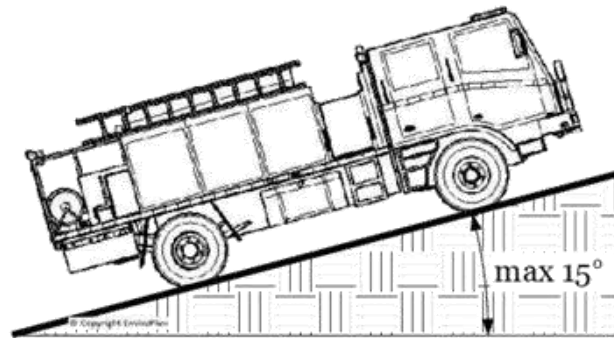
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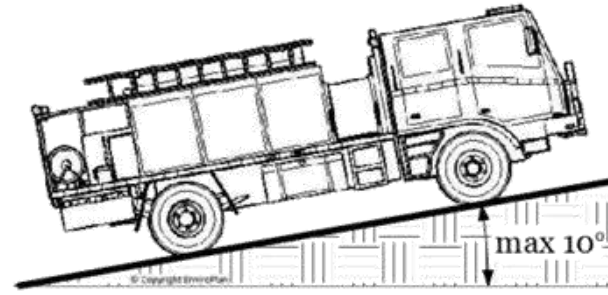
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Bushfire Prone Areas Property Driveways & Fire Trails (cont)



Sealed Surface Gradient

sealed driveways & roads shall not exceed a maximum grade 15 degrees (1:3.5 or 28%)



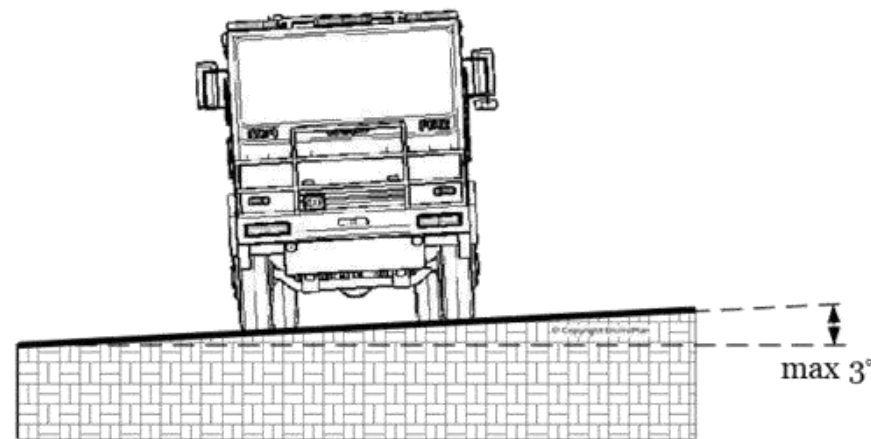
Un-sealed Surface Gradient

unsealed driveways & roads shall not exceed a maximum grade 10 degrees (1:5.5 or 18%)



Dips Gradient

dips shall not exceed a maximum entry and exit angle of 7 degrees (1:8 or 12.5%)
and the cross-fall gradient shall not exceed a maximum grade 3 degrees (1:20 or 5%)

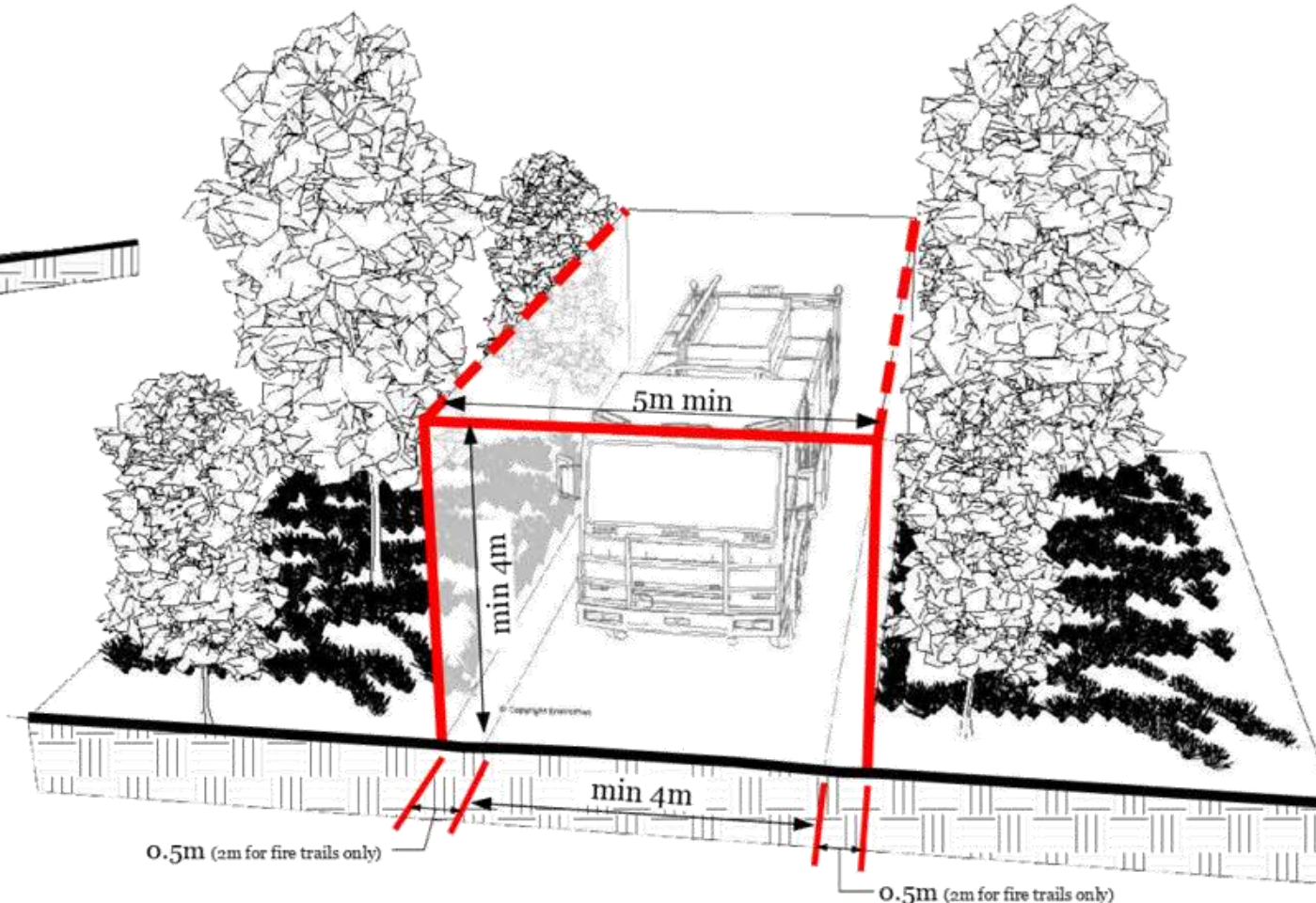


Cross-fall Gradient

the cross-fall gradient shall not exceed a maximum grade 3 degrees (1:20 or 5%) (all seals)

Specifications - Fire Trails

- Fire trails shall be constructed to a four-wheel drive all-weather construction with a load capacity of 20 tonnes including bridges and culverts if applicable.
- The fire trail carriage width must be a minimum of 4m wide with a 4m vertical clearance.
- The fire trail must have a horizontal vegetation clearance of 2m from the edge of the carriageway
- All roads must have a cross fall of less than 3 degrees (1:20 or 5%) and a maximum dip of 7 degrees (1:8 or 12%) for sealed fire trails and / or 10 degrees (1:5.5 or 18%) for unsealed driveways.
- All curves must have a minimum inner radius of 10 meters.
- If gates are installed at the fire trail entry the minimum width of the gate must be 3.6m and if locked keys must be provided to the TFS.
- All terminations of carriageways must be provided with a turning area for fire appliances by either a turning circle with a minimum radius of 10m, a property access driveway encircling the habitable building or a hammerhead 'T' or 'Y' turning head 4m wide and 8m long.
- Any fire trail exceeding 200m in length must provide passing bay/s at a minimum additional 2m carriageway width (6m total) and 20m in length not exceeding every 200m in separation from the site access to the building area.



Vegetation Clearance & Property Access Driveway Construction

The property driveway must be constructed to an all-weather construction with a load capacity of at least 20 tonnes including any bridges or culverts (if applicable)

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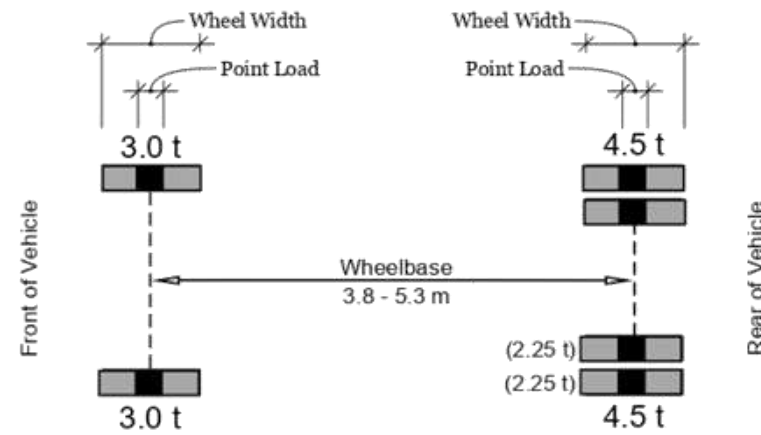
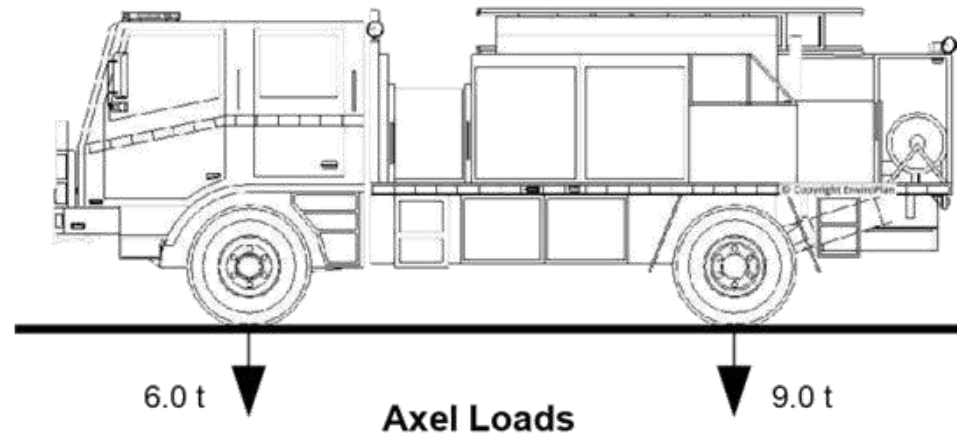
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Bushfire Prone Areas - Culverts / Bridges and Load Capacities

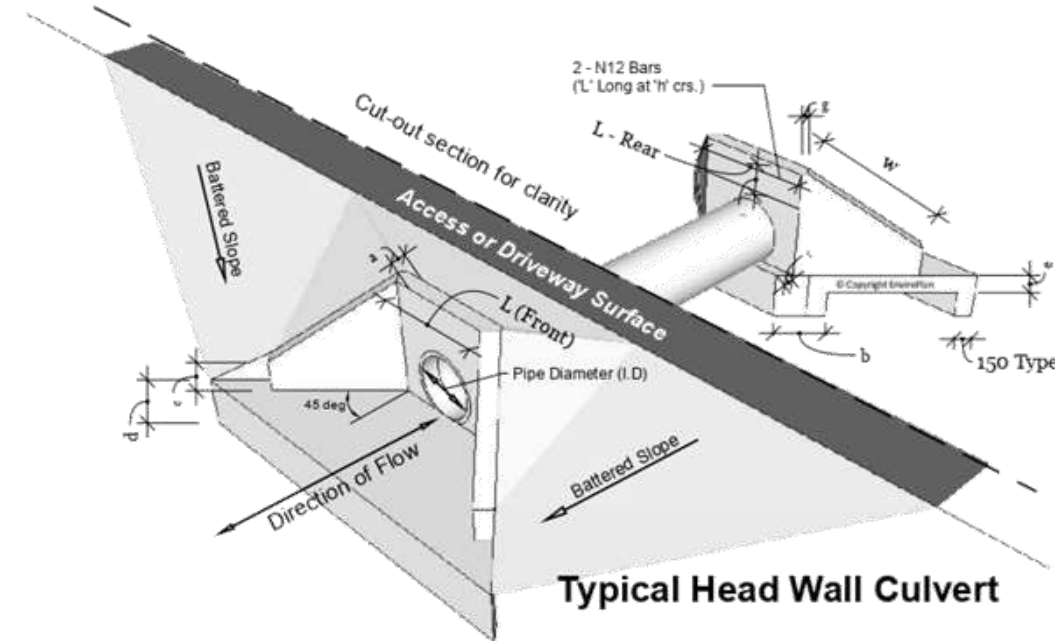
The maximum weight of a general fire appliance is 15 tonnes. The static load should be used when determining forces acting through load bearing structures and surfaces.
The minimum design requirement for loading capacities for any road, bridge or culvert is 20 tonnes which allows for an adequate safety margin.



Wheel Loads

Point Load Construction Notes

- 1 Hardstand areas must be founded on solid ground and are not to be located over culverts or bridges, suspended floors or wharf areas (or the like).
- 2 Hardstand areas must not be located over municipal reticulation mains (water, sewer, stormwater or gas mains)
- 3 The driveway surface and hardstand area/s are to have a binding and hardness to withstand point loads exerted through each tyre (seen in black above).
- 4 Tyres are typically inflated around 850 kPa pressure. If the driveway or hardstand areas has insufficient surface integrity, the point load will result in localised damage to the trafficable surface
- 5 Access or Driveway surface must maintain cover of 1/2 the diameter of the pipe measured from the top of the culvert pipe to finished surface level.



Typical Head Wall Culvert

Pipe Diameter (I.D)	300	375	450	525	600	675	750	825	900
Headwall Dimensions (mm)									
a	150	150	150	150	175	175	200	200	225
b	300	300	300	300	375	375	400	400	425
c	300	300	300	300	350	350	350	350	350
d	375	375	375	375	530	530	530	530	530
e	150	150	150	150	175	175	200	200	225
f	75	75	75	75	100	100	100	100	100
g	40	40	40	40	50	50	50	50	50
h	70	70	70	70	75	75	100	100	125
i	200	200	200	200	300	300	300	300	300
w	700	700	850	1000	1100	1300	1450	1600	1750
vol. of Concrete (m3)	0.329	0.375	0.485	0.621	0.981	1.220	1.483	1.702	2.027
Reinforcing (all bars N12)									
L - (Rear)	845	921	1017	1099	1204	1287	1388	1470	1575
L - (Front)	803	880	975	1057	1140	1223	1305	1387	1471
Reo. Length (mm)	1648	1801	1992	2156	2344	2510	2693	2857	3046
Reo. Mass (kg) *	1420	1509	1687	1776	1954	2131	2220	2398	2486

* Does not include SL82 mesh to slab

For further details refer to TSD-SW17-v1 of IPWEA Standard Drawings

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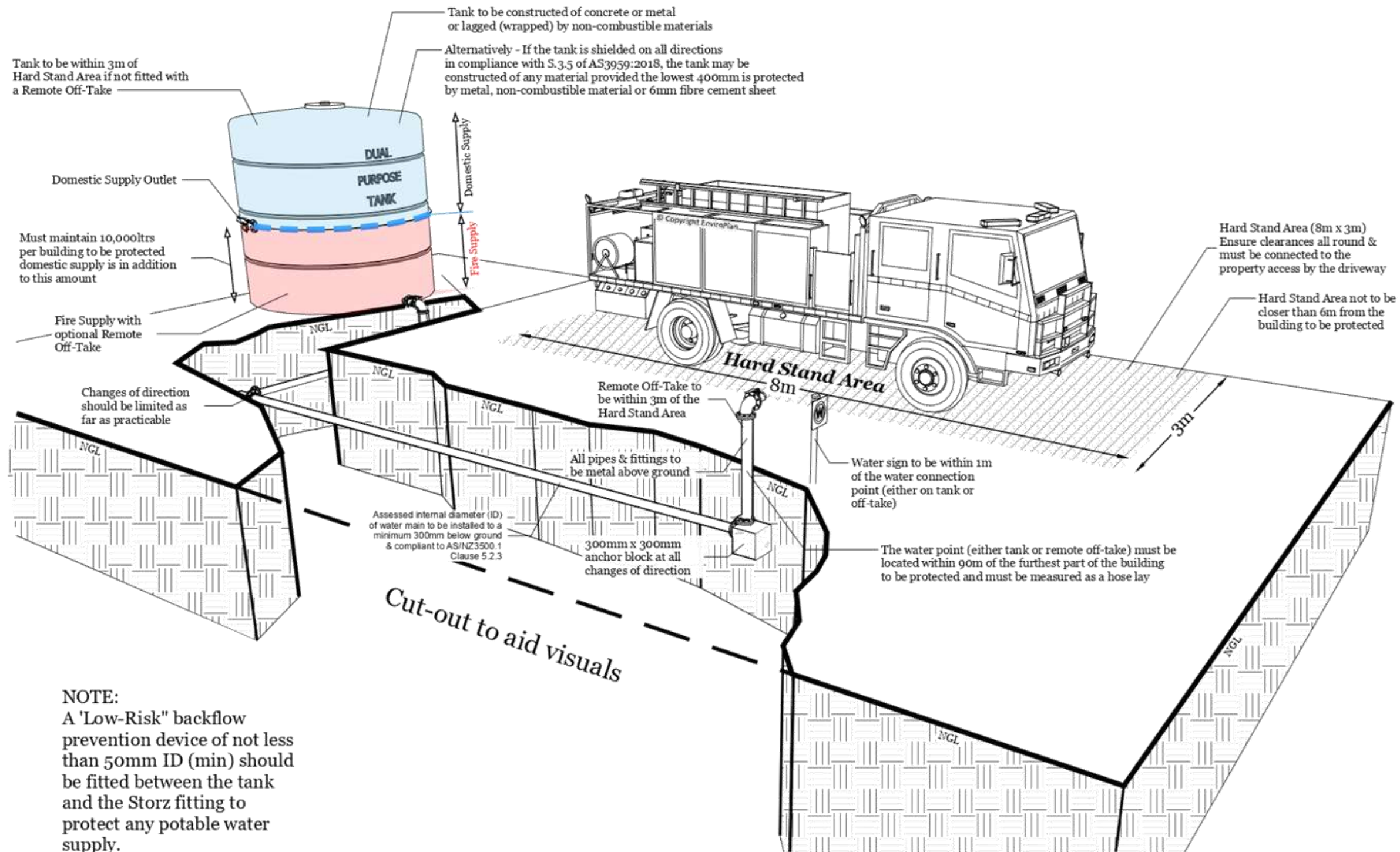
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B0.11

SPECIFICATIONS PAGE

Static Water Supply & Hard Stand Area Details



NOTE:
A 'Low-Risk' backflow prevention device of not less than 50mm ID (min) should be fitted between the tank and the Storz fitting to protect any potable water supply.

SPECIFICATIONS PAGE



Annexure
B0.12

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Pipe Sizes & Classes Required for Remote Off-Take's

The following pipe sizes from the water supply outlet to the remote off-take have been calculated based on a fire truck drawing water from the water supply outlet at a rate of 20L/s and represents the minimum sizes and classes of pipe to be used to avoid negative pressure from the pump damaging the pipe. The calculations also assume that a 64mm diameter coupling is being used at the outlet.

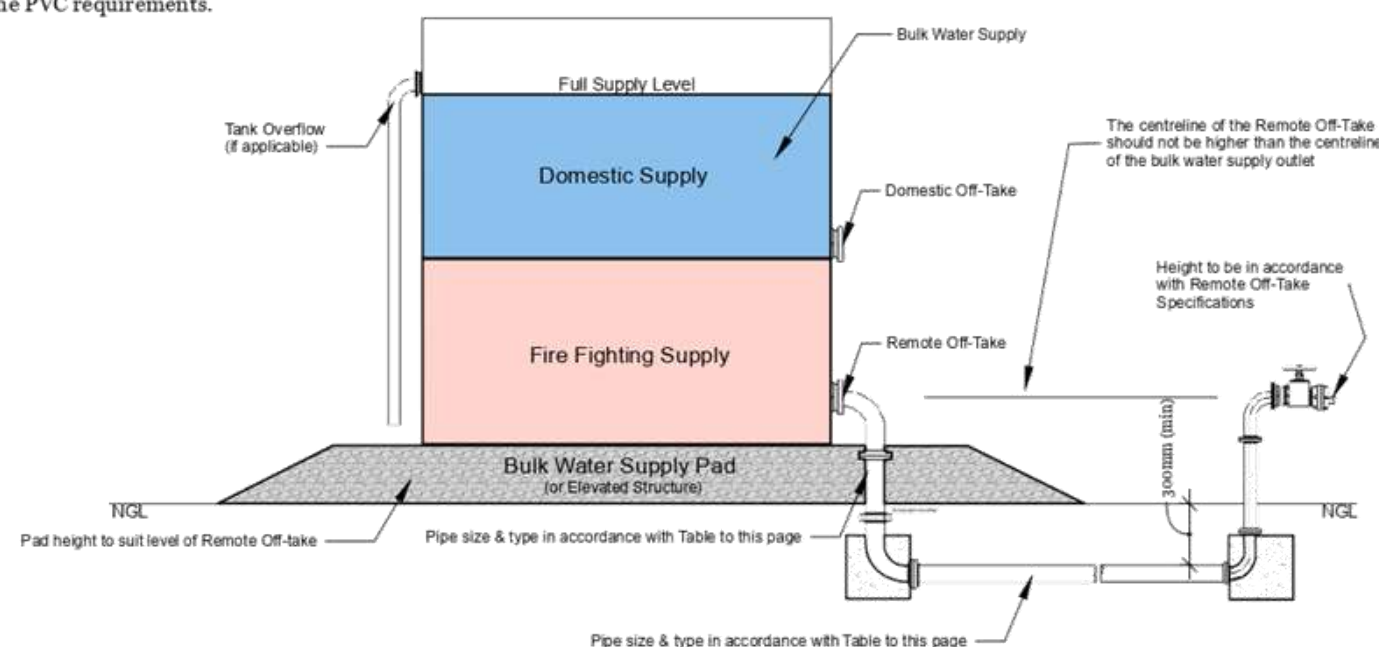
NOTE: Remote Off-Take's cannot exceed 100m in separation from the water outlet.

Length of pipe between outlet & off-take	10 to 19m		20 to 29m		30 to 39m		40 to 49m		50 to 59m		60m to 79m		80m to 99m		100m (capped)	
Pipe Type	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE
Vertical Height between water supply outlet & remote off-take (0m)	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	150mm	180mm*	150mm	180mm*
Remote Off-Take 1m below water supply outlet	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	150mm	180mm*
Remote Off-Take 2m below water supply outlet	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm
Remote Off-Take 3m below water supply outlet	80mm	90mm	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm
Remote Off-Take 4m below water supply outlet	80mm	90mm	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm
Remote Off-Take 5m below water supply outlet	80mm	90mm	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm

* Denotes Special Order Item (expect increased costs)

NOTES:

- Lineal meters are to be rounded **UP** to the next whole number (i.e. 19.6m is to be considered 20m).
- PVC pipe is to be **Class 12**
- Cu (Copper) can be used and is the same as the PVC requirements.
- HDPE pipe is to be **PN 12.5**



Remote Off-Take Height in Relation to Bulk Water Supply Outlet

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CLIENT
Ashley O'Shea & Tabitha Rose Hodge
PROJECT Address
183 Back Cam Road, Somerset

PID:
7902963
CT:
105238/1

DRAWN BY
M Wells
ISSUE Date
22/06/2020 (Rev 2)

DESIGNERS DESCRIPTION:
EnviroPlan
DESIGNERS REFERENCE NUMBERS:
220132

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Annexure
B0.13

SPECIFICATIONS PAGE

SPECIFICATIONS PAGE



The water connection point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must comply with:

- ### Specifications - Tank Fittings, Pipework & Accessories

- Have a minimum nominal internal diameter of 50mm.
- Be fitted with a valve with a minimum nominal internal diameter of 50mm.
- Be metal or lagged by non-combustible material if above ground.

Where buried, have a minimum depth of 300mm (compliant with AS/NZS3500.1 2003 Clause 5.23).

- Provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to firefighting equipment.
- Ensure the coupling is accessible and available for connection at all times.
- Ensure the coupling is fitted with a blank cap and securing chain (min 220mm length).
- Ensure underground tanks have an opening at the top of not less than 250mm diameter.

Where remote off-take is installed; ensure the off-take is in a position that is visible and accessible to allow connection by firefighting equipment and is at a working height of 450mm - 600mm above ground level and protected from damage (bollards or the like) including damage by vehicles.

A "Low-Risk" backflow prevention device of not less than the required ID of the delivery pipe should be fitted between the tank and the Storz fitting to protect any potable water supply on a dual purpose tank.

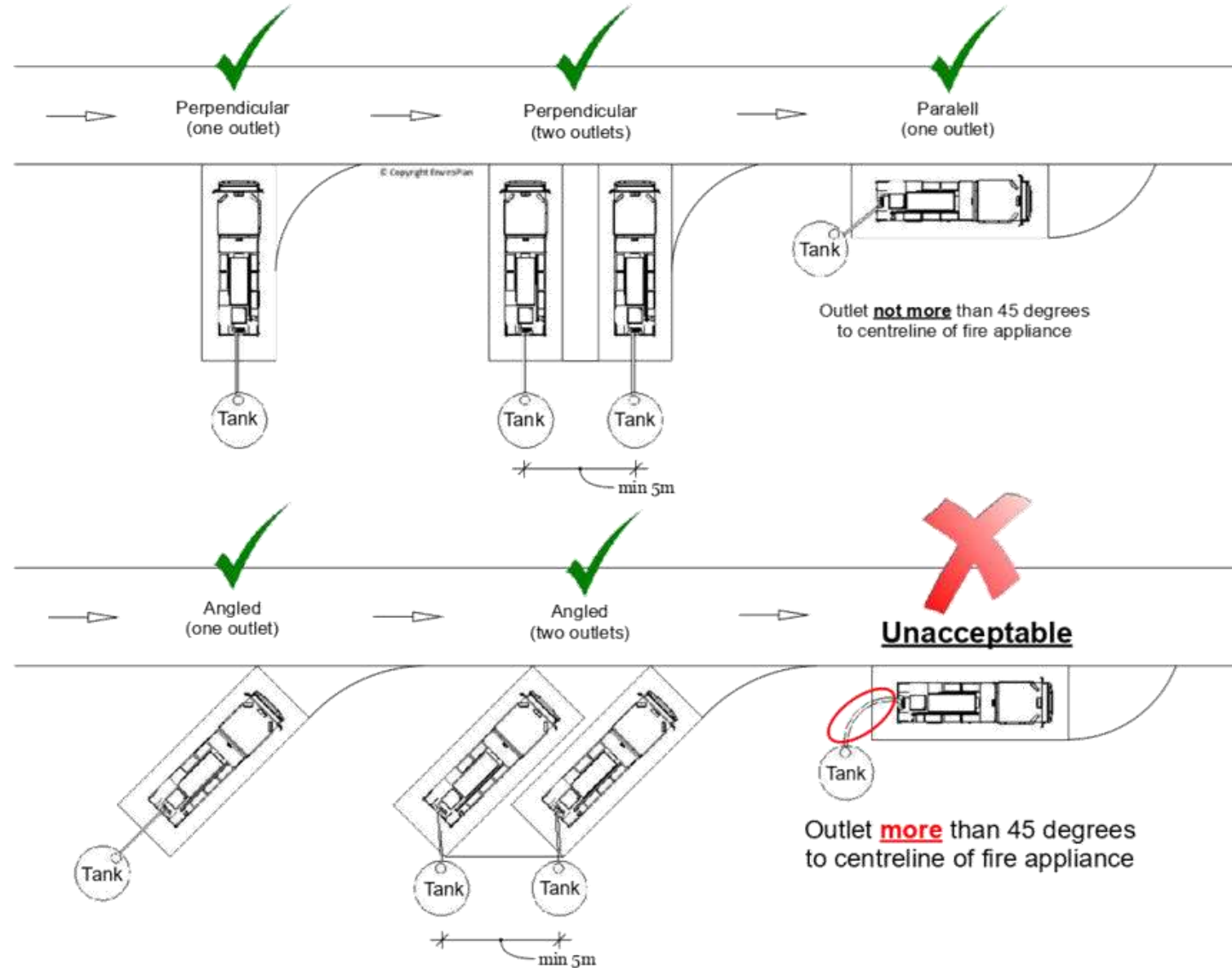
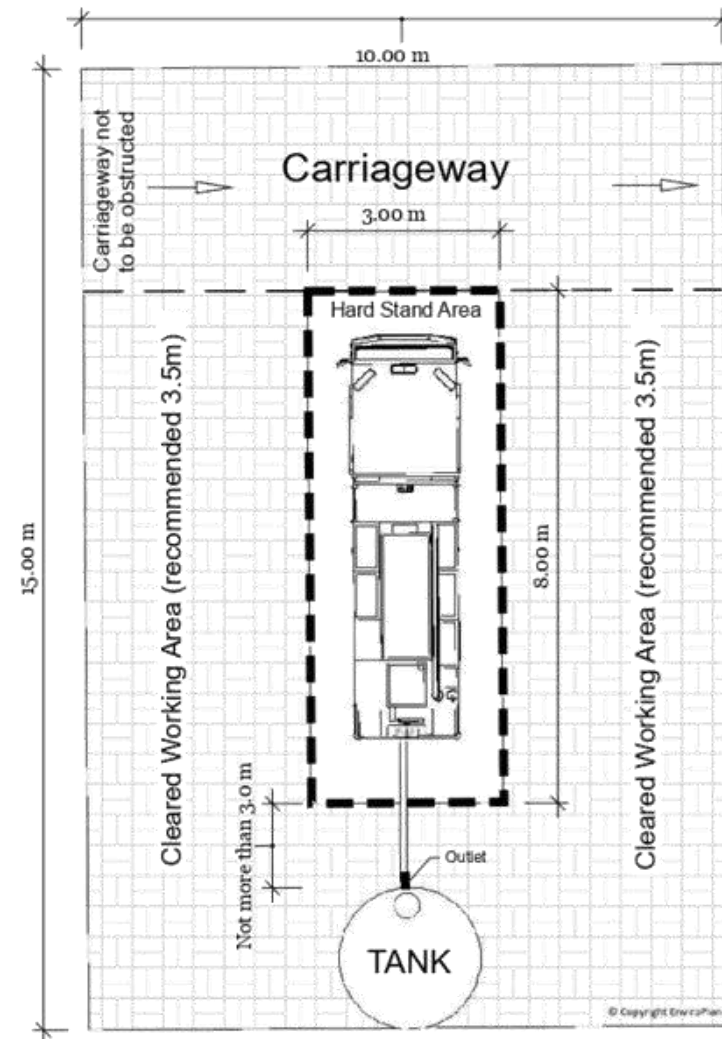


Annexure B0.14

Hard Stand Details

Hardstand area serving a suction - connection outlet

A minimum clearance of 3.5m should be provided. A turnaround area may be used as a hardstand area only when another fire appliance can safely turn around.



SPECIFICATIONS PAGE

Specifications - Hard Stand Areas for Static Water Supplies

A hard stand area for fire appliances must be provided:

- No more than 3m from the water from the water connection point measured as a hose-lay (including the minimum water level in dams, swimming pools and the like); and
- No closer than 6m from the building area to be protected; and
- With a minimum width of 3m constructed to the same standard as the driveway; and
- Connected to the property access by a driveway equivalent to the standard of the property access.

Orientation of hardstand area for suction - connection outlets

Suction - connection outlets are not to be located within 5m of each other

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CLIENT
Ashley O'Shea & Tabitha Rose Hodge
PROJECT Address
183 Back Cam Road, Somerset

PID:
7902963
CT:
105238/1

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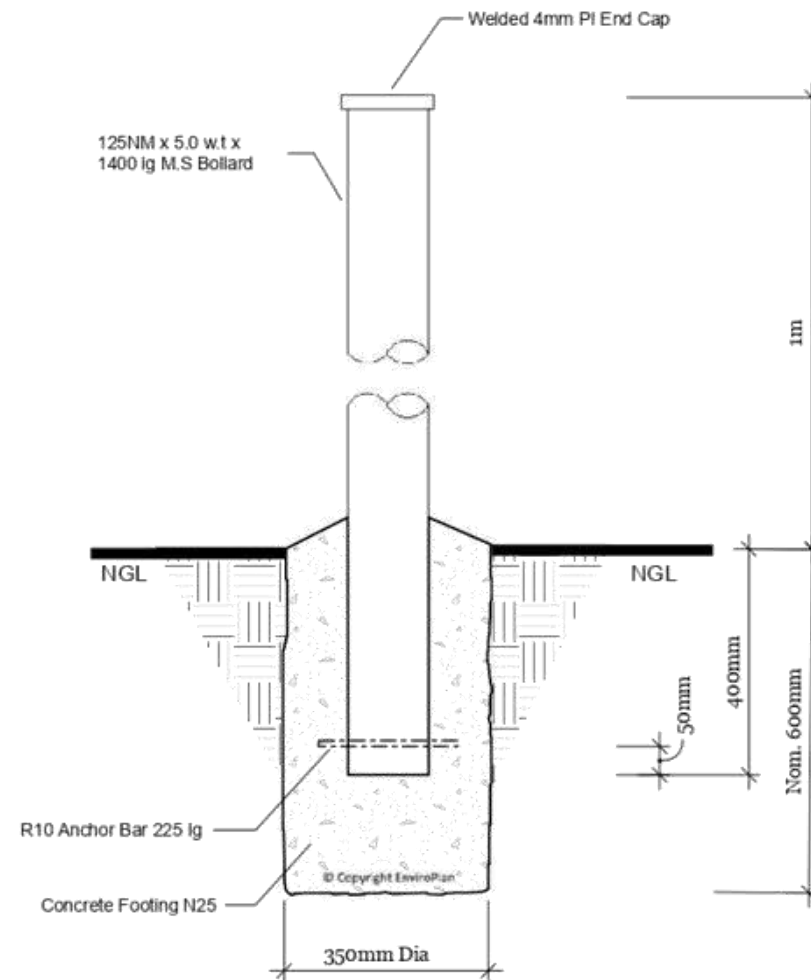
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Annexure
B0.15

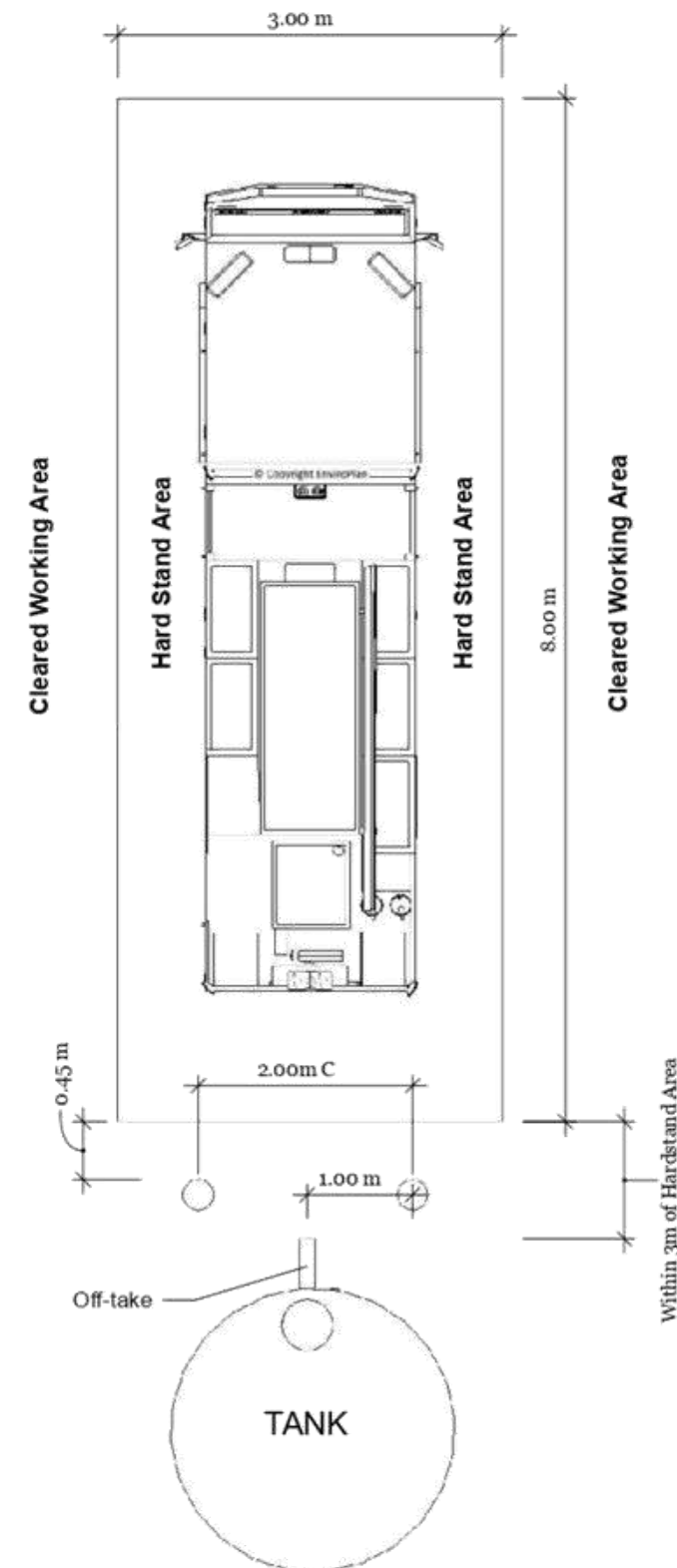
Bollard Construction & Off-take Protection Detail



Remote Off-Take Protection Bollard

Or similar solid protection method

Protection Bollard Height Table			
Soil Type	Hole Depth (mm)	25MPa Concrete Bags (per hole)	Post Height (mm) above NGL
Clay/Firm Earth	600	2	1000
Sand/ Loose Fill	1000	3	1000



Positioning of Protection Bollard

SPECIFICATIONS PAGE



Annexure
B0.16

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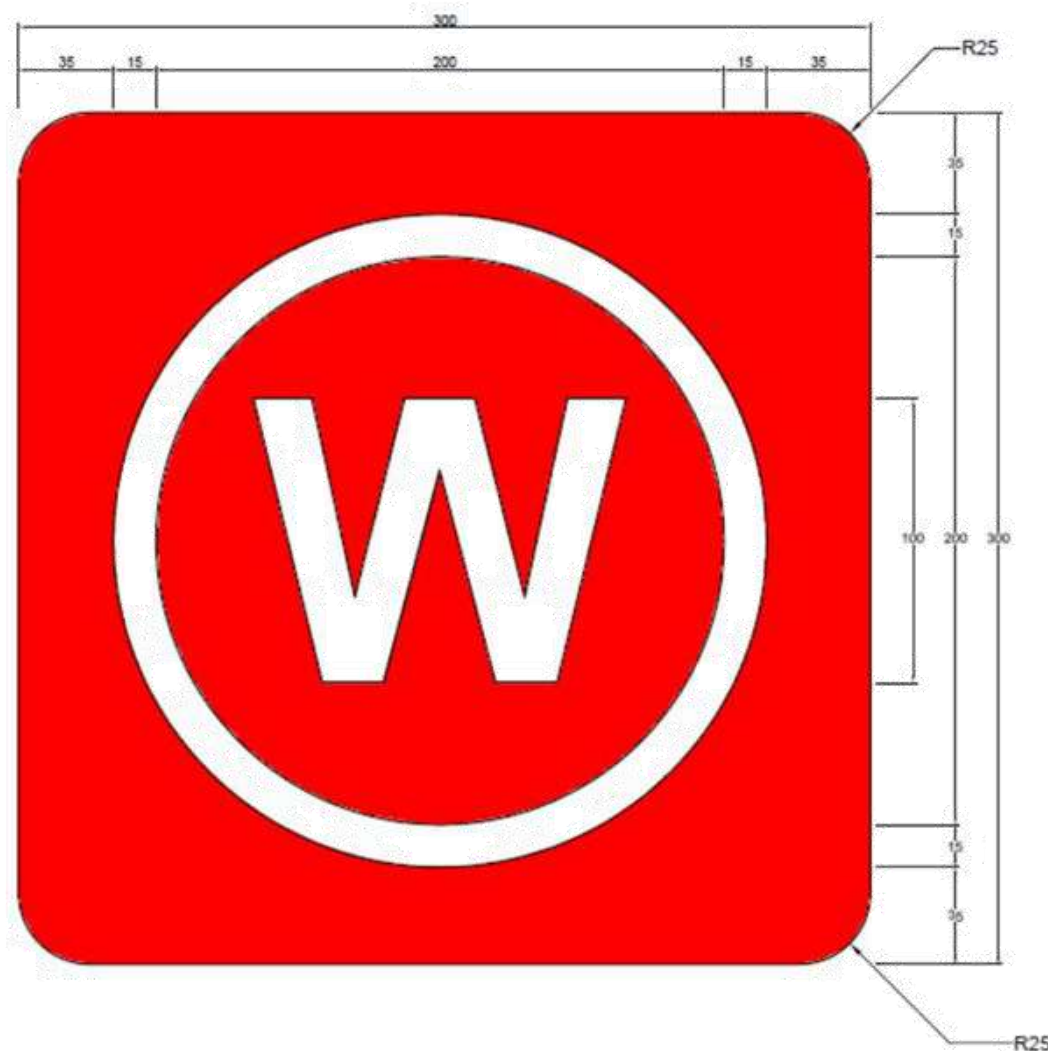
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PROJECT Address
183 Back Cam Road, Somerset

PID:
7902963
CT:
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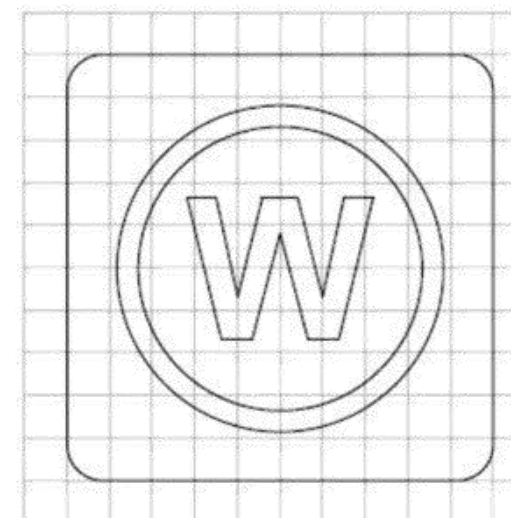


OVERALL SIGN DIMENSIONS (mm): 300 x 300, +/- 5
SURFACE AREA OF SIGN (sq m) : 0.0895

LEGEND COLOUR: WHITE (N14) IN ACCORDANCE WITH AS2700,
WITH A RETROREFLECTIVE SURFACE FINISH
BACKGROUND COLOUR: SIGNAL RED (R13) IN ACCORDANCE WITH AS2700


FOR SIGN FIXING AND LOCATION REQUIREMENTS, REFER TO
TASMANIA FIRE SERVICE WATER SUPPLY SIGNAGE GUIDELINES

FOR LEGEND SPECIFICATIONS AND MANUFACTURING DETAIL
REFER TO TASMANIA FIRE SERVICE WATER SUPPLY SIGNAGE GUIDELINES



GRID MODULE X = 30mm Y= 30mm

SPECIFICATIONS PAGE

 Tasmania Fire Service	ISSUE	APPRD	DATE	AMENDMENT	NOTES - all dimensions are in mm - written dimensions take precedence over scaled measurements	TITLE TASMANIA FIRE SERVICE WATER SUPPLY SIGN			
	A								
	B								
	C								
	D				DRWN WH APPRD CC DATE 2/2/2017	FILE BPP	DWG NO. TFS-WS01	SCALE 1:2	

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Annexure
B0.17

Ashley O'Shea & Tabitha Rose Hodge

183 Back Cam Road, Somerset

Drawing Index

1	A	Cover Page & Site Map
2	A0.1	Existing Site Plan
3	A0.2	Proposed Subdivision
4	A0.3	Enlarged Site Plan
5	A0.4	House Floor Plans
6	A0.5	House Elevations
7	A0.6	Shed Elevations



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Office: 71a Bass Highway, Somerset
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Email: admin@enviroplanaustralia.com.au

CLIENT
Ashley O'Shea & Tabitha Rose Hodge

PROJECT TYPE
Proposed Dwelling,
Shed & Subdivision

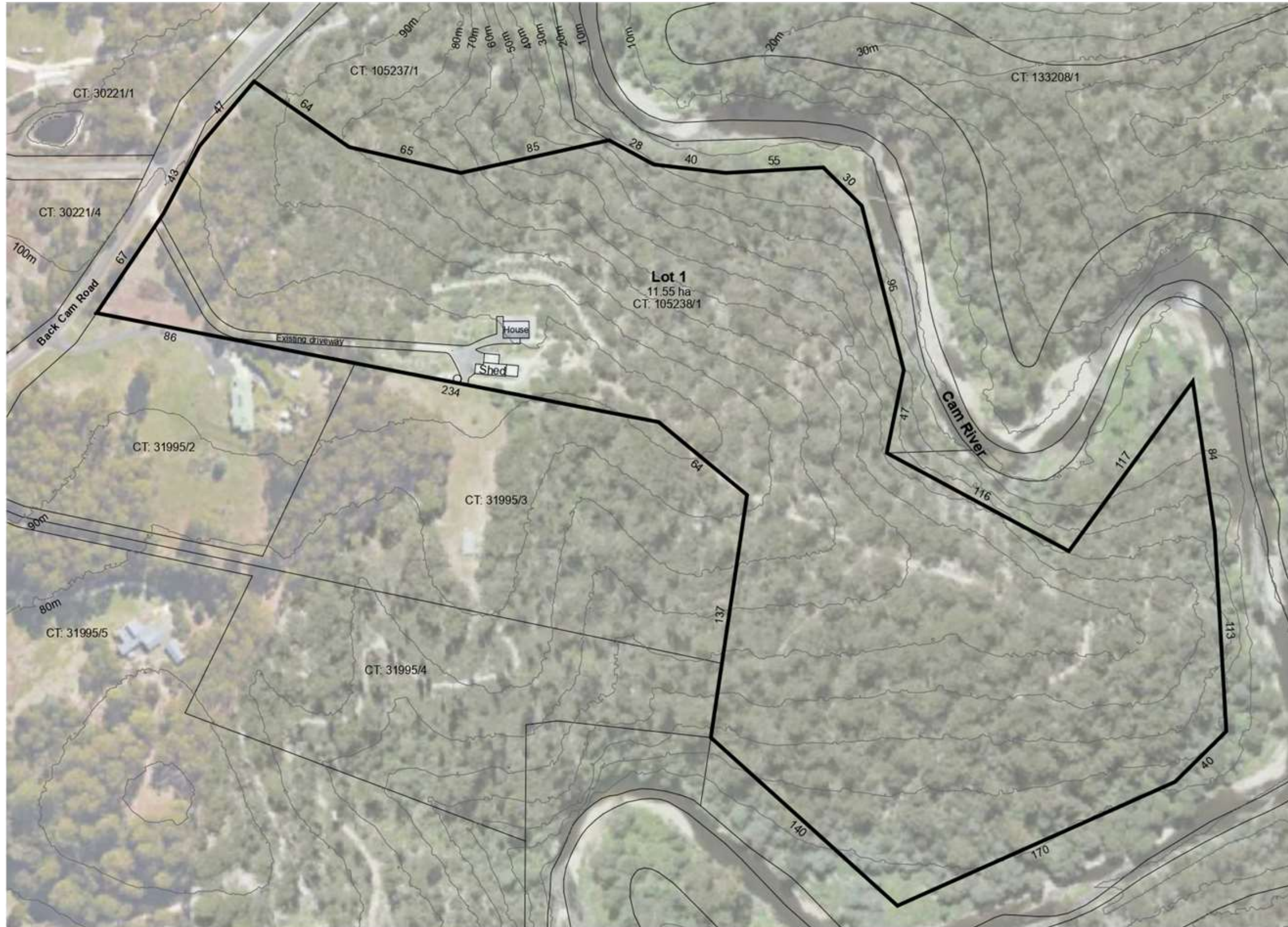
PROJECT NO.
220132

ISSUE
28/08/2020
RE-ISSUE
15/11/2021

DRAWN BY
J Dunn

DESCRIPTION
Cover Page & Site Map





This Plan has been prepared for the purpose of obtaining subdivision approvals from the local planning authority and the information shown hereon should be used for no other purpose.
 All dimensions and areas are subject to a final survey from an Authorised Cadastral Surveyor.
 All measurements are in metres



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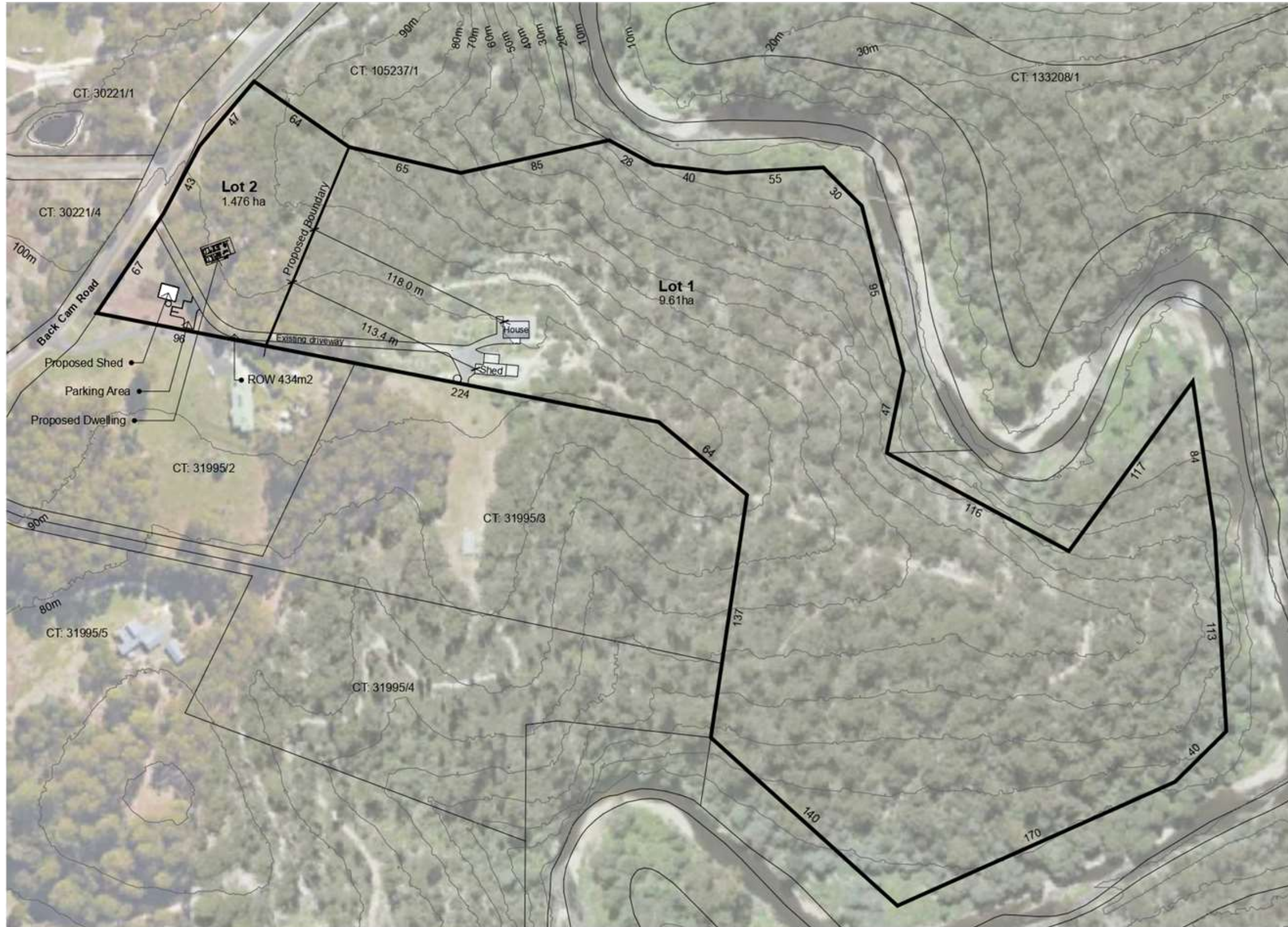


Scale @ A3
 1: 2000

<p>CLIENT</p> <p>Ashley O'Shea & Tabitha Rose Hodge 183 Back Cam Road, Somerset</p>	<p>ISSUE</p> <p>28/08/2020 RE-ISSUE 15/11/2021</p>	<p>PROJECT NO.</p> <p>220132</p>	<p>PROJECT</p> <p>Proposed Dwelling, Shed & Subdivision</p>
<p>DRAWN BY</p> <p>J Dunn</p>			
<p>DESCRIPTION</p> <p>Existing Site Plan</p>			

a

01



Site Plan

This Plan has been prepared for the purpose of obtaining subdivision approvals from the local planning authority and the information shown hereon should be used for no other purpose.
All dimensions and areas are subject to a final survey from an Authorised Cadastral Surveyor.
All measurements are in metres

Note: 10m Contours



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Scale @ A3
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CLIENT
Ashley O'Shea & Tabitha
Rose Hodge
183 Back Cam Road,
Somerset

ISSUE
28/08/2020
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PROJECT NO.
220132
PROJECT
Proposed Dwelling,
Shed & Subdivision

DRAWN BY
J Dunn
DESCRIPTION
Proposed Subdivision
Site Plan

a

02



This Plan has been prepared for the purpose of obtaining subdivision approvals from the local planning authority and the information shown hereon should be used for no other purpose.
All dimensions and areas are subject to a final survey from an Authorised Cadastral Surveyor.
All measurements are in metres



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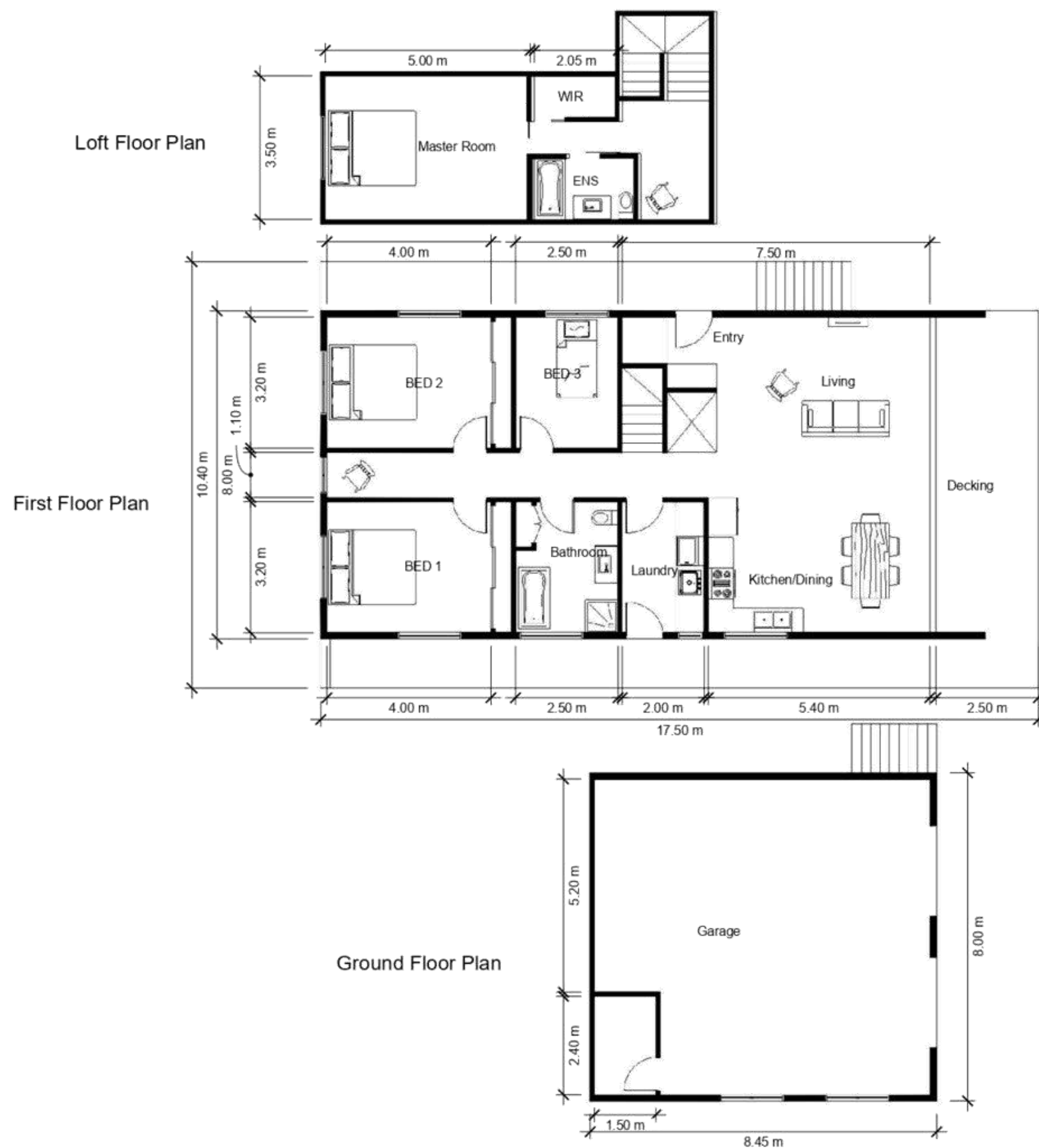
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PROJECT
Proposed Dwelling,
Shed & Subdivision

DRAWN BY
J Dunn
DESCRIPTION
Enlarged Site Plan

a

03



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Scale @ A3
1: 100

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Rose Hodge
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Somerset

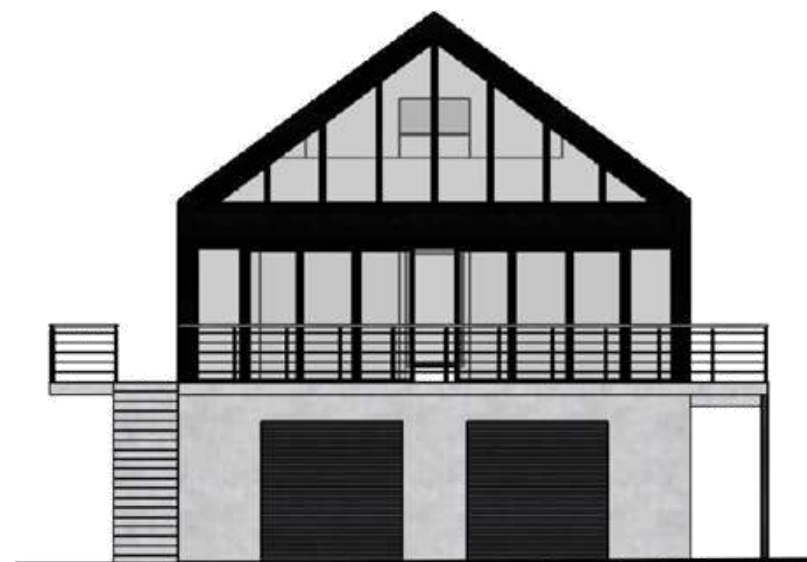
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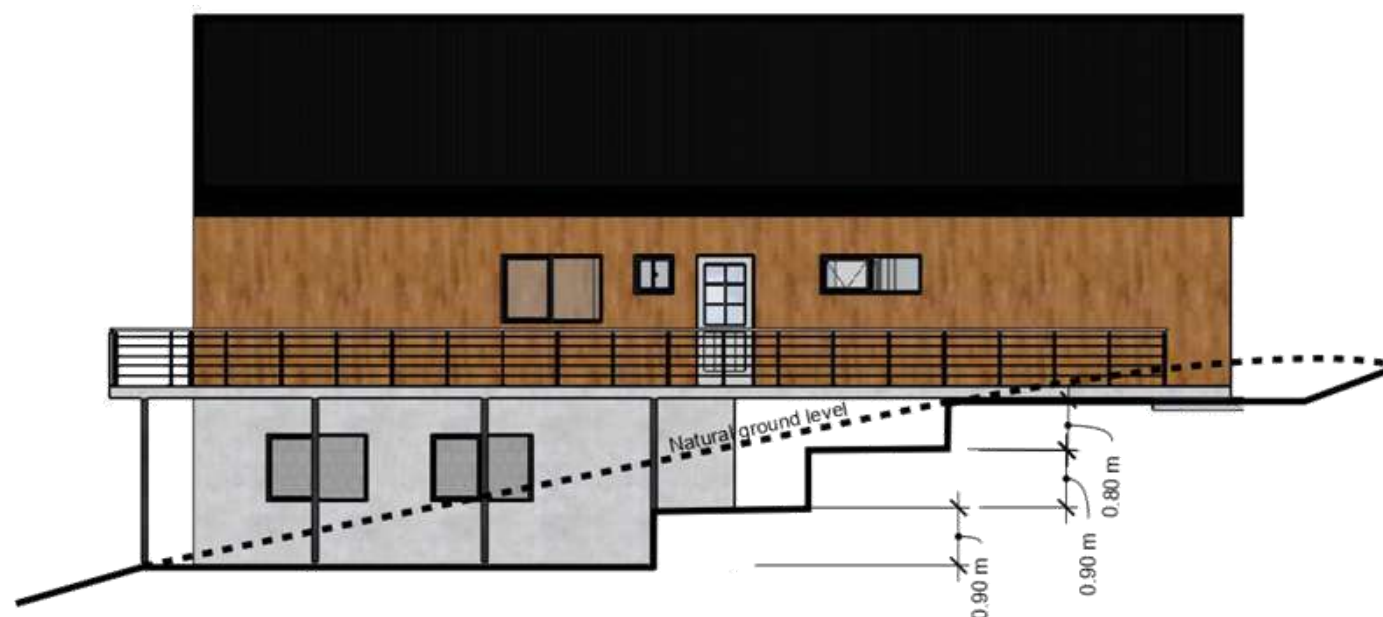
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J Dunn
DESCRIPTION
Proposed Dwelling
Floor Plans

a

04



East Elevation



North Elevation



West Elevation



South Elevation

Note: Retaining walls to be less than 1m in height.
Land to be battered where possible.



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Scale @ A3
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Rose Hodge
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Somerset

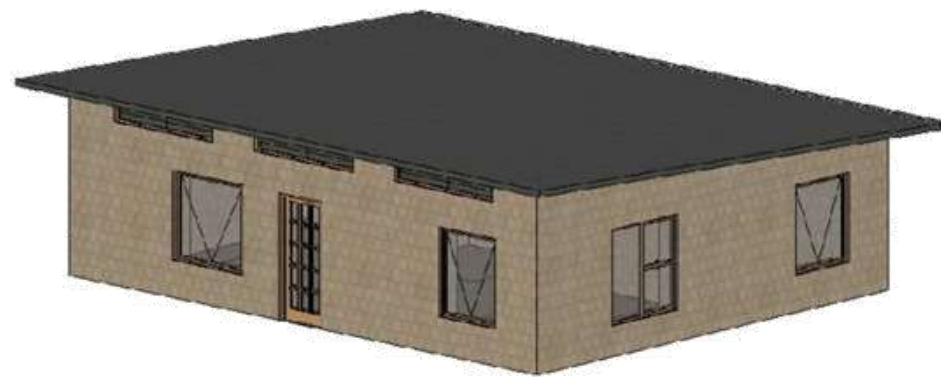
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PROJECT NO.
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PROJECT
Proposed Dwelling,
Shed & Subdivision

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DESCRIPTION
Proposed Dwelling
Elevations

a

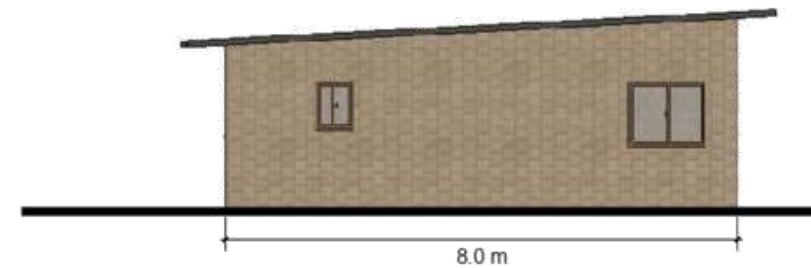
05



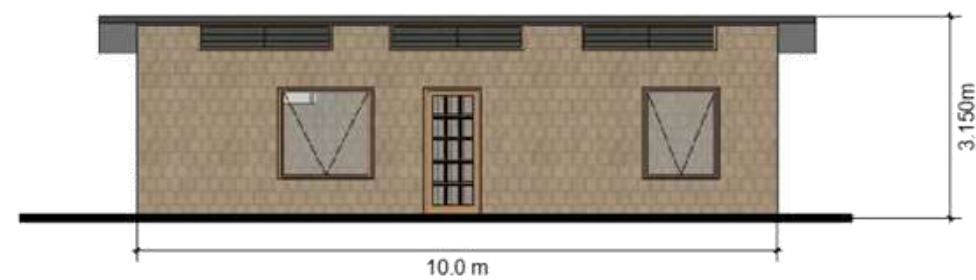
North Elevation



East Elevation



West Elevation



South Elevation



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Office: 71a Bais Highway, Somerset
Phone: 031 8411 1031
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Scale @ A3
1: 100

CLIENT
Ashley O'Shea & Tabitha
Rose Hodge
183 Back Cam Road,
Somerset

ISSUE
28/08/2020
RE-ISSUE
15/11/2021

PROJECT NO.
220132
PROJECT
Proposed Dwelling,
Shed & Subdivision

DRAWN BY
J Dunn
DESCRIPTION
Proposed Shed
Elevation

a

06

9 September 2022

Reference No. GL22561Aa

Mr Ashley O'Shea
183 Back Cam Road
Somerset TAS 7322

Dear Sir

RE: Subdivision
183 Back Cam Road, Somerset

1 INTRODUCTION

At the request of Mr Ashely O'Shea, Geoton Pty Ltd has carried out a risk assessment for a subdivision at 183 Back Cam Road, Somerset (Title Reference 105238/1). A site plan showing the proposed lot boundaries was provided, prepared by EnviroPlan (Project No.220132, Drawing No.A02, dated 15/11/21). It is understood that the proposed subdivision is to consist of 2 lots:

- Lot 1 – 9.6ha; and
- Lot 2 – 1.5ha

From the Waratah-Wynyard Interim Planning Scheme 2013, the sites contain minor areas mapped as Medium Landslide Hazard Bands. As such, it is understood that the Waratah-Wynyard Council has indicated that as the sites contain areas mapped within an area of doubtful stability, it is a requirement that the proposed subdivision be assessed to determine if they comply with the landslip requirements of the Hazard Management Code (Code E6) of the Waratah-Wynyard Interim Planning Scheme. That is, does the proposed subdivision significantly increase the level of risk from exposure to the landslide hazard and is the intended use likely to cause or contribute to the occurrence of a landslide on the site or on adjacent land.

2 BACKGROUND

2.1 Geology

The Mineral Resources Tasmania (MRT) Tasmanian Landslide Map Series, Wynyard – Geology Map, 1:25,000 Scale, indicates that the site is mapped as Proterozoic aged quartzwacke.

Subdivision

2.2 Landslide Hazard

Examination of the LIST Landslide Planning Map indicates that the proposed Lot 2 is **not** mapped within a Landslide Hazard Band. Minor areas within Lot 1 are mapped within a medium hazard band. The mapped medium hazard bands are a minimum of 70m from the proposed subdivision boundary.

Examination of the MRT Tasmanian Landslide Map Series, Wynyard – Landslide Inventory sheet, 1:25,000 scale, indicates that the site is not located within a mapped past landslide.

3 SITE DESCRIPTION

The overall site predominantly consists of smooth convex slopes and is heavily vegetated. The proposed Lot 1 contains an existing dwelling and Lot 2 is currently vacant. The proposed lot boundary is located on smooth moderate slopes to the north and did not display any distinct signs of any recent landslide activity.

4 DISCUSSION AND CONCLUSIONS

We consider that the proposed subdivision will not increase the current landslide risk and does not require any specific hazard reduction or protection measures at the site due to the following:

- The use of the land within Lot 1 will not significantly change;
- The proposed Lot 2 and subdivision boundary will not impact on the stability of the existing dwelling/sheds within Lot 1;
- The proposed subdivision will not trigger, spread, or intensify the already existing landslide hazard;
- The proposed Lot 2 is not within a mapped Landslide Hazard Band;
- The proposed Lot 1 and Lot 2 is not located within a mapped past landslide; and
- The slopes in close proximity to the proposed lot boundary are typically smooth convex slopes and did not display any distinct signs of any recent landslide activity.

Based on the findings of the assessment we consider that the proposed subdivision would not adversely impact on the site and immediate surroundings nor increase its current assessed landslide risk. The proposed subdivision therefore is not likely to cause or contribute to the occurrence of a landslide on the site or on adjacent land.

As such, we consider that the proposed subdivision will not result in an increase in the current level of risk to warrant any specific hazard reduction or protection measures. Therefore, we consider that the proposed subdivision can be exempt under E6.4.4 of the Hazard Management Code of the Waratah-Wynyard Interim Planning Scheme 2013.

Subdivision

5 CLOSURE

Should you require further information or clarification of any details, please do not hesitate to contact Matthew Street or the undersigned.

For and on behalf of Geoton Pty Ltd



Tony Barriera

Director

Attachments: Limitations of report



Tasmania Fire Service

Bushfire Risk Unit

File No: AD3704

General Manager
Waratah-Wynyard Council
council@warwyn.tas.gov.au

Attn: Planning Department

Dear Sir/Madam,

DEVELOPMENT APPLICATION SD 2144 – 183 BACK CAM ROAD, SOMERSET – PROPOSED SUBDIVISION

I write in relation to the abovementioned development application that is currently on public exhibition. Please consider this submission as a representation on behalf of the Tasmania Fire Service.

The application seeks approval for a two-lot subdivision within the Rural Living Zone. The site is designated as being within a bushfire-prone area under the *Waratah-Wynyard Interim Planning Scheme 2013* and subsequently the application must comply with Section E1.0 Bushfire-Prone Areas Code.

A bushfire report and BHMP prepared by EnviroPlan has been provided in support of the development application. Tasmania Fire Service has the following concerns with respect to this documentation:

1. E1.6.1 – We believe that the slope assessment is significantly incorrect. The EnviroPlan report assesses the lot 1 slope to north at >10-15 degrees, our TFS assessment has it well in excess of 30 degrees, therefore the hazard management area dimensions are inadequate, not providing for BAL-19 as required by E1.6.1. This is a much greater fire risk to the site and occupants than assessed by the report.
2. As a result of this incorrect assessment, the application doesn't adequately identify the required vegetation removal. The likely true scale of required vegetation removal will be much more than is indicated.

In our view, the application material does not demonstrate compliance with the applicable development standard of the Bushfire-Prone Areas Code. It is recommended that Council does not support the proposal unless a compliant BHMP can be supplied as further information.

State Headquarters Cnr Argyle and Melville Streets | GPO Box 1526 Hobart Tasmania 7001 | Phone (03) 6173 2740
Southern Region 1040 Cambridge Road, Cambridge Tasmania 7170 | Phone (03) 6166 5500
Northern Region 339 Hobart Road Youngtown Tasmania 7249 | Phone (03) 6777 3666 | Fax (03) 6345 5860
North West Region 15 Three Mile Line | PO Box 1015 Burnie Tasmania 7320 | Phone (03) 6477 7250 Fax (03) 6433 1551

www.fire.tas.gov.au



If you would like to discuss this matter further, please contact me on 0418 356 446 or at bfp@fire.tas.gov.au.

Yours sincerely,



Chris Moore
PLANNING & ASSESSMENT OFFICER

05 October 2022

Cc Manager | Enviroplan Australia <manager@enviroplanaustralia.com.au>



Bushfire Risk

Assessment Report & Certificates

for

Graham & Leslie Hodge

183 Back Cam Road

Date of Plan

22/06/2022

EnviroPlan Australia

Michael Wells

Bushfire Accreditation No: **BFP-128**

ABN: 28 650 042 436

71a Bass Highway, Somerset

PO Box 546 Somerset, TAS 7322

Email: admin@enviroplanaustralia.com.au



Consultant Details

Mr. Micheal Wells GradDipUrbRegPlanBEnvDesDipBldg

Town Planner, Builder, Bushfire Assessor, Building Designer, Fire Engineer, (IFE) Forest Botanist (FPA)

Bushfire Accreditation No: **BFP-128**

Scope of Assessors Accreditation

Micheal Wells (**BFP-128**) is accredited by the Chief Officer of the Tasmania Fire Service under Section 60B of the *Fire Service Act 1979* for the following Scope of Works:

1. Certify a Bushfire Attack Level Assessment for **Building Work**
- 3A. Certify Acceptable Solutions for **Buildings or Extensions**
- 3B. Certify Acceptable Solutions for **Small Subdivisions** (less than 10 Lots or a single stage)
- 3C. Certify Acceptable Solutions for **Large Subdivisions** (10 lots or more or in multiple stages)

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Bushfires in Tasmania are an unpredictable natural phenomenon and preparing a Bushfire Hazard Management Plan increases your chances of defending your property and assists in the protection the people whom frequent it. This Fire Hazard Management Plan in no way guarantees immunity from a bushfire in or around your property or the effects thereof.


Any measures implemented based on the advice from *EnviroPlan Australia*, is offered as potential methods of reducing your properties risk of fire damage only and is not to be relied upon as a total solution. It in no way guarantees that any or all buildings on site will survive the effects of a bushfire nor does it guarantee the safety and security of any individuals whom frequent the property.

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Document Status

Revision No	Author	Signature	Date
1	M. Wells		1/11/2021
2	M Wells		22/06/2022

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE¹ UNDER S51(2)(d) LAND USE PLANNING AND APPROVALS ACT 1993

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:

183 Back Cam Road, Somerset, Tasmania 7322

Certificate of Title / PID:

CT: 105238 / 1 , PID: 7902963

2. Proposed Use or Development

Description of proposed Use and Development:

Proposed Subdivision and Dwelling

Applicable Planning Scheme:

Waratah-Wynyard Interim Planning Scheme 2013

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Proposed Dwelling & Subdivision	EnviroPlan	28/08/2020	

¹ This document is the approved form of certification for this purpose and must not be altered from its original form

Planning Certificate from a Bushfire Hazard Practitioner v5.0

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

<input type="checkbox"/>	E1.4 / C13.4 – Use or development exempt from this Code
Compliance test	Compliance Requirement
<input type="checkbox"/> E1.4(a) / C13.4.1(a)	Insufficient increase in risk

<input type="checkbox"/>	E1.5.1 / C13.5.1 – Vulnerable Uses
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.5.1 P1 / C13.5.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/> E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
<input type="checkbox"/> E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

<input type="checkbox"/>	E1.5.2 / C13.5.2 – Hazardous Uses
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.5.2 P1 / C13.5.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/> E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
<input type="checkbox"/> E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

<input checked="" type="checkbox"/>	E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/> E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
<input checked="" type="checkbox"/> E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')
<input type="checkbox"/> E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

<input checked="" type="checkbox"/>	E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.2 P1 / C13.6.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

<input type="checkbox"/>	E1.6.3 / C13.6.3 Subdivision: Provision of water supply for fire fighting purposes	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
<input type="checkbox"/>	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
<input type="checkbox"/>	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

Enclosure 3 Updated bushfire report & plan

5. Bushfire Hazard Practitioner

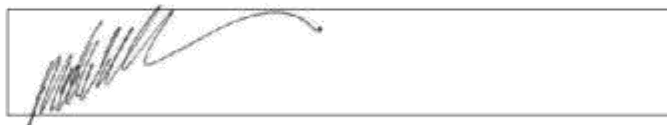
Name:	Micheal Wells	Phone No:	03 6411 1931
Postal Address:	PO Box 546, Somerset TAS 7322	Email Address:	admin@enviropianastralia.com.au
Accreditation No:	BFP – 128	Scope:	1, 3A, 3B & 3C

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

- ☐ Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or
- ☒ The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier



Name: Micheal Wells **Date:** 22/06/2022

Certificate Number: 220132 – 5

(for Practitioner Use only)

Section 2



The Land – Site

Title & Description

Phone Contact: 0474 656 216
Land Owners: Graham & Leslie Hodge
Owners Agent: EnviroPlan
Property Location: 183 Back Cam Road, Somerset Tasmania 7322
Property ID: 7902963
Certificate of Title: CT: 105238- 1
Lot Size: 11.1 ha (111000 m²)
Council: Waratah-Wynyard Council
Class of Building: 1a
Type of Building: Dwelling
Description of Work: Proposed Subdivision and Dwelling
Referenced Documents:

Drawn By	Plan No	Revision No	Date
EnviroPlan	220132 - A01 to A04		20/08/2020

Aerial Image of Site



Figure 1 – Location of land 183 Back Cam Road, Somerset

The 11.1 ha (111000 m²) property fronts onto Back Cam Road and is located on the eastern side of the road.

Existing Use and Development

The current use of land is residential use with a house and associated sheds located on the property.

Site Analysis

Topography

The land falls from South to North with a ridgeline intersecting the allotment to the eastern portion of the lot where the land falls to the north and south toward the river.

Access

The existing site access to the subject land is off Back Cam Road via a formed rural roads crossover and does not require further upgrades as part of this development.

In order to be compliant – all site accesses must be in accordance with AS/NZ 2890.1 - *Parking Facilities - Off-Street Car Parking* and in particular *Section 3 Access Facilities to Off-Street Parking Areas and Queuing Areas*.

Road Class Descriptions & Conclusion:

(AADT = Annual Average Daily Traffic Volume)

4A: Main Road (>150 AADT)

- All weather road predominately two lane and unsealed; can be sealed if economically justified;
- Operating speed of 50-80 km/h according to terrain; and
- Minimum carriage width of 7m.

4B: Minor Road (150-50 AADT)

- All weather two lane road formed and gravelled or single lane sealed road with gravel shoulders;
- Operating speed of 30-70 km/h according to terrain; and
- Minimum carriage width of 5.5m

4C: Minor Road (50 – 10 AADT)

- Substantially a single lane two way dry weather formed (natural materials) track/road;
- Operating speed of 20-40 km/h according to terrain; and
- Minimum carriage width of 4m.

The RTA Guidelines (Guide to Traffic Generating Developments) average daily residential dwelling rates for vehicle movements at **9.0** / dwelling with a weekday hourly rate of **0.85** / dwelling.

The road corridor width is 19 m with a formed construction of 8.5 m (including shoulders) supporting the 4b road construction.

The road is constructed to Municipal Standards for public access and is constructed to accommodate large vehicle volumes for safe vehicular passage. The road can easily accommodate the increase in AADT placed by the proposal and does not pose a detriment to the safe access/egress for occupants, fire or other emergency personnel.

Water Services

The following best describes to available services to the site and any mitigation measures required by the development:

- Reticulated water services are not located within the vicinity of the site and therefore bulk on-site water storage facilities are required for this proposal in accordance with the Schedule 1 of this Plan.
- Bulk on-site water storage facilities required for firefighting purposes should be suitably sized to ensure 10,000 litres of water is stored as a dedicated firefighting supply and held in reserve. Potable supplies must be in addition to this requirement.



- Lands to the north are bushland;
- East bushland;
- South is are residential uses; and
- West are residential uses.

Figure 4 – TanVEG 4.0 Fire Attributes of land 163 Black Cam Road, Somerset (source: www.theLIST.iea.gov.au/)

Vegetation Group	Fire Sensitivity / Flammability
Dry Eucalypt Forest and Woodland	H Flammability, L Sensitivity
Agricultural, Urban and Exotic Vegetation	N Flammability, N Sensitivity
Wet Eucalypt Forest and Woodland	ML Flammability, H Sensitivity

Forest

Generalised Description of the types of vegetation:

Forest:	<i>Open tree canopy dominated by eucalypt species (typically >10m in height) with crowns that touch or overlap. Canopy allows most sunlight to penetrate supporting growth of a prominent understorey layer varying between hard-leaved shrubs to luxuriant soft leaved shrubs, ferns and herbs.</i>
Woodland:	<i>Dominated by an open to sparse layer of eucalypts with the crowns rarely touching. Typically 15-35m high (may be shorter at sub-alpine altitudes). Diverse ground cover of grasses and herbs. Shrubs are sparsely distributed. Usually found on flat to undulating ground.</i>
Tall Heath (Scrub):	<i>Shrubby vegetation greater than 2 metres tall. Principal plant species include banksias, spider flowers, wattles, legumes, eucalypts, tea-trees, paper barks, she oaks, grass trees, cord rushes and sedges. Grasses are scarce. Not found in arid and semi arid locations. Includes Hawkesbury Sandstone vegetation with scattered over-storey trees and predominantly healthy understorey and coastal heath. May include some mallee eucalypts in coastal locations.</i>
Short Heath (Open Shrub):	<i>Shrubby vegetation less than 2 metres in height. Often more open in canopy. Principal plant species include banksias, spider flowers, wattles, legumes, eucalypts, tea-trees, paper barks, she oaks, grass trees, cord rushes and sedges. Grasses are scarce. Not found in arid and semiarid locations.</i>
Rainforest:	<i>Closed and continuous complex tree canopy composed of relatively soft, horizontally-held leaves. Generally lacking in eucalypts. Understorey typically includes ferns and herbs. Vines often present in canopy or understorey. Occur mainly in areas that are reliably moist, mostly free of fire and have soils of moderate to high fertility. Typically coastal and escarpment locations.</i>
Grassland:	<i>Dominated by perennial grasses and the presence of broad-leaved herbs on flat topography. Lack of woody plants. Plants include grasses, daisies, legumes, geraniums, saltbushes and Copperburrs.</i>
Managed Land:	<i>Non-vegetated or reduced vegetation areas such as: actively grazed pastures, maintained urban yards, maintained lawns, crops, orchards, vineyards, commercial nurseries, playing fields, golf course fairways, cleared parks, non-vegetated areas, formed roads and footpaths including cleared verges, waterways, etc.</i>

Proposal

The developer/s, Graham & Leslie Hodge seeks to construct a Proposed Subdivision and Dwelling.

The proposal is a 2 lot subdivision of land with a dwelling and shed located on lot 1. Lot 2 contains a new dwelling and shed as part of this proposal.

Intended Purpose of Plan

The plan is intended to satisfy the provisions of the Building Act 2016, including transitional Arrangements Building Regulations 2014 (Part 1A) and National Construction Code 2019.

Purpose

The purpose of this bushfire assessment report is to identify the Bushfire Attack Level (BAL) in accordance with AS 3959-2009 & 2018 Construction of Buildings in Bushfire Prone Areas, and Guidelines for Development in Bushfire Prone Areas of Tasmania 2005.

The BAL will enable the appropriate construction method and applicable construction requirements for the proposed building works to be designed in accordance with AS 3959-2009 & 2018, Part 3.7.4, 3.7.4.1 and 3.7.4.2 of the National Construction Code Amendment 2013, Building Act 2016, including transitional Arrangements Building Regulations 2014 (Part 1A) and National Construction Code 2019 and the Guidelines for Development in Bushfire Prone Areas of Tasmania.

General Information - Fire Danger Index:

The Fire Danger Index (FDI) is a measure of the probability of a bushfire starting, its rate of spread, intensity and the difficulty of extinguishment according to combinations of temperature, relative humidity, wind speed and available fuels, all of which is influenced by daily rainfall events and the time elapsed between such rainfall events.

The **FDI** in Tasmania is **50**.



Applicable Standard to which the plan relates

E1.6.1 / C13.6.1 Subdivision – Provision of Hazard Management Areas

The proposal provides for sufficient separation from building areas and bushfire-prone vegetation which reduces heat transfer and ember attack and provides protection for all lots contained within the proposal.

Objective <i>Subdivision provides for hazard management areas that:</i> <ul style="list-style-type: none"> a) facilitate an integrated approach between subdivision and subsequent building on a lot; b) provide for sufficient separation of building areas from bushfire-prone vegetation to reduce the radiant heat levels, direct flame attack and ember attack at the building area; and c) provide protection for lots at any stage of a staged subdivision. 	
Acceptable Solutions A1 <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of hazard management areas as part of a subdivision; or (b) The proposed plan of subdivision: <ul style="list-style-type: none"> i. shows all lots that are within or partly within a bushfire-prone area, including those developed at each stage of a staged subdivisions; ii. shows the building area for each lot; iii. shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of Australian Standard AS 3959 – 2009 Construction of Buildings in Bushfire Prone Areas; and iv. is accompanied by a bushfire hazard management plan for each individual lot, certified by the TFS or accredited person, showing hazard management areas greater than the separation distances required for BAL 19 in Table 2.4.4 of Australian Standard AS 3959 – 2009 Construction of Buildings in Bushfire Prone Areas; and (c) If hazard management areas are to be located on land external to the proposed subdivision the application is accompanied by the written consent of the owner of that land to enter into an agreement under section 71 of the Act that will be registered on the title of the neighbouring property providing for the affected land to be managed in accordance with the bushfire hazard management plan. 	Performance Criteria P1 <i>A proposed plan of subdivision shows adequate hazard management areas in relation to the building areas shown on lots within a bushfire-prone area, having regard to:</i> <ul style="list-style-type: none"> (a) the dimensions of hazard management areas; (b) a bushfire risk assessment of each lot at any stage of staged subdivision; (c) the nature of the bushfire-prone vegetation including the type, fuel load, structure and flammability; (d) the topography, including site slope; (e) any other potential forms of fuel and ignition sources; (f) separation distances from the bushfire-prone vegetation not unreasonably restricting subsequent development (g) an instrument that will facilitate management of fuels located on land external to the subdivision; and (h) any advice from the TFS.
Performance: Discussion: Complies with A1(b) above.	Acceptable Solution Satisfied

E1.6.2 / C13.6.2 Subdivision: Public and Fire Fighting Access

Objective Access roads to, and the layout of roads, tracks and trails, in a subdivision: <ul style="list-style-type: none"> (a) allow safe access and egress for residents, firefighters and emergency service personnel; (b) provide access to the bushfire-prone vegetation that enables both property to be defended when under bushfire attack and for hazard management works to be undertaken; (c) are designed and constructed to allow for fire appliances to be manoeuvred; (d) provide access to water supplies for fire appliances; and (e) are designed to allow connectivity, and where needed, offering multiple evacuation points. 	
Acceptable Solutions A1 <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant specific measures for public access in the subdivision for the purposes of fire fighting; or (b) A proposed plan of subdivision showing the layout of roads, fire trails and the location of property access to building areas is included in a bushfire hazard management plan that: <ul style="list-style-type: none"> i. Demonstrates proposed roads will comply with Table E1, proposed private accesses will comply with Table E2 and proposed fire trails will comply with Table E3; and ii. Is certified by the TFS or an accredited person. 	Performance Criteria P1 A proposed plan of subdivision shows access and egress for residents, fire-fighting vehicles and emergency service personnel to enable protection from bushfires having regard to: <ul style="list-style-type: none"> (a) appropriate design measures, including: <ul style="list-style-type: none"> i. two way traffic; ii. all weather surfaces; iii. height and width of any vegetation clearances; iv. load capacity; v. provision of passing bays; vi. traffic control devices; vii. geometry, alignment and slope of roads, tracks and trails; viii. use of through roads to provide for connectivity; ix. limits on the length of cul-de-sacs and dead-end roads; x. provision of turning areas; xi. provision for parking areas; xii. perimeter access; and xiii. fire trails; (b) the provision of access to: <ul style="list-style-type: none"> i. bushfire-prone vegetation to permit the undertaking of hazard management works; and ii. fire fighting water supplies; and (c) any advice from the TFS.
Performance: Discussion: Complies with A1(b) above and Table E2.	Acceptable Solution Satisfied

Table E1 / C13.1 – Standards for Roads

Element	Requirement
Roads	Unless the development standards in the zone require a higher standard, the following apply: <ul style="list-style-type: none"> a) Two-wheel drive, all-weather construction; b) Load capacity of at least 20 tonnes, including for bridges and culverts; c) Minimum carriageway width is 7 metres for a through road, or 5.5 metres for a dead-end or cul-de-sac road; d) Minimum vertical clearance of 4 metres; e) Minimum horizontal clearance of 2 metres from the edge of the carriageway; f) Cross falls of less than 3 degrees (1:20 or 5%); g) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; h) Curves have a minimum inner radius of 10 metres; i) Dead-end or cul-de-sac roads are not more than 200 metres in length unless the carriageway is 7 metres in width; j) Dead-end or cul-de-sac roads have a turning circle with a minimum 12 metres outer radius; and k) Carriageways less than 7 metres wide have 'No Parking' zones on one side, indicated by a road sign that complies with AS1743-2001 Road signs-Specifications.

Table E2 / C13.2 – Standards for Property Access

Element	Requirement
A Property access length is less than 30 metres; or access is not required for a fire appliance to access a water connection point	There are no specified design and construction requirements.
B Property access length is 30 metres or greater; or access for a fire appliance to a water connection point.	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 degrees (1:20 or 5%); g) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; h) Curves with a minimum inner radius of 10 metres; i) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and j) Terminate with a turning area for fire appliances provided by one of the following: i. A turning circle with a minimum inner radius of 10 metres; or ii. A property access encircling the building; or iii. A hammerhead 'T' or 'Y' turning head 4 metres wide and 8 metres long
C Property access length is 200 metres or greater.	The following design and construction requirements apply to property access: a) The Requirements for B above; and b) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.
D Property access length is greater than 30 metres, and access is provided to 3 or more properties.	The following design and construction requirements apply to property access: a) Complies with Requirements for B above; and b) Passing bays of 2 metres additional carriageway width and 20 metres length must be provided every 100 metres.

Table E3 / C13.3 – Standards for Fire Trails

Element	Requirement
A All Fire Trails	The following design and construction requirements apply: a) All-weather, 4-wheel drive 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 2 metres from the edge of the carriageway; f) Cross falls of less than 3 degrees (1:20 or 5%); g) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; h) Curves with a minimum inner radius of 10 metres; i) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed fire trails, and 10 degrees (1:5.5 or 18%) for unsealed fire trails; j) Gates if installed at fire trail entry, have a minimum width of 3.6 metres, and if locked, keys are provided to TFS; and k) Terminate with a turning area for fire appliances provided by one of the following: i. A turning circle with a minimum radius of 10 metres; and ii. A hammerhead 'T' or 'Y' turning head 4 metres wide and 8 metres long.
B Fire trail length is 200 metres or greater.	The following design and construction requirements apply: a) The requirements for A above; and

	b) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.
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E1.6.3 / C13.6.3 Subdivision – Provision of Water Supply for Fire Fighting Purposes

Objective Adequate, accessible and reliable water supply for the purposes of fire fighting can be demonstrated at the subdivision stage and allow for the protection of life and property associated with the subsequent use and development of bushfire-prone areas	
Acceptable Solutions	Performance Criteria
A1 In areas serviced with reticulated water by the water corporation: (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of a water supply for fire fighting purposes; (b) A proposed plan of subdivision showing the layout of fire hydrants, and building areas, is included in a bushfire hazard management plan approved by the TFS or accredited person as being compliant with Table E4; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.	P1 No Performance Criteria
Performance:	Not Applicable
Discussion: The proposal is not in a reticulated area and therefore the provision is not applicable.	
Acceptable Solutions	Performance Criteria
A2 In areas that are not serviced by reticulated water by the water corporation: (a) The TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant provision of a water supply for firefighting purposes; or (b) The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that static water supply, dedicated to fire fighting, will be provided and located compliant with Table E5; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for firefighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.	P2 No Performance Criteria
Performance:	Acceptable Solution Satisfied
Discussion: Complies with A1 (b) above and Table E5.	

Table E4 / C13.4 – Reticulated Water Supply for Fire Fighting

Element	Requirement
A Distance between	The following requirements apply:

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<i>building area to be protected and water supply</i>	<p>a) The building area to be protected must be located within 120 metres of a fire hydrant; and</p> <p>b) The distance must be measured as a hose lay, between the water connection point and the furthest part of the building area.</p>
B <i>Design criteria for fire hydrants</i>	<p>The following requirements apply:</p> <p>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 2nd Edition; and</p> <p>b) Fire hydrants are not installed in parking areas.</p>
C <i>Hardstand</i>	<p>A hardstand area for fire appliances must be provided:</p> <p>a) No more than 3 metres from the hydrant, measured as a hose lay;</p> <p>b) No closer than 6 metres from the building area to be protected;</p> <p>c) With a minimum width of 3 metres constructed to the same standard as the carriageway; and</p> <p>d) Connected to the property access by a carriageway equivalent to the standard of the property access.</p>

Table E5 / C13.5 – Static Water Supply for Fire Fighting

Element	Requirement
A <i>Distance between building area to be protected and water supply</i>	<p>The following requirements apply:</p> <p>a) The building area to be protected must be located within 90 metres of the water connection point of a static water supply; and</p> <p>b) The distance must be measured as a hose lay, between the water connection point and the furthest part of the building area.</p>
B <i>Static Water Supplies</i>	<p>A static water supply:</p> <p>a) May have a remotely located offtake connected to the static water supply;</p> <p>b) May be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;</p> <p>c) Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;</p> <p>d) Must be metal, concrete or lagged by non-combustible materials if above ground; and</p> <p>e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by:</p> <ol style="list-style-type: none"> Metal; Non-combustible material; or Fibre-cement a minimum of 6mm thickness.
C <i>Fittings, pipework and accessories (including stands and tank supports)</i>	<p>Fittings and pipework associated with a water connection point for a static water supply must:</p> <p>a) Have a minimum nominal internal diameter of 50mm;</p> <p>b) Be fitted with a valve with a minimum nominal internal diameter of 50mm;</p> <p>c) Be metal or lagged by non-combustible materials if above ground;</p> <p>d) Where buried, have a minimum depth of 300mm (compliant with AS/NZS 3500.1-2003 Plumbing and Drainage, Part 1 Water Services Clause 5.23);</p> <p>e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment;</p> <p>f) Ensure the coupling is accessible and available for connection at all times;</p> <p>g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length);</p> <p>h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and</p> <p>i) Where a remote offtake is installed, ensure the offtake is in a position that is:</p> <ol style="list-style-type: none"> Visible; Accessible to allow connection by firefighting equipment; At a working height of 450 – 600mm above ground level; and Protected from possible damage, including damage by vehicles.

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D Signage for static water connections	<p>The firefighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:</p> <ul style="list-style-type: none"> a) Comply with water tank signage requirements within Australian Standard AS 2304-2011 Water storage tanks for fire protection systems; or b) Comply with the Tasmania Fire Service Water Supply Guideline published by the Tasmania Fire Service.
E Hardstand	<p>A hardstand area for fire appliances must be:</p> <ul style="list-style-type: none"> a) No more than 3 metres from the firefighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); b) No closer than 6 metres from the building area to be protected c) With a minimum width of 3 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.



EnviroPlan Australia
Micheal Wells
Bushfire Accreditation No: **BFP-128**

Section 3

Bushfire Attack Level (BAL) Assessment

Property Address: 183 Back Cam Road, Somerset, Tasmania 7322
Municipality: Waratah-Wynyard
Date of Assessment: 22/06/2022

Type of Work

Building Class Adopted: Not Applicable
Proposal Description: Proposed Subdivision and Dwelling

Fire Danger Index

FDI Adopted: 50

Vegetation Type

Classification Adopted: **Forest**

BAL Assessment

BAL Determination Sheet – Lot 1

EnviroPlan Australia

Micheal Wells

Bushfire Accreditation No: BFP-128

Scope of Accreditation: 1, 3A, 3B & 3C

Parent Title - PID: 7902963 CT: 105238 / 1



Classification for each side of the Site

Vegetation Class	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>	Exclusions (where applicable)
Group A - Forest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Group B - Woodland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group C - Shrubland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group D - Scrub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group E - Mallee/Mulga	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Group F - Rainforest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group G (FDI 50) - Grassland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group H - Managed Land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Vegetation Proximity

Distance to classified vegetation	Show distance in metres	Required	N	55	S	31	E	51	W	40
Existing	N	0	S	0	E	0	W	0		

Closest Exposure: 31 metres

Note: If there is no classification vegetation within 100m of the site then the BAL is LOW for that part of the site.

Land Slope

	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>
Slope under the classified vegetation				
Upslope				
Upslope/0°	<input type="checkbox"/>	Upslope/0° <input checked="" type="checkbox"/>	Upslope/0° <input type="checkbox"/>	Upslope/0° <input type="checkbox"/>
Downslope				
>0 to 5°	<input type="checkbox"/>	>0 to 5° <input type="checkbox"/>	>0 to 5° <input type="checkbox"/>	>0 to 5° <input type="checkbox"/>
>5 to 10°	<input type="checkbox"/>	>5 to 10° <input type="checkbox"/>	>5 to 10° <input type="checkbox"/>	>5 to 10° <input type="checkbox"/>
>10 to 15°	<input type="checkbox"/>	>10 to 15° <input type="checkbox"/>	>10 to 15° <input type="checkbox"/>	>10 to 15° <input type="checkbox"/>
>15 to 20°	<input checked="" type="checkbox"/>	>15 to 20° <input type="checkbox"/>	>15 to 20° <input type="checkbox"/>	>15 to 20° <input type="checkbox"/>
BAL value for each side of site	19	19	19	19

Site BAL Assessment

BAL classification adopted for site is: BAL - 19

Note 1: Site BAL is adopted from the highest BAL rating on any single exposure.

Note 2: BAL - LOW, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 & BAL - FZ (Flame Zone)

BAL Assessment

BAL Determination Sheet - Lot 2

EnviroPlan Australia
Micheal Wells

Bushfire Accreditation No: BFP-128
Scope of Accreditation: 1, 3A, 3B & 3C
Parent Title - PID: 7902963 CT: 105238 / 1



Classification for each side of the Site

Vegetation Class	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>	Exclusions (where applicable)
Group A - Forest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Group B - Woodland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group C - Shrubland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group D - Scrub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group E - Mallee/Mulga	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Group F - Rainforest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group G (FDI 50) - Grassland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group H - Managed Land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Vegetation Proximity

Distance to classified vegetation	Show distance in metres	Required	N	35	S	39	E	25	W	28
Existing		N	0	S	0	E	0	W	0	

Closest Exposure: 25 metres

Note: If there is no classification vegetation within 100m of the site then the BAL is LOW for that part of the site.

Land Slope

	N <input checked="" type="checkbox"/>	S <input checked="" type="checkbox"/>	E <input checked="" type="checkbox"/>	W <input checked="" type="checkbox"/>
Slope under the classified vegetation				
Upslope				
Upslope/0°	<input type="checkbox"/>	Upslope/0° <input checked="" type="checkbox"/>	Upslope/0° <input checked="" type="checkbox"/>	Upslope/0° <input checked="" type="checkbox"/>
Downslope				
>0 to 5°	<input checked="" type="checkbox"/>	>0 to 5° <input type="checkbox"/>	>0 to 5° <input type="checkbox"/>	>0 to 5° <input type="checkbox"/>
>5 to 10°	<input type="checkbox"/>	>5 to 10° <input type="checkbox"/>	>5 to 10° <input type="checkbox"/>	>5 to 10° <input type="checkbox"/>
>10 to 15°	<input type="checkbox"/>	>10 to 15° <input type="checkbox"/>	>10 to 15° <input type="checkbox"/>	>10 to 15° <input type="checkbox"/>
>15 to 20°	<input type="checkbox"/>	>15 to 20° <input type="checkbox"/>	>15 to 20° <input type="checkbox"/>	>15 to 20° <input type="checkbox"/>
BAL value for each side of site	19	12.5	19	19

Site BAL Assessment

BAL classification adopted for site is: BAL - 19

Note 1: Site BAL is adopted from the highest BAL rating on any single exposure.

Note 2: BAL - LOW, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 & BAL - FZ (Flame Zone).

Section 4



Bushfire Hazard Management Plan

Acceptable Solutions



Note: Specifications must be read in conjunction with the Bushfire Hazard Management Plan that accompanies this Bushfire Risk Report

GENERAL

This plan is to be read in conjunction with the bushfire risk assessment report. Ensure that all contractors and consultants are provided with a full copy of this plan. All services are to be located on site by contractors prior to commencement of works. Notify the Council Authorities and Bushfire Risk Assessor if any variation in Building Layout or Classified Vegetation occurs.

CLASSIFICATION

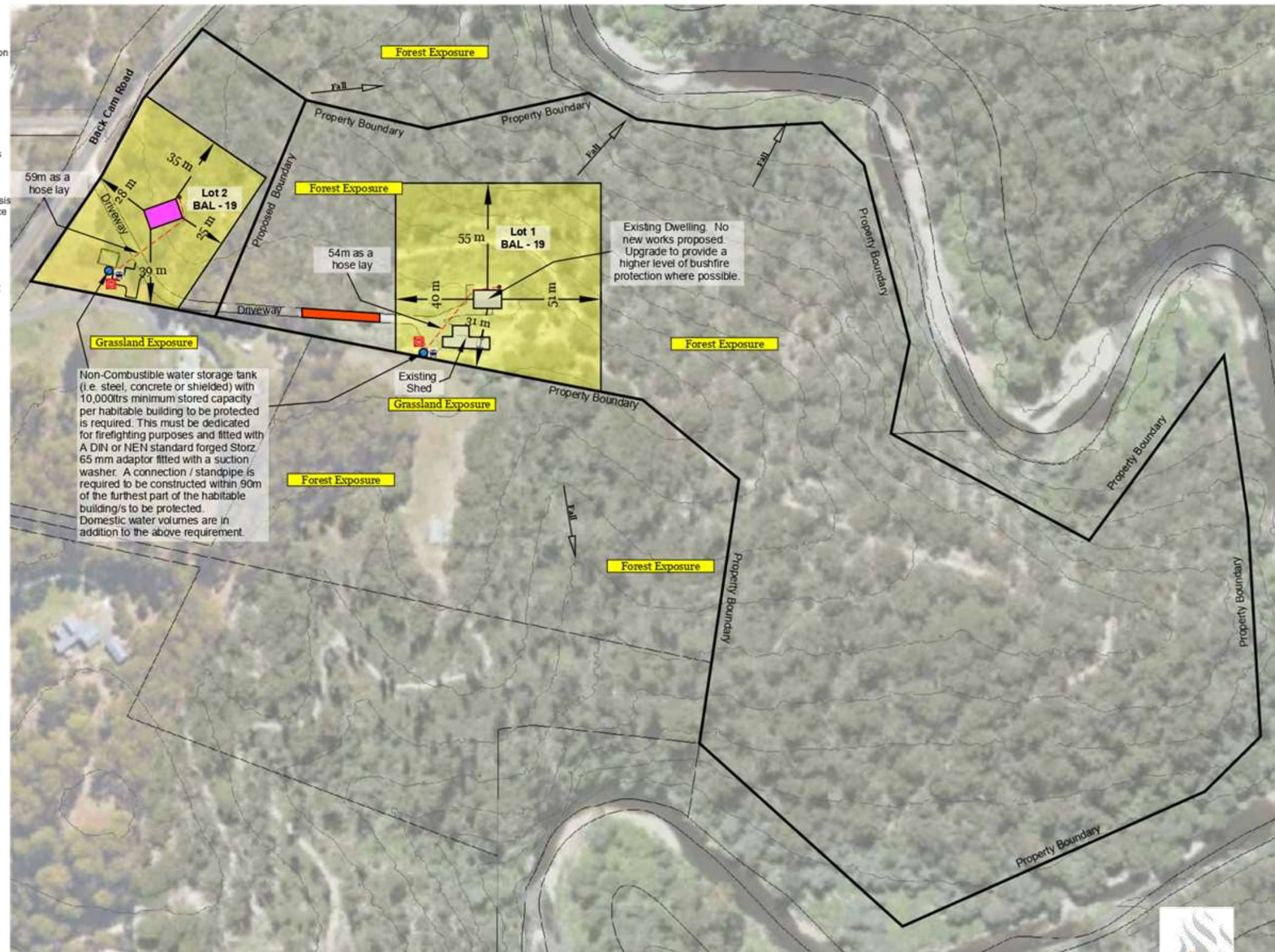
This development has BAL separation distances determined in accordance with Method 1 of Section 2.2 of AS3959:2009 & 2018 Construction of Buildings in Bushfire-Prone Areas. Separation distances between the building area and the Classified Vegetation are appropriate and in accordance with the requirements of Table 4.4(d)(1b) of the Directors Determination for Building in Bushfire-Prone Areas.

SPECIFICATIONS TO BE FOLLOWED

The Specifications featured as an annexure to this Plan form the basis of how to construct, manage and maintain the property in accordance with this Plan.

NOTE:

All works required by this Bushfire Plan must be completed prior to the Sealing of the Final Plan of Survey



Certified Plan
**BAL-As
Shown**

Michael Wells
Scope: 1, 3A, 3B & 3C
BFP-128

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SCALE @ A3
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ISSUE Date
22/06/2020 (Rev 2)

DESIGNERS DESCRIPTION:
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DESIGNERS REFERENCE NUMBERS:
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KEY INDEX - BULK WATER STORAGE REQUIREMENTS

HMA	Existing Building	Water Main	Remote Off-Take	Hard Stand Area
Building Area	Fire Hydrant	Water Tank	Passing Bay	Water Sign

Hazard Management Area (marked yellow) to be in accordance with specifications pages. Separation distances as shown. Maintain HMA in a minimum fuel condition at all times with regular maintenance from September through to March each calendar year

Demonstration of compliance for the purposes of the Bushfire Areas Code

DESCRIPTION
Bushfire Hazard Management Plan



B0.1

GENERAL

This plan is to be read in conjunction with the bushfire risk assessment report. Ensure that all contractors and consultants are provided with a full copy of this plan. All services are to be located on site by contractors prior to commencement of works. Notify the Council Authorities and Bushfire Risk Assessor if any variation in Building Layout or Classified Vegetation occurs.

CLASSIFICATION

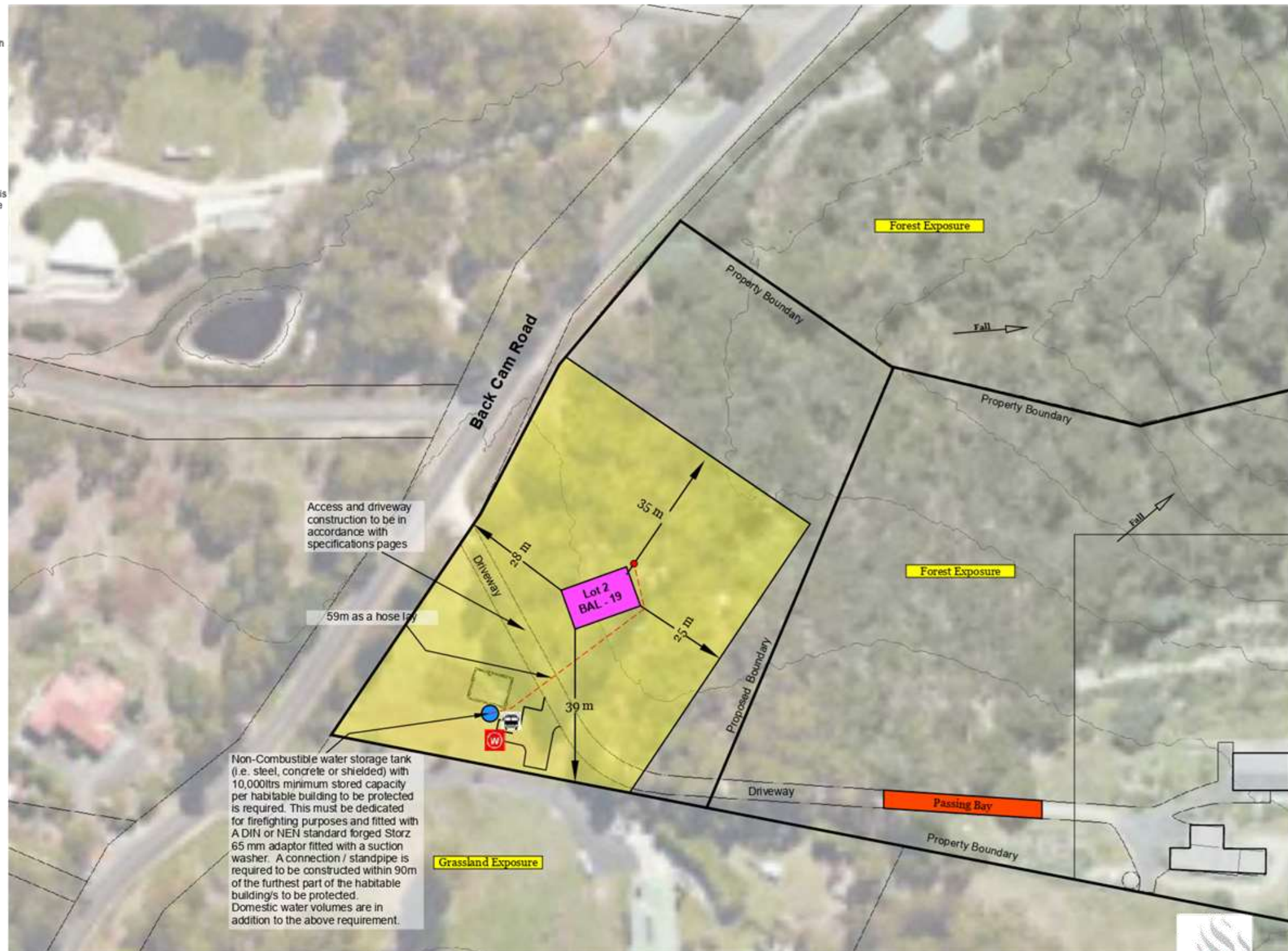
This development has BAL separation distances determined in accordance with Method 1 of Section 2.2 of AS3959:2009 & 2018 Construction of Buildings in Bushfire-Prone Areas. Separation distances between the building area and the Classified Vegetation are appropriate and in accordance with the requirements of Table 4.4(d)(1b) of the Directors Determination for Building in Bushfire-Prone Areas.

SPECIFICATIONS TO BE FOLLOWED

The Specifications featured as an annexure to this Plan form the basis of how to construct, manage and maintain the property in accordance with this Plan.

NOTE:

All works required by this Bushfire Plan must be completed prior to the Sealing of the Final Plan of Survey



Certified Plan
**BAL-As
Shown**

Michael Wells
Scope: 1, 3A, 3B & 3C
BFP-128

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DESIGNERS REFERENCE NUMBERS:
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KEY INDEX - BULK WATER STORAGE REQUIREMENTS

HMA	Existing Building	Water Main	Remote Off-Take	Hard Stand Area
Building Area	Fire Hydrant	Water Tank	Passing Bay	Water Sign

DESCRIPTION
Bushfire Hazard Management Plan



GENERAL

This plan is to be read in conjunction with the bushfire risk assessment report. Ensure that all contractors and consultants are provided with a full copy of this plan. All services are to be located on site by contractors prior to commencement of works. Notify the Council Authorities and Bushfire Risk Assessor if any variation in Building Layout or Classified Vegetation occurs.

CLASSIFICATION

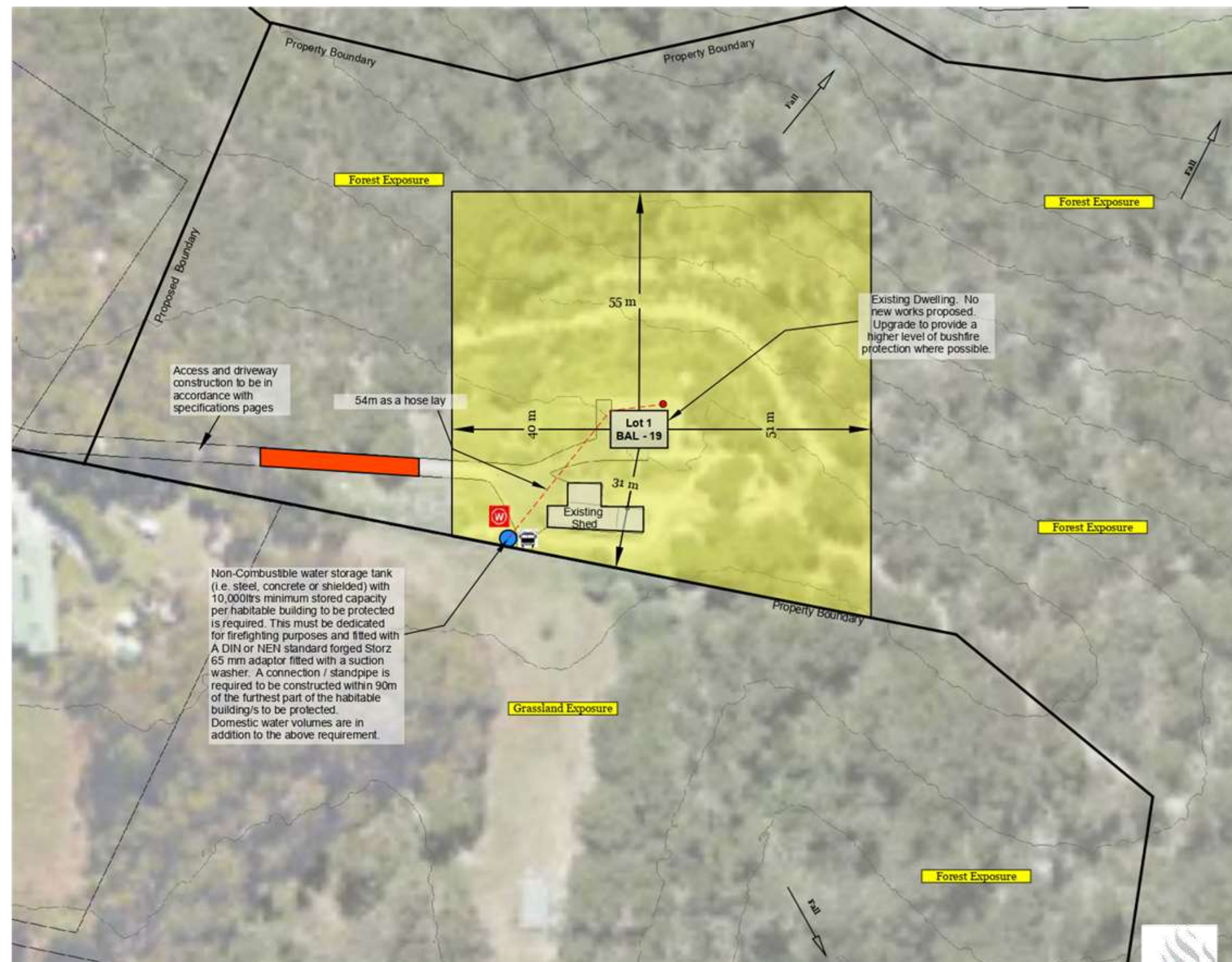
This development has BAL separation distances determined in accordance with Method 1 of Section 2.2 of AS3959:2009 & 2018 Construction of Buildings in Bushfire-Prone Areas. Separation distances between the building area and the Classified Vegetation are appropriate and in accordance with the requirements of Table 4.4(d)(1b) of the Directors Determination for Building in Bushfire-Prone Areas.

SPECIFICATIONS TO BE FOLLOWED

The Specifications featured as an annexure to this Plan form the basis of how to construct, manage and maintain the property in accordance with this Plan.

NOTE:

All works required by this Bushfire Plan must be completed prior to the Sealing of the Final Plan of Survey



Certified Plan
**BAL-As
Shown**

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Scope: 1, 3A, 3B & 3C
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Lot Number	Assessed BAL	Zoning	Existing Use	Proposed Use & Development	Hazard Management Area (marked yellow) to be in accordance with specifications pages. Separation distances as shown. Maintain HMA in a minimum fuel condition at all times with regular maintenance from September through to March each calendar year
1	19	Rural Living	Residential	Proposed Dwelling, Shed & Subdivision	

KEY INDEX - BULK WATER STORAGE REQUIREMENTS

HMA	Existing Building	Water Main	Remote Off-Take	Hard Stand Area
Building Area	Fire Hydrant	Water Tank	Passing Bay	Water Sign

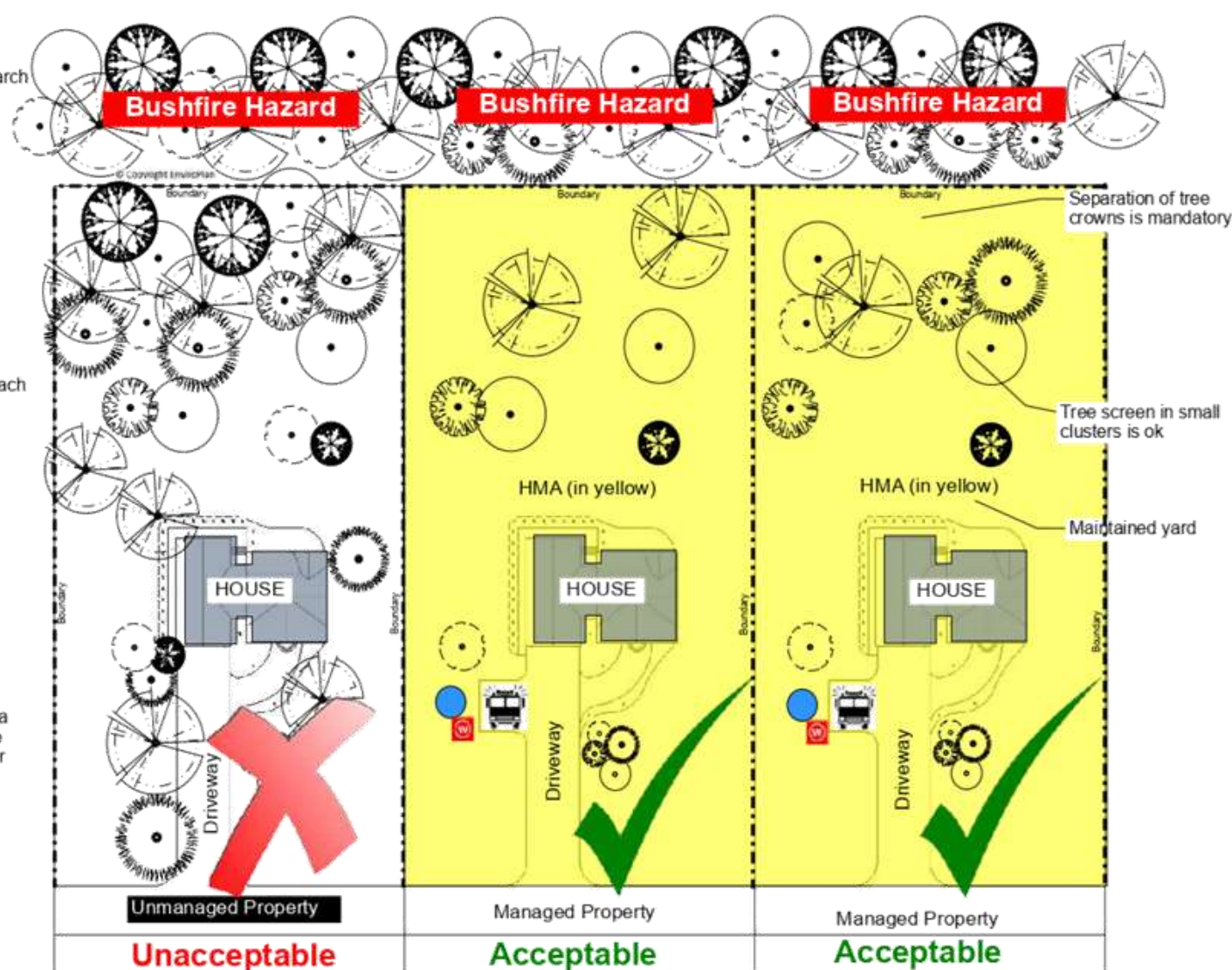
DESCRIPTION
Bushfire Hazard Management Plan



Specifications - General for Hazard Management Areas (HMA)

The following Specifications Pages detail works required to achieve compliances to the Bushfire Prone Areas requirements for Planning and Building Permits within the State of Tasmania and may differ to existing site conditions. Modifications to existing site conditions will be required in order to achieve compliance to any habitable buildings featured on the proposal plans.

- A Hazard Management Area (HMA) must be established around the habitable structure/s to be protected in accordance with the distances specified on B0.1 of this plan.
- Lawns within the HMA must be well maintained during the fire season from September through to March and kept as 'short cropped'.
- Paths and driveways must be constructed of non-combustible materials.
- Dams, uncovered water storages, orchards, vegetable gardens, waste water systems and tanks etc. should be located on the fire prone site of the proposed structure.
- Only fire retardant plants of the low flammability type (fire resisting garden plants - TFS) should be planted in the HMA.
- No vegetation must be able to fall onto the proposed structure.
- The owner/s must maintain tree crowns within the HMA to have a horizontal separation of 5m from each crown.
- Trees of significant establishment should be retained so as to create a screen to protect from radiant heat transfer and ember attack.
- The HMA must be located in accordance with the provisions of this plan.
- It is the responsibility of the land owner to maintain the landscaping in accordance with this Bushfire Hazard Management Plan.
- All paths and pedestrian areas within 1m of any habitable structure on the subject site must be constructed of non-combustible materials (i.e. stone, paving, concrete, pebbles etc).
- Vegetation along pathways should be of a low flammability type and in accordance with the Tasmania Fire Service's brochure - Fire Retardant Garden Plants. Plants that produce a lot of debris should be avoided. Trees and shrubs that retain dead material in branches, or which shed long strips of bark, or rough fibrous bark, or large quantities of leaves should be avoided.
- Vines on walls or tree canopies over roofed areas should be avoided.
- Timber, woodchip and flammable mulches cannot be used and brush and timber fencing should be avoided.
- Total shrub cover should be kept to a maximum of 20% of the available area.
- Clear space from any habitable structures of at least 4 times the mature height of any shrubs planted.
- Shrubs must not be planted in cluster forms or dumps within the HMA.
- Remove ground level fuels and trim the bottom of tree canopies to at least a height of 2m from ground level.
- Minimise ground level fuels wherever possible.



SPECIFICATIONS PAGE



Annexure
B0.4

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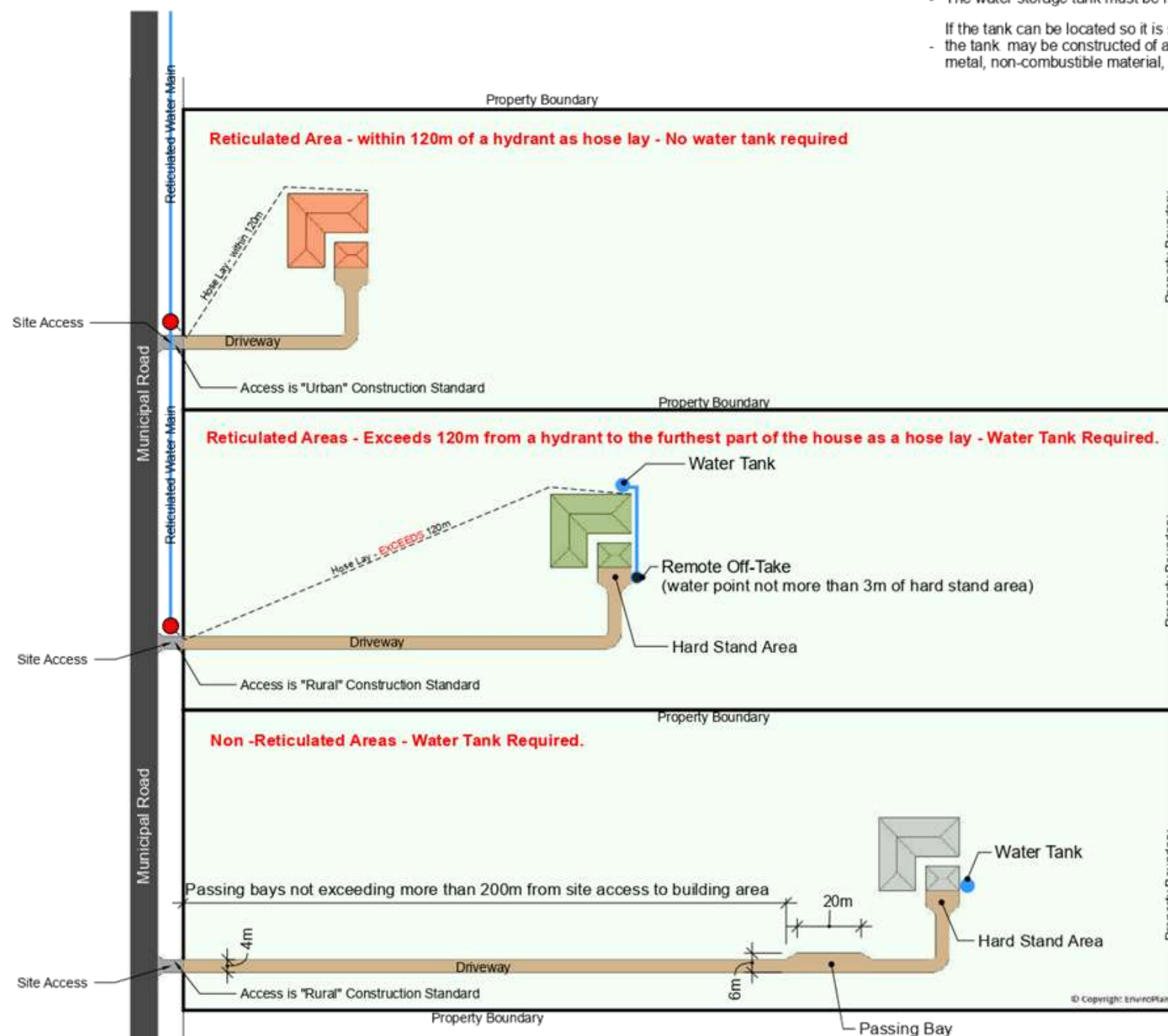
Water Supply & Access Details

Specifications - Static Water Supply - Distance to Building Area

- A static water connection point must be located within 90m of the building area
- The distance between the static water connection and the furthest part of the habitable building must be measured as a hose lay and must not exceed 120m.

Specifications - Static Water Supplies

- The bulk water supply (dam, tank, pool etc) required by this development may have a remotely located off-take that is connected to the static water supply.
- The water supply can be used for a combination use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times.
- The static water supply must be a minimum of 10,000 litres per habitable building to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems - domestic supply is in addition to this amount.
- The water storage tank must be metal, concrete or lagged by non-combustible materials if above ground.
- If the tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009 / 2018;
- the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by metal, non-combustible material, or fibre-cement sheet of a minimum of 6mm thickness.



Example Lot 1 - Bushfire Prone Area

- Hazard Management Area is required (not shown here)
- BAL rating applied to dwelling



Example Lot 2 - Bushfire Prone Area

Requires additional works

- Hazard Management Area is required (not shown here)
- BAL rating applied to dwelling
- Bulk water storages are required
- Can position tank elsewhere (conditions apply)
- Can use a remote off-take (conditions apply)



Example Lot 3 - Bushfire Prone Area

Requires additional works

- Hazard Management Area is required (not shown here)
- BAL rating applied to dwelling
- Bulk water storages are required
- Can position tank elsewhere (conditions apply)
- Can use a remote off-take (conditions apply)
- Requires passing bay/s if very long driveway

NOTE: Multiple passing bays may be required

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● Fire Hydrant ● Remote Off-Take — Water Main

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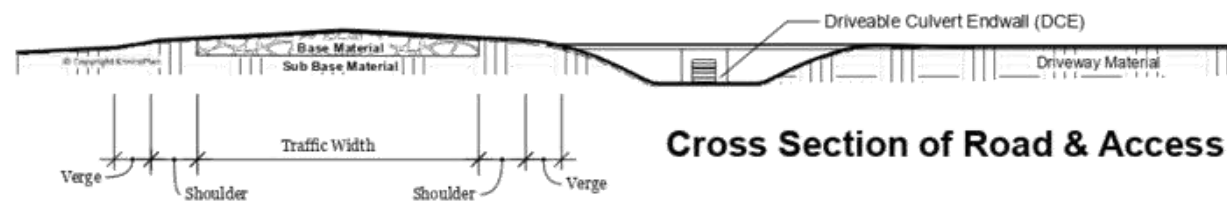
Annexure
B0.5

SPECIFICATIONS PAGE

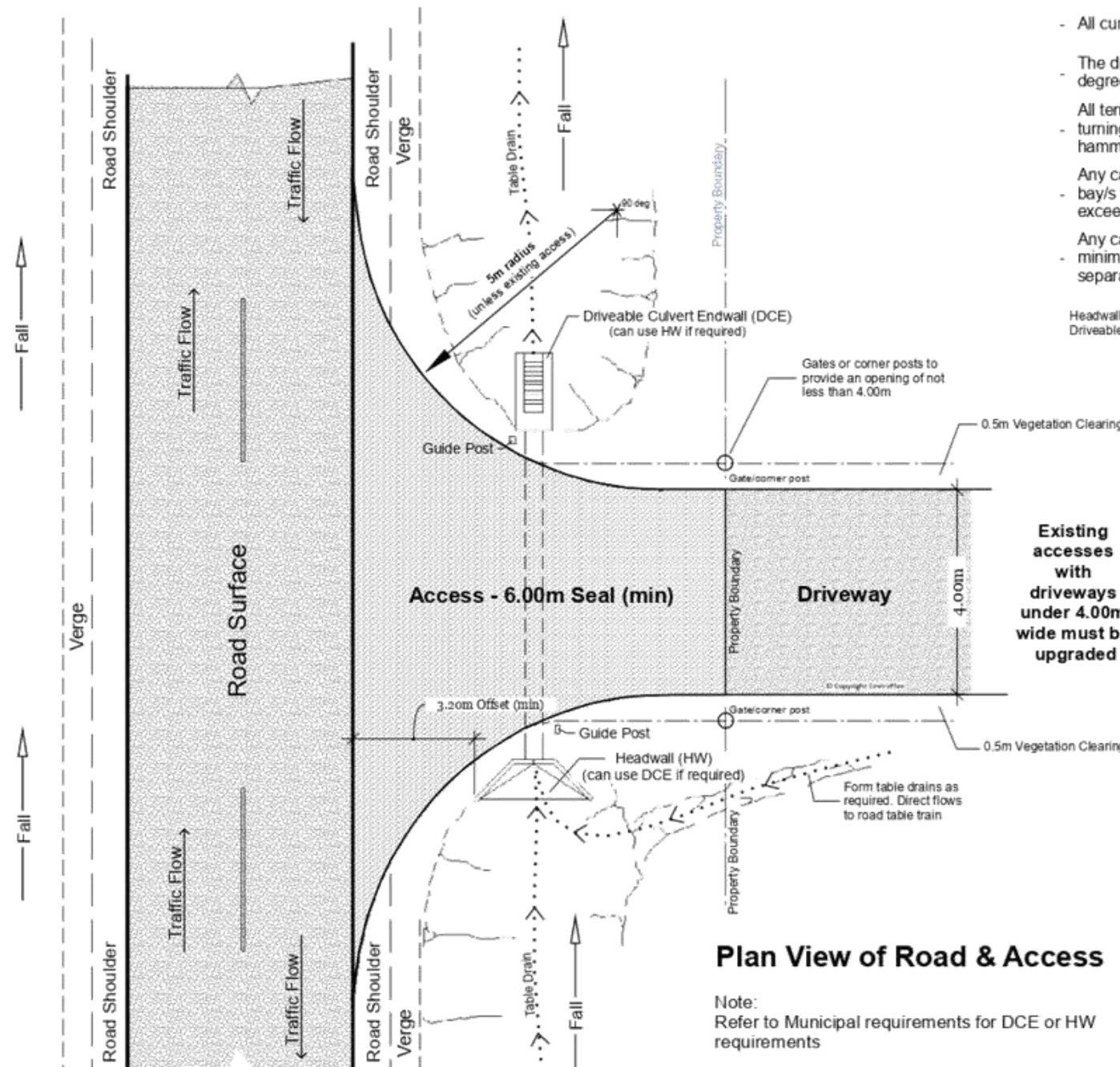
Bushfire Prone Areas Property Access Detail - Rural Construction Standard

Specifications - Property Access Exceeding 30m to Building Area

- The property access must be constructed to an all-weather construction with a load capacity of at least 20 tonnes including any bridge or culverts if applicable.
- The driveway from the access to the building area must be a minimum of 4m wide with a vertical clearance of 4m.
- The driveway must have a minimum horizontal vegetation clearance of 0.5m.
- The driveway must have cross falls of less than 3 degrees (1:20 or 5%) and dips of less than 7 degrees (1.8 or 12.5%) from an entry and exit angle.
- All curves on the driveway must contain a minimum inner radius of 10 meters.
- The driveway must have cross falls of less than 3 degrees (1:20 or 5%) and a maximum grade of 15 degrees (1:3.5 or 28%) for sealed roads and / or 10 degrees (1:5.5 or 18%) for unsealed roads.
- All terminations of driveways must be provided with a turning area for fire appliances by either a turning circle with a minimum radius of 10m, a property access encircling the habitable building or a hammerhead 'T' or 'Y' turning head 4m wide and 8m long.
- Any carriageway accessing up to 2 properties that exceeds 200m in length must provide passing bay/s with a minimum additional 2m carriageway width (6m total) and 20m in length and must not exceed 200m in separation between the site access to the building area.
- Any carriageway accessing 3 or more properties must be provided with passing bay/s with a minimum 2m carriageway width (6m total) and 20m in length and shall not exceed 100m in separation from the site access to the building area.

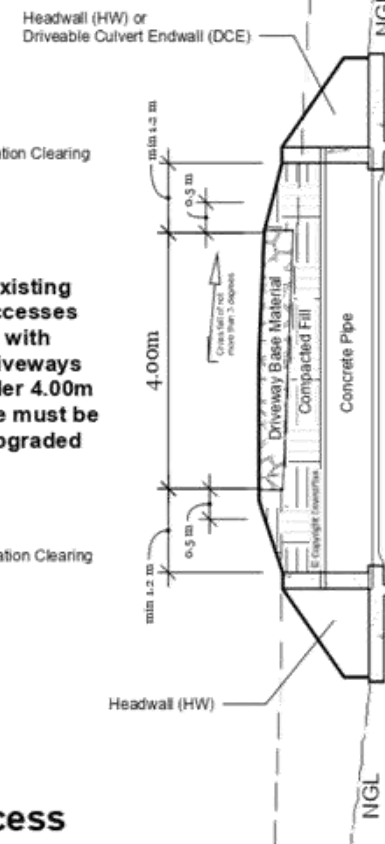


Cross Section of Road & Access



Plan View of Road & Access

Note:
Refer to Municipal requirements for DCE or HW requirements



Cross Section of Culvert & Access

Existing accesses with driveways under 4.00m wide must be upgraded

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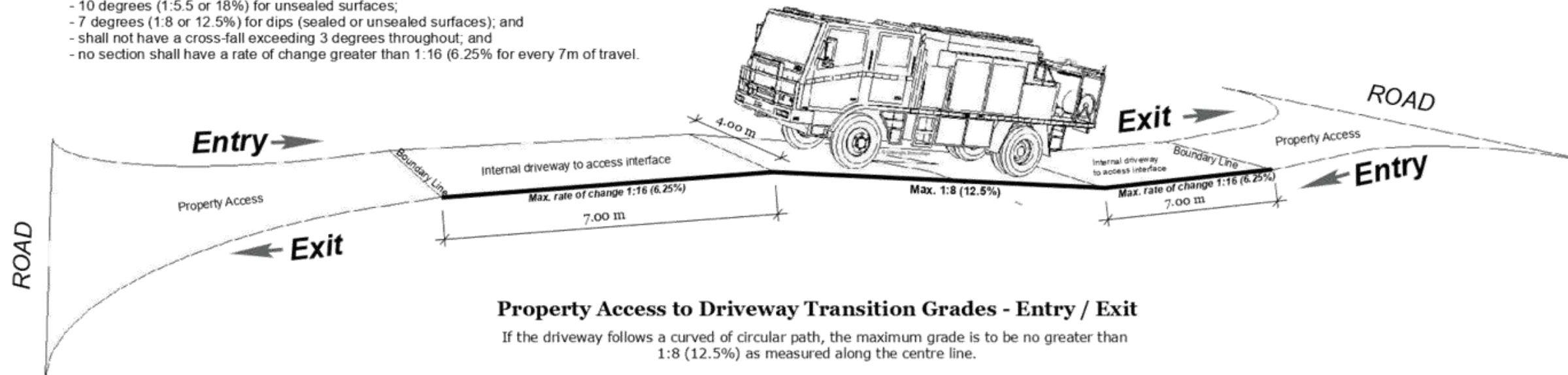
SPECIFICATIONS PAGE

Bushfire Prone areas Property Access / Driveway Interface (Rural Access) - Maximum Gradient Details

NOTE: Assessed or indicative driveway angle/s may be improved at time of construction through minor land modifications to enable greater vehicular access

The grade of the driveway is to be no steeper than:

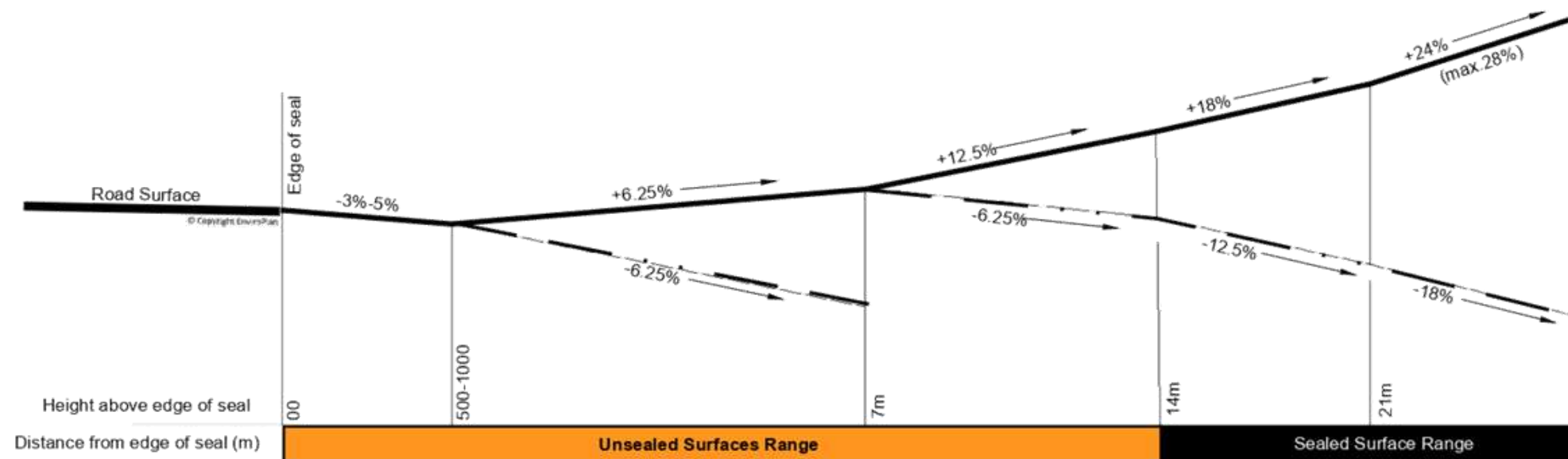
- 15 degrees (1:3.5 or 28%) for sealed surfaces;
- 10 degrees (1:5.5 or 18%) for unsealed surfaces;
- 7 degrees (1:8 or 12.5%) for dips (sealed or unsealed surfaces); and
- shall not have a cross-fall exceeding 3 degrees throughout; and
- no section shall have a rate of change greater than 1:16 (6.25%) for every 7m of travel.



Property Access to Driveway Transition Grades - Entry / Exit

If the driveway follows a curved or circular path, the maximum grade is to be no greater than 1:8 (12.5%) as measured along the centre line.

The driveway transition grades between entry and exit must have a maximum rate of change of 1:16 (6.25%) for every 7m of travel.



Rural Driveway Profile - Max. Gradients

Culvert removed for clarity

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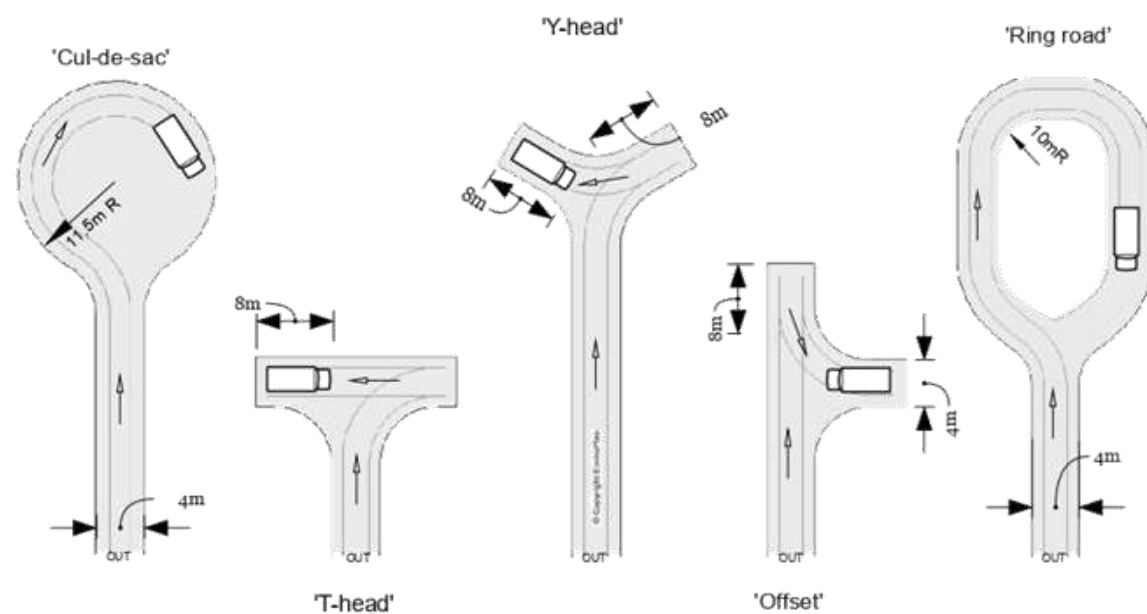
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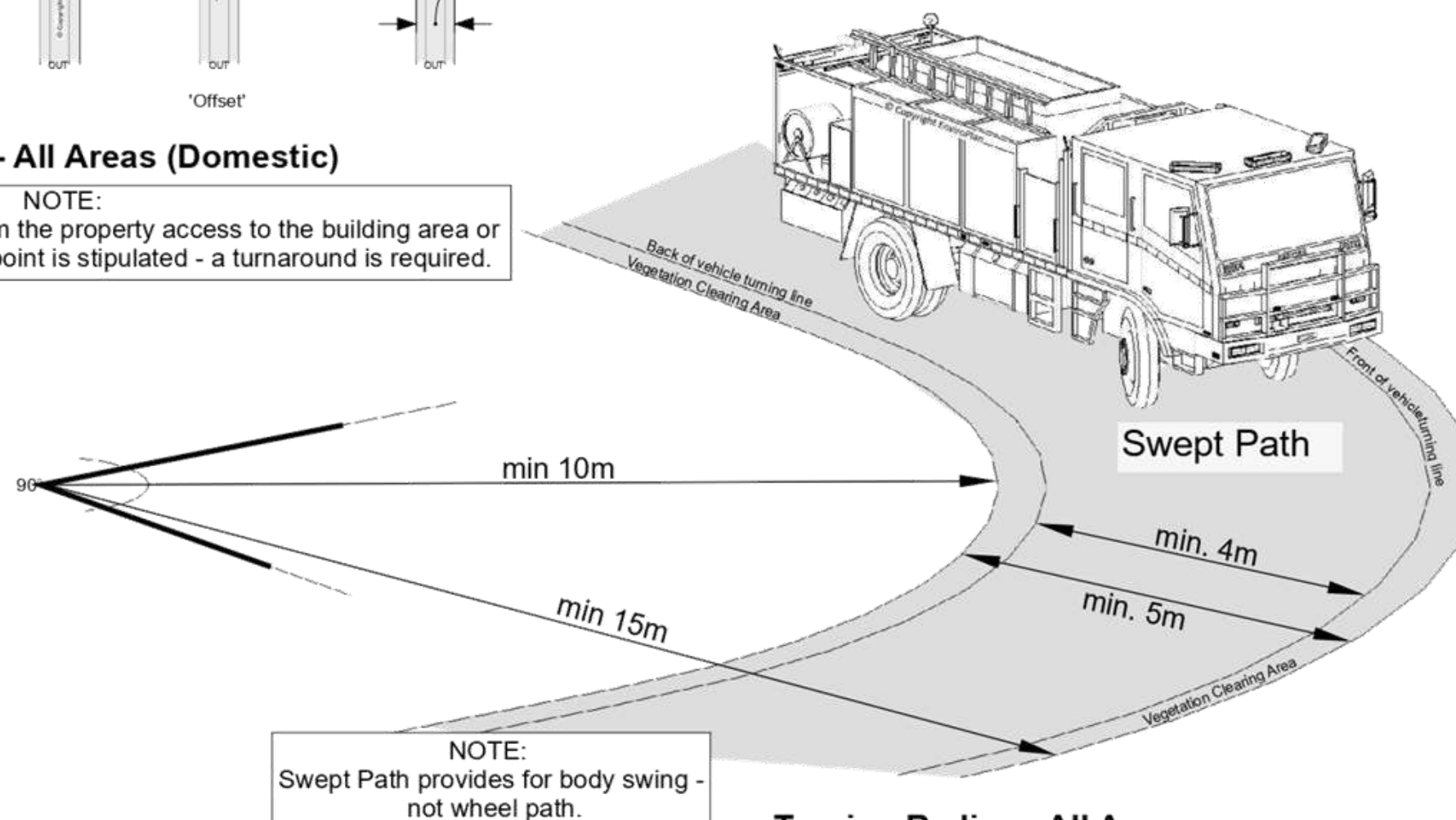
Bushfire Prone Areas Property Driveways & Fire Trails



Appropriate turning areas for all internal access driveways
- min 4m driveway width
- min 8m long turning head
- min 10m inner radius on all driveway turns

Turnaround - All Areas (Domestic)

NOTE:
All driveways exceeding 30m from the property access to the building area or where a bulk water connection point is stipulated - a turnaround is required.



NOTE:
Swept Path provides for body swing - not wheel path.

Turning Radius - All Areas

Turning Radius for all internal access driveways

SPECIFICATIONS PAGE



Annexure
B0.8

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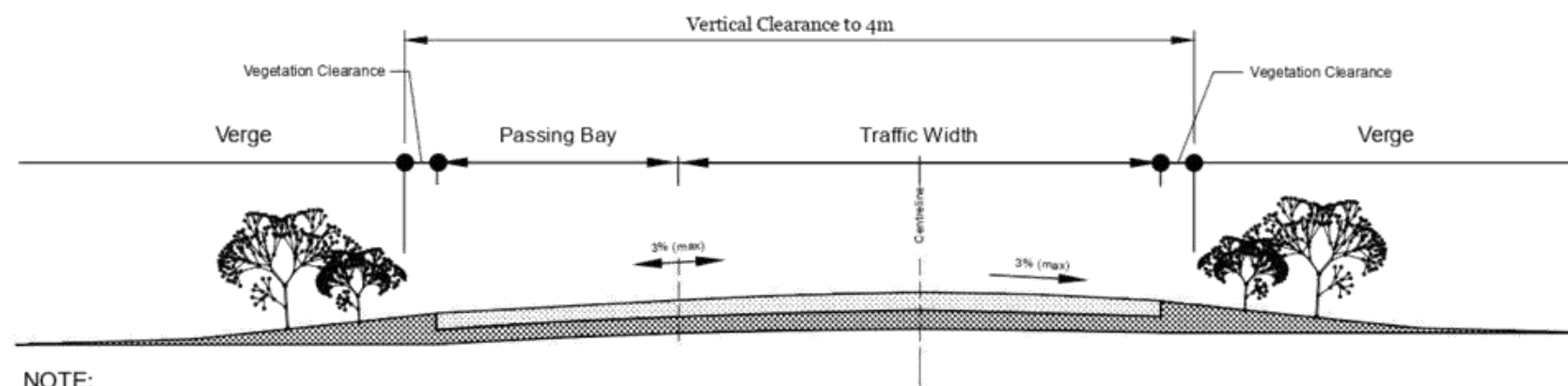
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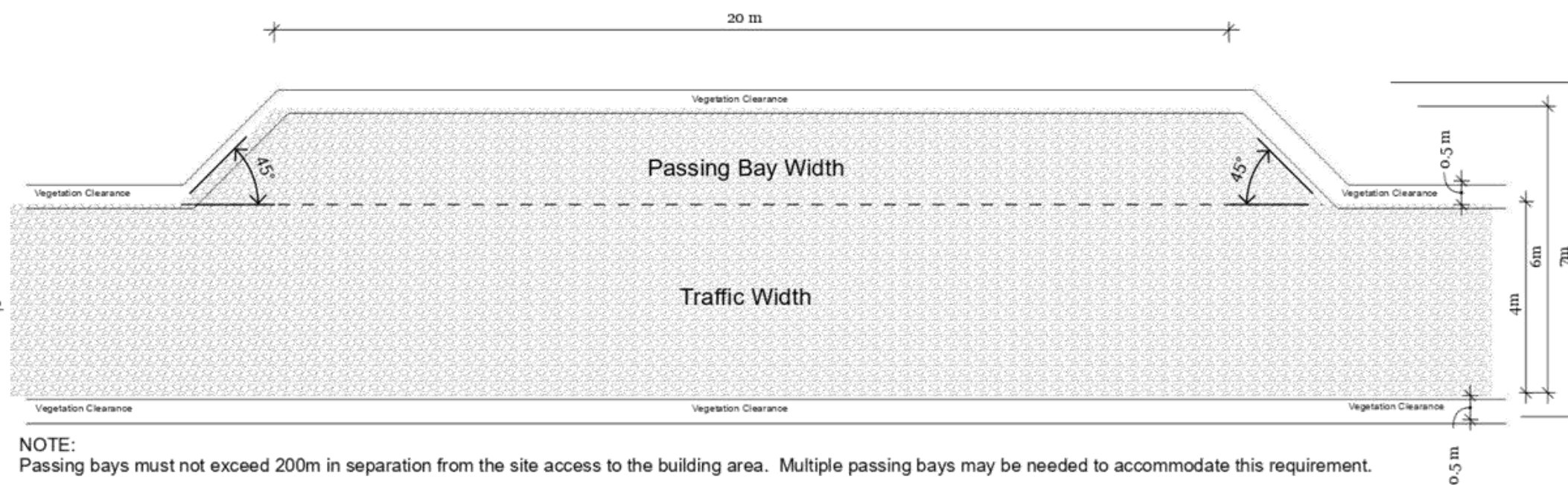
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Bushfire Prone Areas Property Passing Bay's (Internal Accesses)



NOTE:
Surface type to be determined with consideration to vehicle types, turning movement, location and grade

Passing Bay Typical Cross Section



NOTE:
Passing bays must not exceed 200m in separation from the site access to the building area. Multiple passing bays may be needed to accommodate this requirement.

Any property access that services 3 or more properties must provide passing bays not exceeding 100m in separation from the site access to the building area. Multiple passing bays may be needed to accommodate this requirement.

Passing Bay Detail

1 Passing Bay Typical Cross Section
Scale: 1:50



Annexure
B0.9

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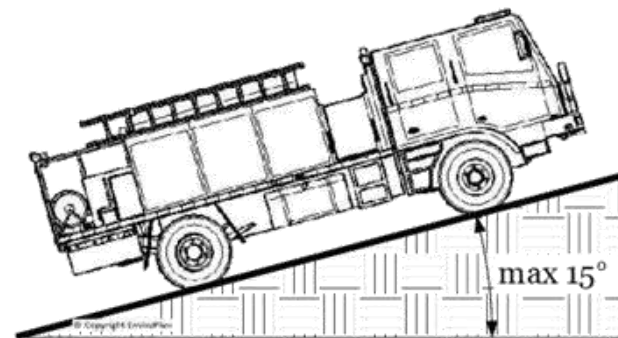
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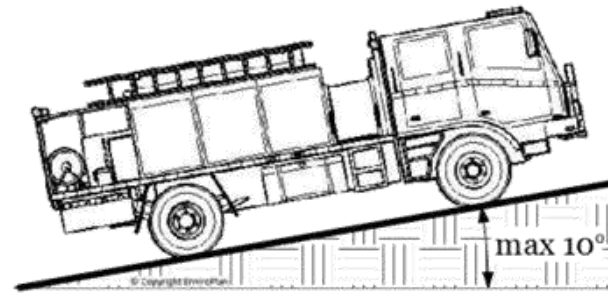
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Bushfire Prone Areas Property Driveways & Fire Trails (cont)



Sealed Surface Gradient

sealed driveways & roads shall not exceed a maximum grade 15 degrees (1:3.5 or 28%)



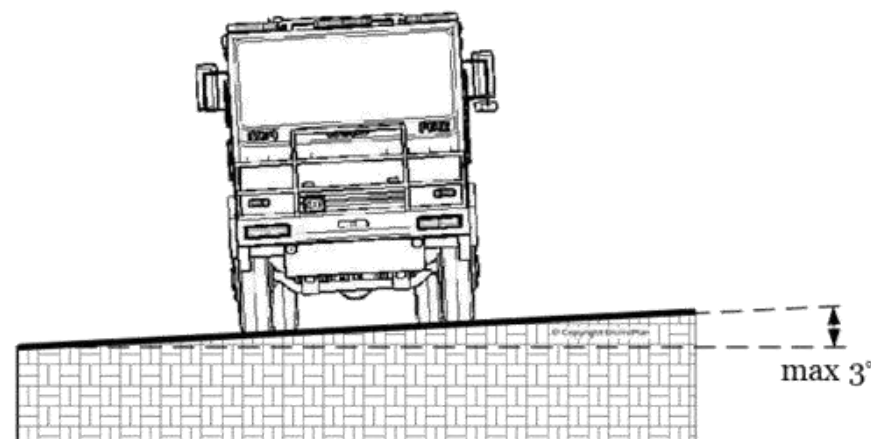
Un-sealed Surface Gradient

unsealed driveways & roads shall not exceed a maximum grade 10 degrees (1:5.5 or 18%)



Dips Gradient

dips shall not exceed a maximum entry and exit angle of 7 degrees (1:8 or 12.5%) and the cross-fall gradient shall not exceed a maximum grade 3 degrees (1:20 or 5%)



Cross-fall Gradient

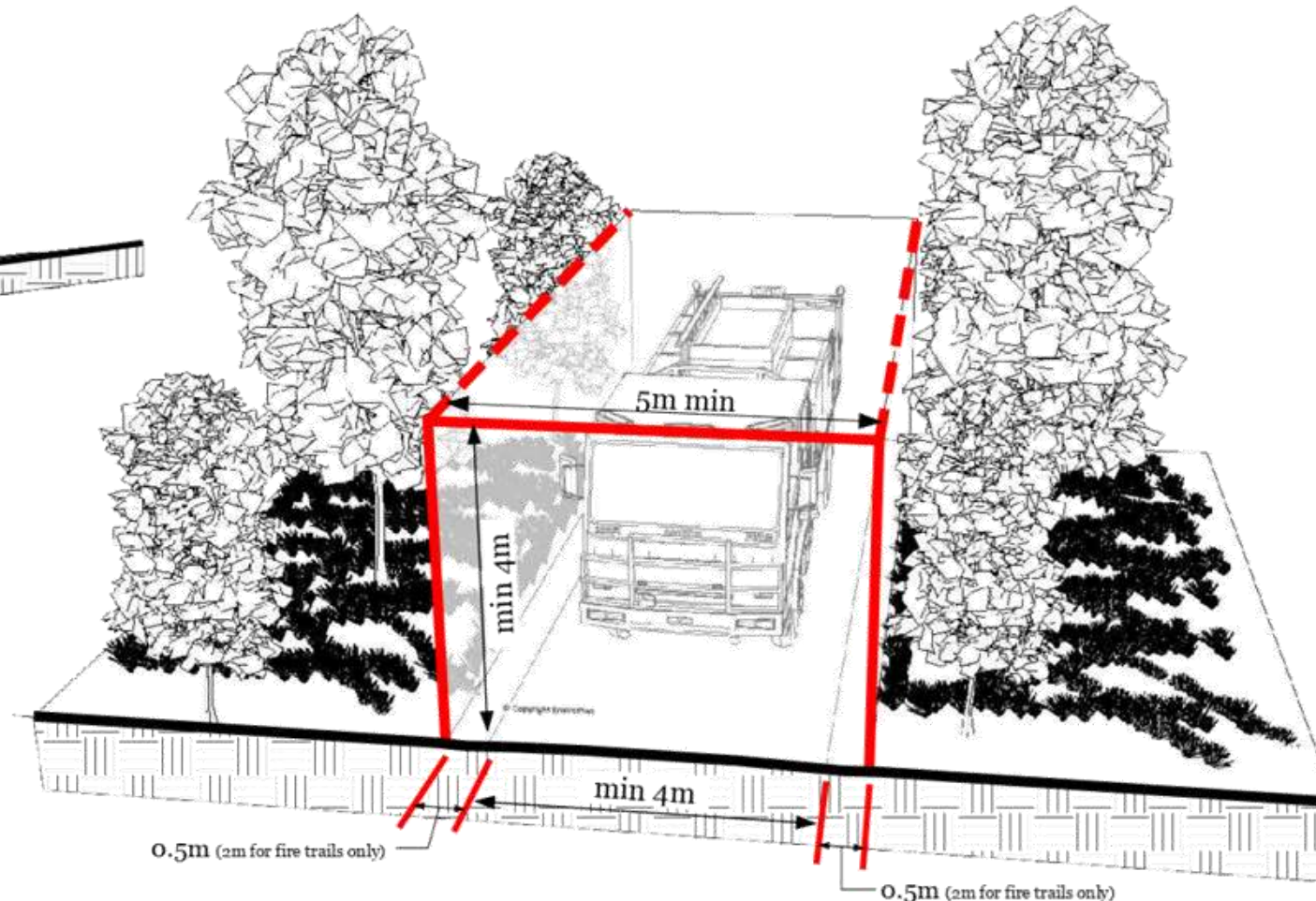
the cross-fall gradient shall not exceed a maximum grade 3 degrees (1:20 or 5%) (all seals)

Specifications - Fire Trails

- Fire trails shall be constructed to a four-wheel drive all-weather construction with a load capacity of 20 tonnes including bridges and culverts if applicable.
- The fire trail carriage width must be a minimum of 4m wide with a 4m vertical clearance.
- The fire trail must have a horizontal vegetation clearance of 2m from the edge of the carriageway
- All roads must have a cross fall of less than 3 degrees (1:20 or 5%) and a maximum dip of 7 degrees (1:8 or 12%) for sealed fire trails and / or 10 degrees (1:5.5 or 18%) for unsealed driveways.
- All curves must have a minimum inner radius of 10 meters.
- If gates are installed at the fire trail entry the minimum width of the gate must be 3.6m and if locked keys must be provided to the TFS.

All terminations of carriageways must be provided with a turning area for fire appliances by either a turning circle with a minimum radius of 10m, a property access driveway encircling the habitable building or a hammerhead 'T' or 'Y' turning head 4m wide and 8m long.

Any fire trail exceeding 200m in length must provide passing bay/s at a minimum additional 2m carriageway width (6m total) and 20m in length not exceeding every 200m in separation from the site access to the building area.



Vegetation Clearance & Property Access Driveway Construction

The property driveway must be constructed to an all-weather construction with a load capacity of at least 20 tonnes including any bridges or culverts (if applicable)

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PROJECT Address
183 Back Cam Road, Somerset

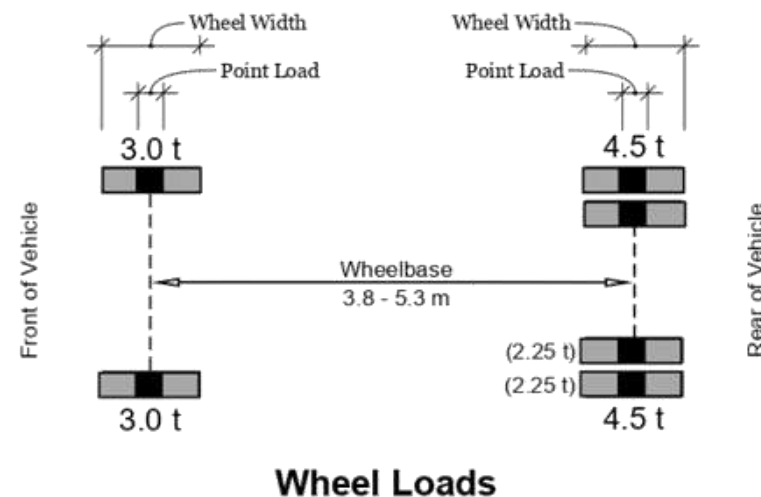
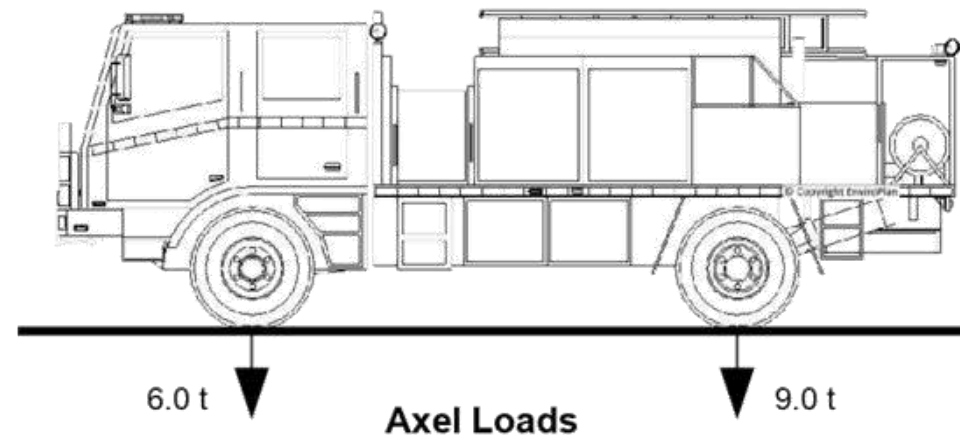
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Bushfire Prone Areas - Culverts / Bridges and Load Capacities

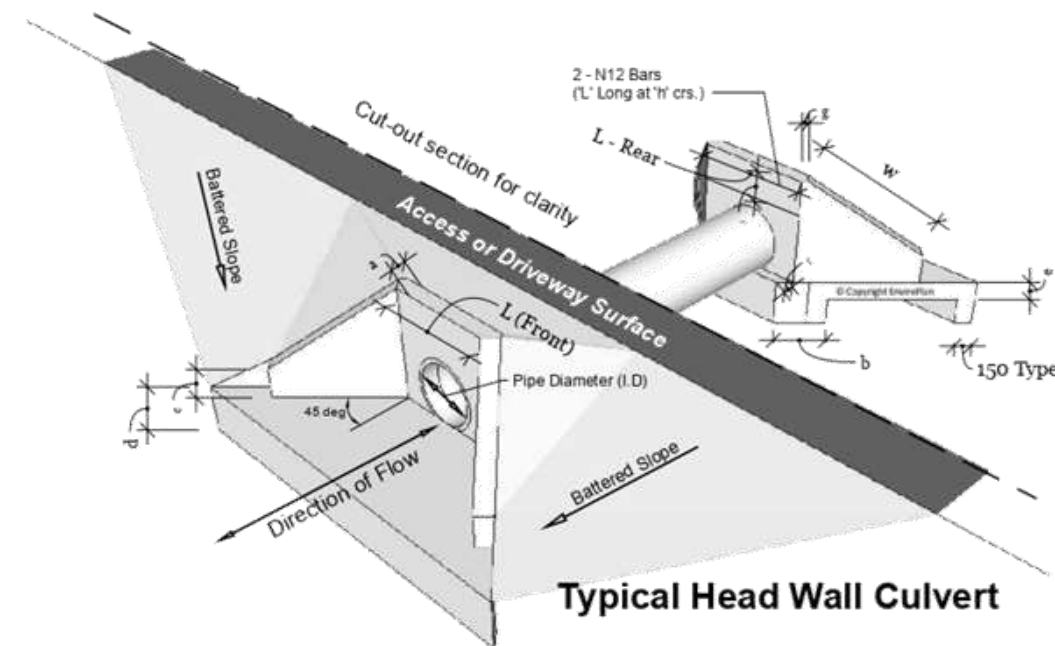
The maximum weight of a general fire appliance is 15 tonnes. The static load should be used when determining forces acting through load bearing structures and surfaces.
The minimum design requirement for loading capacities for any road, bridge or culvert is 20 tonnes which allows for an adequate safety margin.



Wheel Loads

Point Load Construction Notes

- 1 Hardstand areas must be founded on solid ground and are not to be located over culverts or bridges, suspended floors or wharf areas (or the like).
- 2 Hardstand areas must not be located over municipal reticulation mains (water, sewer, stormwater or gas mains)
- 3 The driveway surface and hardstand area/s are to have a binding and hardness to withstand point loads exerted through each tyre (seen in black above).
- 4 Tyres are typically inflated around 850 kPa pressure. If the driveway or hardstand areas has insufficient surface integrity, the point load will result in localised damage to the trafficable surface
- 5 Access or Driveway surface must maintain cover of 1/2 the diameter of the pipe measured from the top of the culvert pipe to finished surface level.



Pipe Diameter (I.D.)	300	375	450	525	600	675	750	825	900
Headwall Dimensions (mm)									
a	150	150	150	150	175	175	200	200	225
b	300	300	300	300	375	375	400	400	425
c	300	300	300	300	350	350	350	350	350
d	375	375	375	375	530	530	530	530	530
e	150	150	150	150	175	175	200	200	225
f	75	75	75	75	100	100	100	100	100
g	40	40	40	40	50	50	50	50	50
h	70	70	70	70	75	75	100	100	125
i	200	200	200	200	300	300	300	300	300
w	700	700	850	1000	1100	1300	1450	1600	1750
vol. of Concrete (m3)	0.329	0.375	0.485	0.621	0.981	1.220	1.483	1.702	2.027
Reinforcing (all bars N12)									
L - (Rear)	845	921	1017	1099	1204	1287	1388	1470	1575
L - (Front)	803	880	975	1057	1140	1223	1305	1387	1471
Reo. Length (mm)	1648	1801	1992	2156	2344	2510	2693	2857	3046
Reo. Mass (kg) *	1420	1509	1687	1776	1954	2131	2220	2398	2486

* Does not include SL82 mesh to slab

For further details refer to TSD-SW17-v1 of IPWEA Standard Drawings

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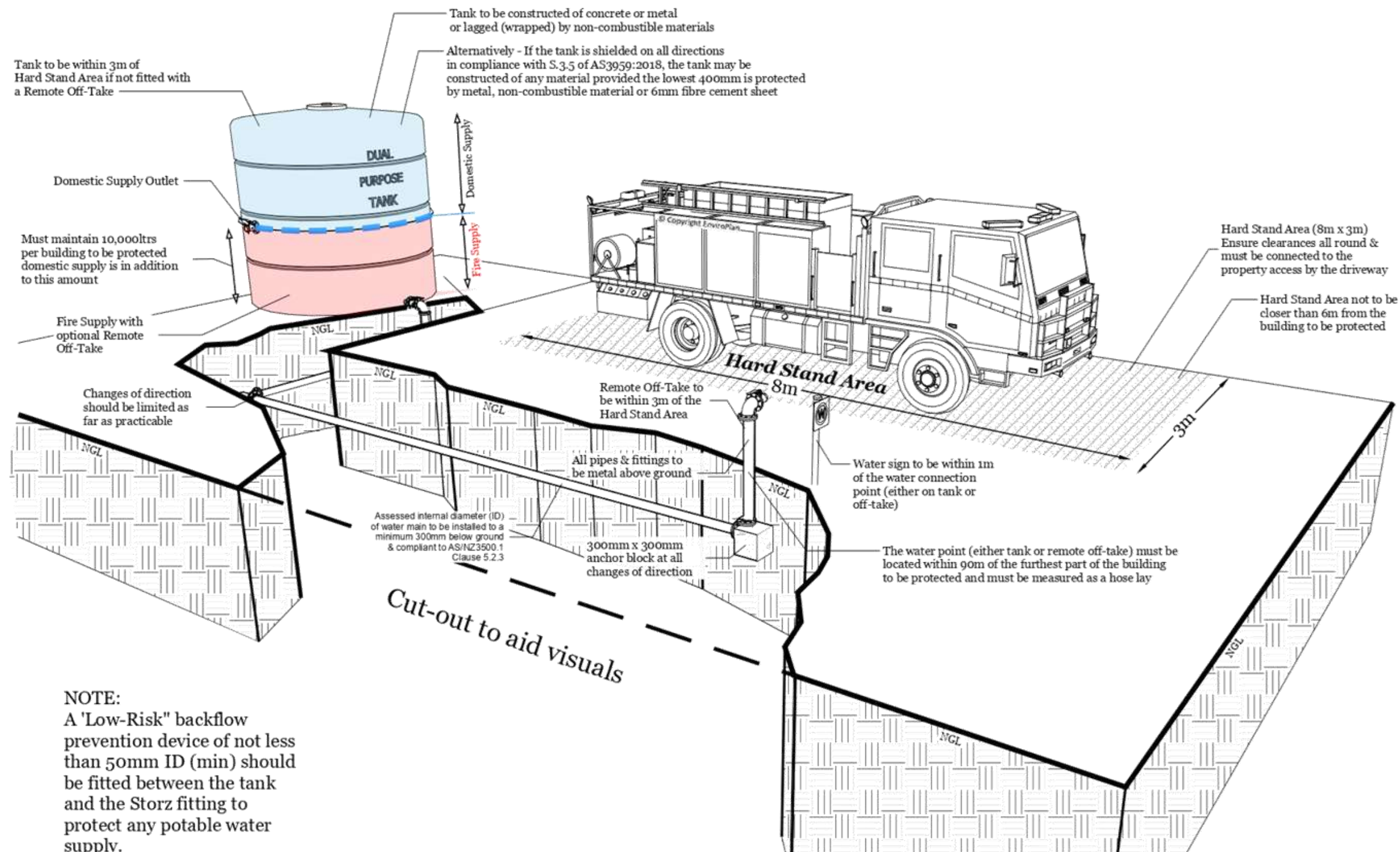
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SPECIFICATIONS PAGE



Annexure
B0.11

Static Water Supply & Hard Stand Area Details



NOTE:
A 'Low-Risk' backflow prevention device of not less than 50mm ID (min) should be fitted between the tank and the Storz fitting to protect any potable water supply.

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Annexure
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Pipe Sizes & Classes Required for Remote Off-Take's

The following pipe sizes from the water supply outlet to the remote off-take have been calculated based on a fire truck drawing water from the water supply outlet at a rate of 20L/s and represents the minimum sizes and classes of pipe to be used to avoid negative pressure from the pump damaging the pipe. The calculations also assume that a 64mm diameter coupling is being used at the outlet.

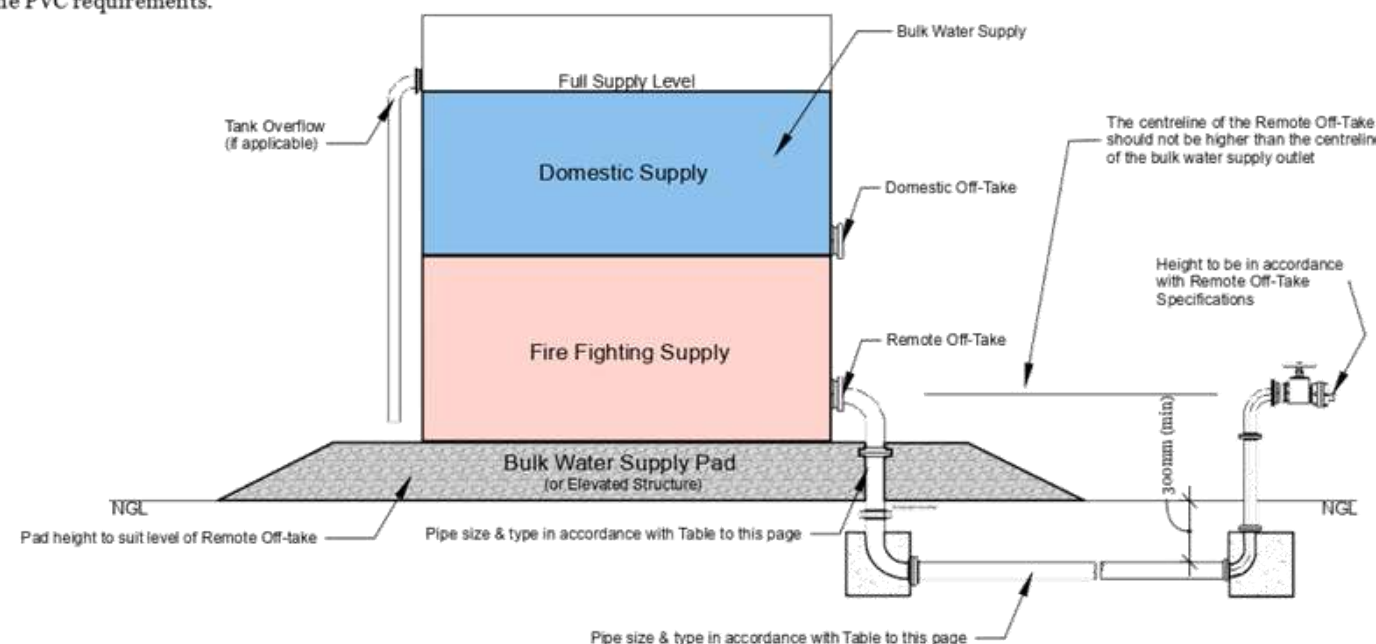
NOTE: Remote Off-Take's cannot exceed 100m in separation from the water outlet.

Length of pipe between outlet & off-take	10 to 19m		20 to 29m		30 to 39m		40 to 49m		50 to 59m		60m to 79m		80m to 99m		100m (capped)	
Pipe Type	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE	PVC	HDPE
Vertical Height between water supply outlet & remote off-take (0m)	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	150mm	180mm*	150mm	180mm*
Remote Off-Take 1m below water supply outlet	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	150mm	180mm*
Remote Off-Take 2m below water supply outlet	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm
Remote Off-Take 3m below water supply outlet	80mm	90mm	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm
Remote Off-Take 4m below water supply outlet	80mm	90mm	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm
Remote Off-Take 5m below water supply outlet	80mm	90mm	80mm	90mm	80mm	90mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm	100mm	125mm

* Denotes Special Order Item (expect increased costs)

NOTES:

- Lineal meters are to be rounded **UP** to the next whole number (i.e. 19.6m is to be considered 20m).
- PVC pipe is to be **Class 12**
- Cu (Copper) can be used and is the same as the PVC requirements.
- HDPE pipe is to be **PN 12.5**



Remote Off-Take Height in Relation to Bulk Water Supply Outlet

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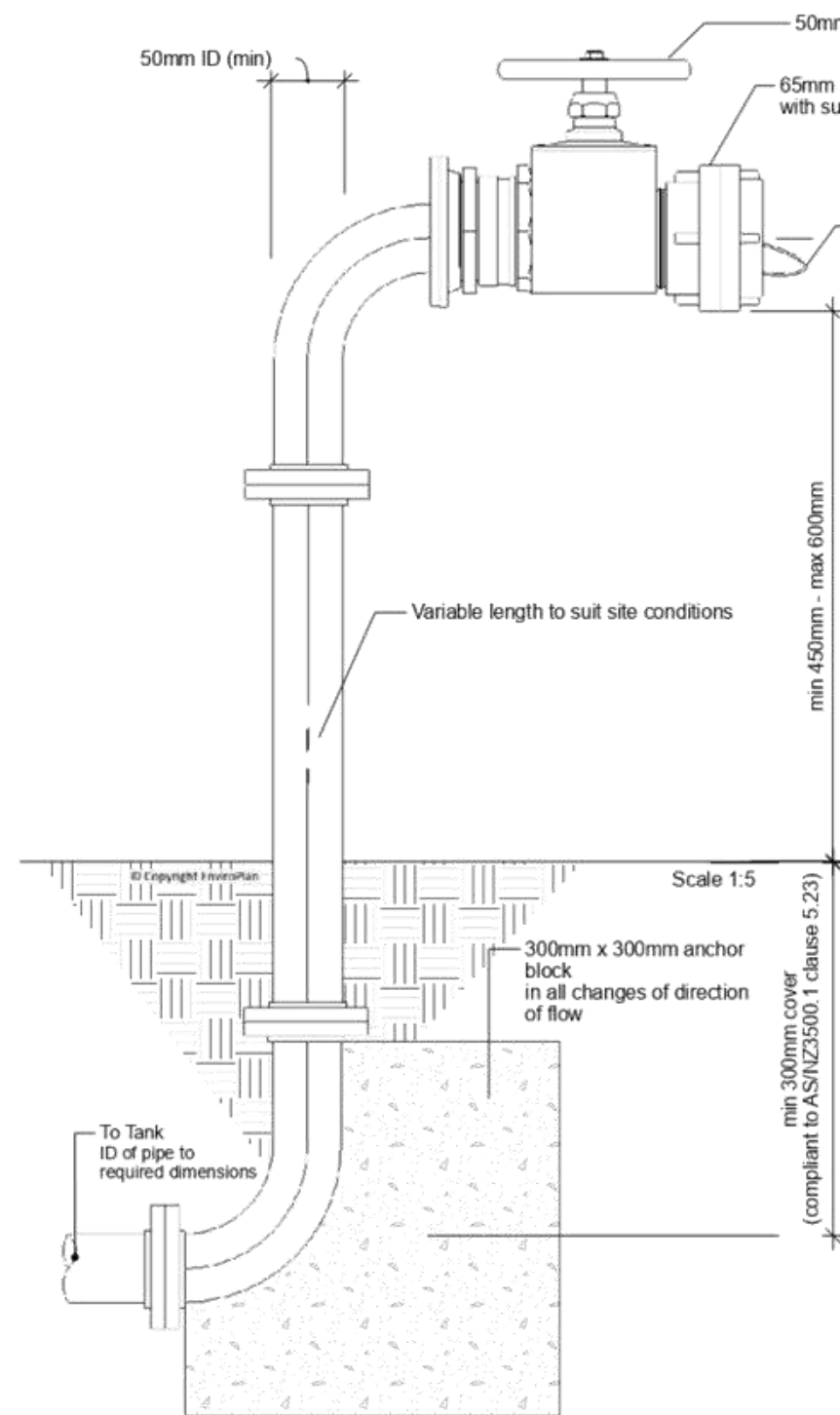
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SPECIFICATIONS PAGE

Remote Off-Take & Sign Installation Details



Standard Remote Off-Take (If Applicable)

Specifications - Tank Fittings, Pipework & Accessories

All fittings and pipework associated with a water connection point must:

- Have a minimum nominal internal diameter of 50mm.
 - Be fitted with a valve with a minimum nominal internal diameter of 50mm.
 - Be metal or lagged by non-combustible material if above ground.
 - Where buried, have a minimum depth of 300mm (compliant with AS/NZS3500.1 2003 Clause 5.23).
 - Provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to firefighting equipment.
 - Ensure the coupling is accessible and available for connection at all times.
 - Ensure the coupling is fitted with a blank cap and securing chain (min 220mm length).
 - Ensure underground tanks have an opening at the top of not less than 250mm diameter.
- Where remote off-take is installed; ensure the off-take is in a position that is visible and accessible to allow connection by firefighting equipment and is at a working height of 450mm - 600mm above ground level and protected from damage (bollards or the like) including damage by vehicles.

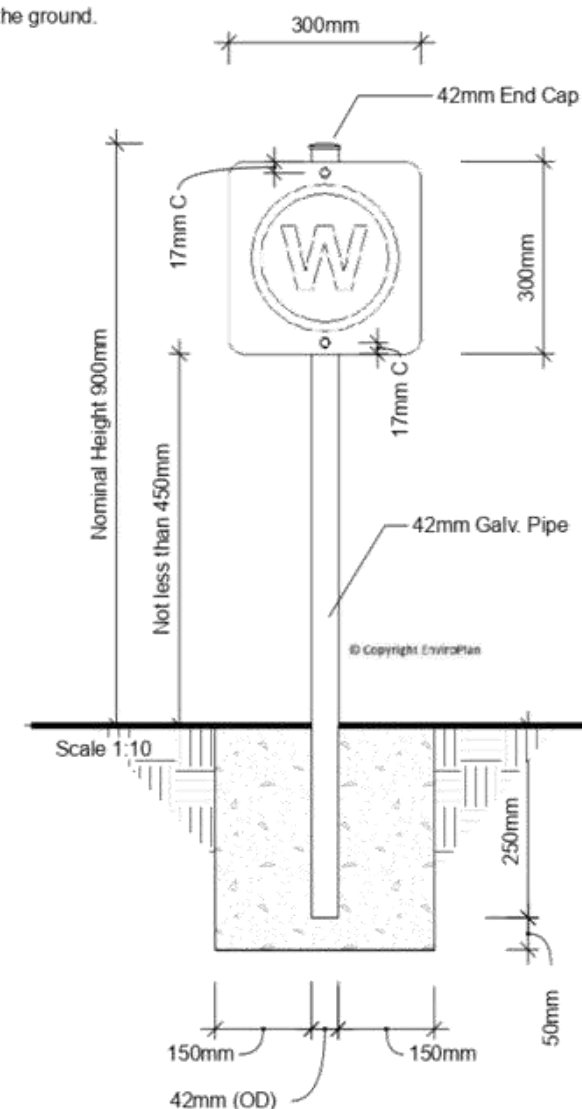
NOTE:

A 'Low-Risk' backflow prevention device of not less than the required ID of the delivery pipe should be fitted between the tank and the Storz fitting to protect any potable water supply on a dual purpose tank.

Specifications - Signage for Static Connections

The water connection point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must comply with:

- Water tank signage requirements within AS2304 2011 Water Storage Tanks for Fire Protection Systems; or
- Be marked with the letter "W" contained within a circle with the letter in upper case and not less than 100mm in height; and
- Be fade resistant material with white reflective letting and circle on a red background; and
- Be located within 1 meter of the water connection point in a situation which will not impede access or operation; and
- Be not less than 400mm above the ground.



Signage Installation - Post Assembly

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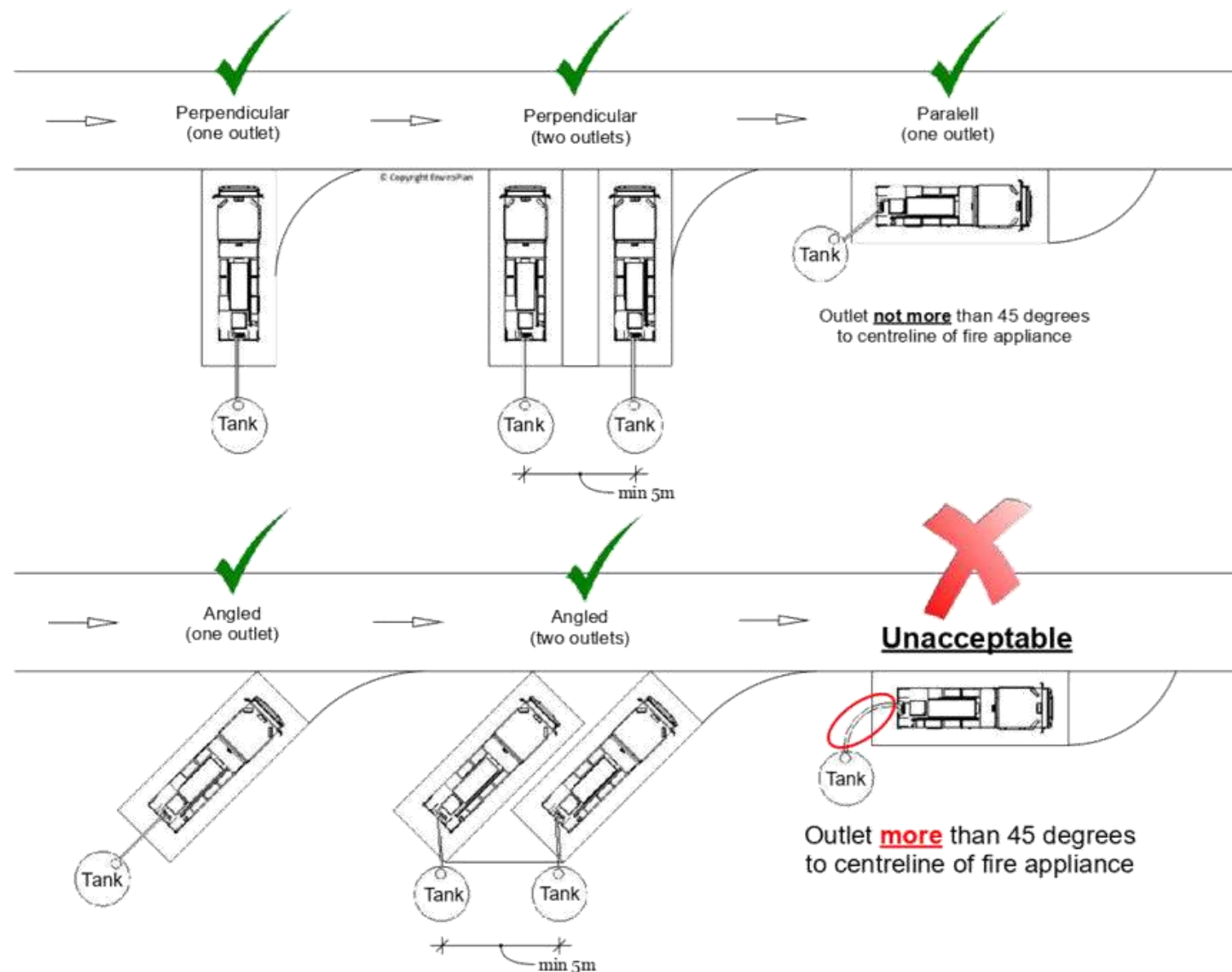
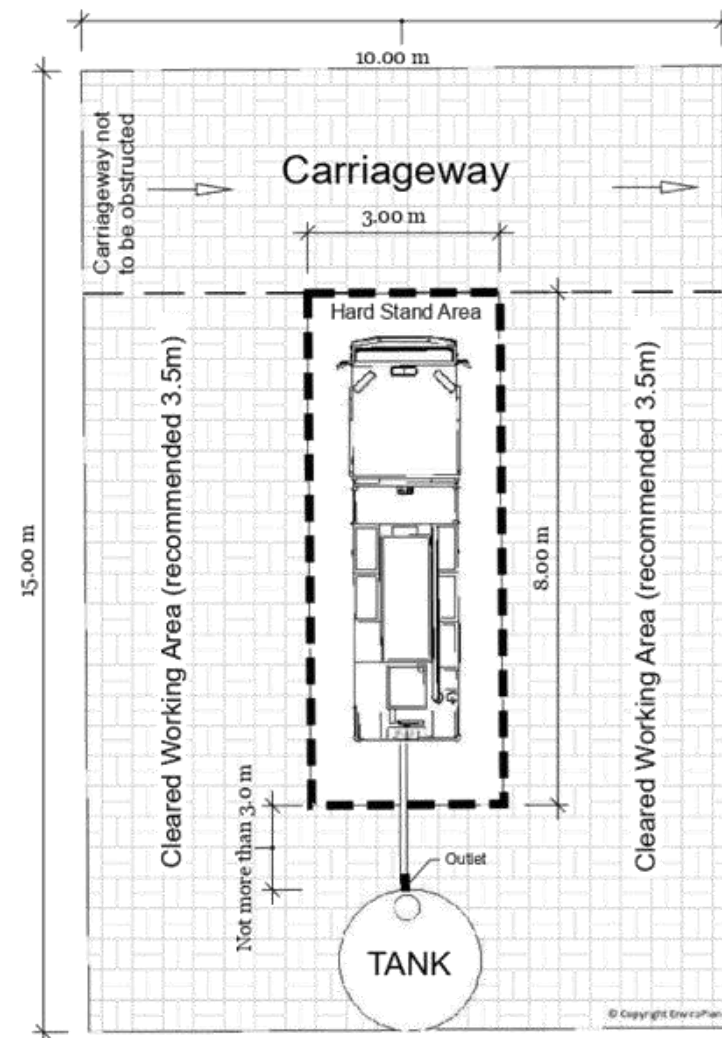
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Hard Stand Details

Hardstand area serving a suction - connection outlet

A minimum clearance of 3.5m should be provided. A turnaround area may be used as a hardstand area only when another fire appliance can safely turn around.



Specifications - Hard Stand Areas for Static Water Supplies

A hard stand area for fire appliances must be provided:

- No more than 3m from the water from the water connection point measured as a hose-lay (including the minimum water level in dams, swimming pools and the like); and
- No closer than 6m from the building area to be protected; and
- With a minimum width of 3m constructed to the same standard as the driveway; and
- Connected to the property access by a driveway equivalent to the standard of the property access.

Orientation of hardstand area for suction - connection outlets

Suction - connection outlets are not to be located within 5m of each other



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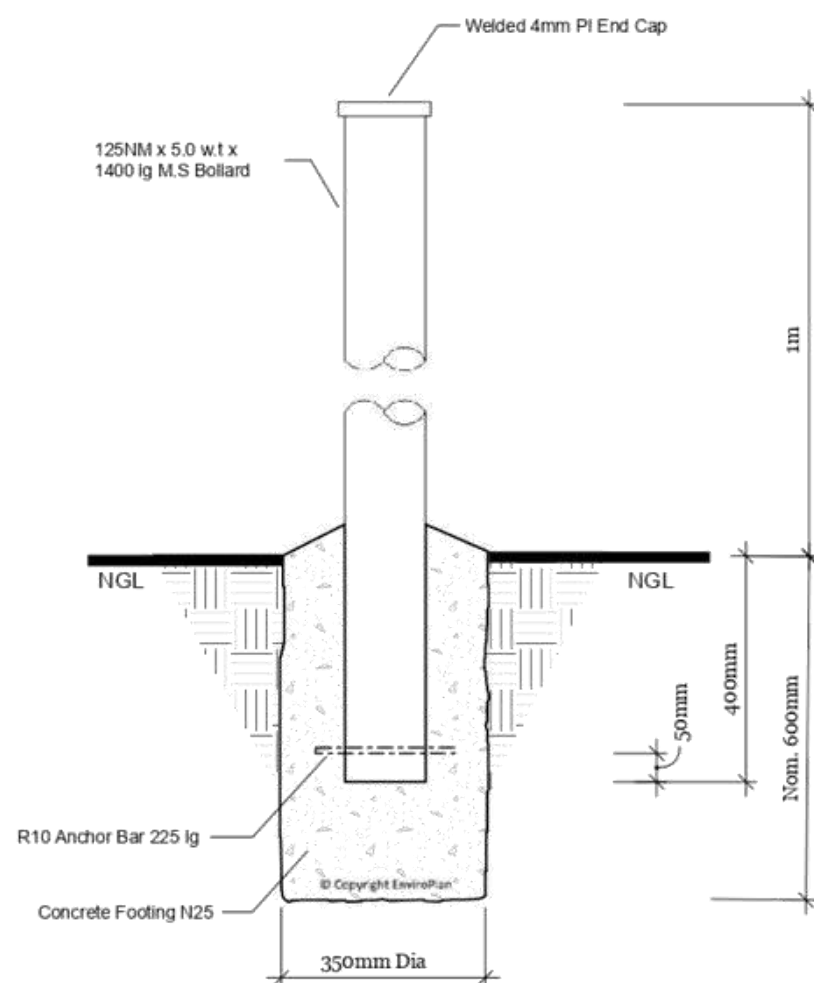
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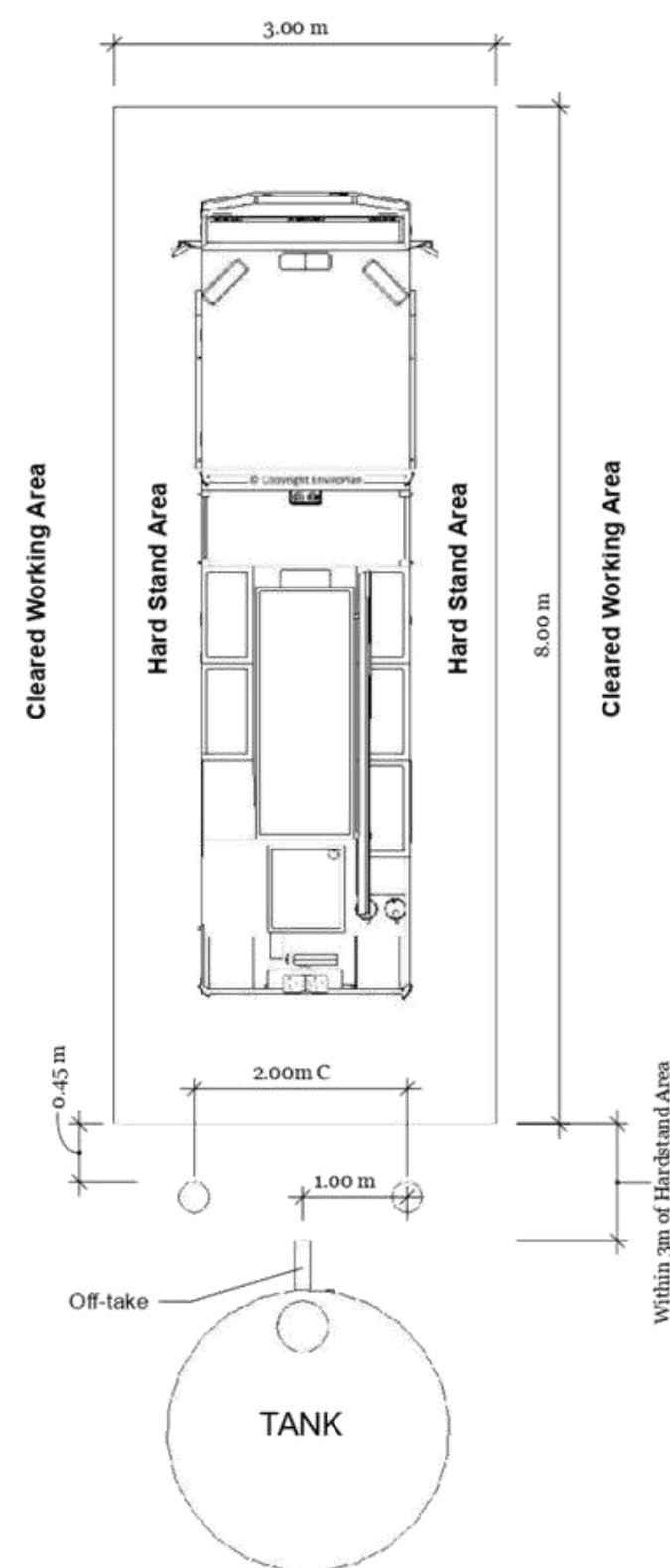
Bollard Construction & Off-take Protection Detail



Remote Off-Take Protection Bollard

Or similar solid protection method

Protection Bollard Height Table			
Soil Type	Hole Depth (mm)	25MPa Concrete Bags (per hole)	Post Height (mm) above NGL
Clay/Firm Earth	600	2	1000
Sand/ Loose Fill	1000	3	1000



Positioning of Protection Bollard

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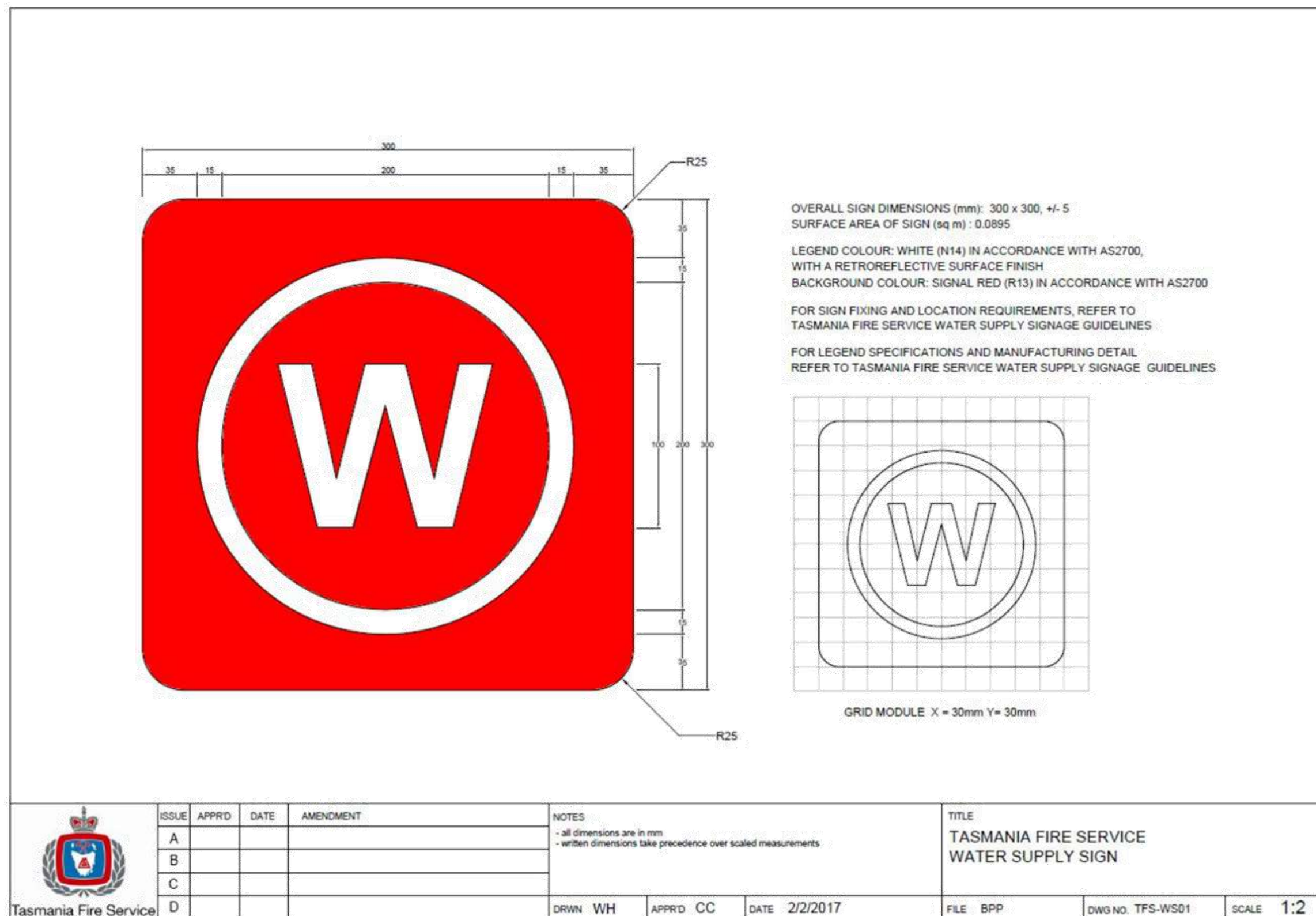
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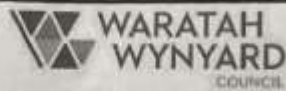
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AGREEMENT FOR EXTENSION OF TIME

In accordance with Section 57 (6) of the *Land Use Planning and Approvals Act 1993* I

T R Sutherland & A C Sutherland

of

asher.clay.sutherland@gmail.com

hereby grant the Planning Authority an extension of time until the 28 day of November 2022

Ref. No. 7902963 & SD 2144

Signed

A handwritten signature in cursive script, appearing to be 'Rose', written over a horizontal line.

(Applicant)

A handwritten signature in cursive script, appearing to be 'A Sutherland', written over a horizontal line.

(Applicant)

20/10/22 (Date)

Signed

A handwritten signature in cursive script, appearing to be 'Ashley Thornton', written over a horizontal line.

ASHLEY THORNTON, *per Council delegation*

(Manager Development & Regulatory Services)

21.10.22

(Date)



2022 LOCAL GOVERNMENT ELECTIONS

Certificate of Election

Waratah-Wynyard Council

In accordance with the Local Government Act 1993 I have declared the following candidates elected to the positions shown below.

8 Councillors

Elected for a period of 4 years

Kevin HYLAND
Mary DUNIAM
Dillon ROBERTS
Celisa EDWARDS
Gary BRAMICH
Michael JOHNSTONE
Andrea COURTNEY
Leanne RAW

Mayor

Elected for a period of 4 years

Mary DUNIAM

Deputy Mayor

Elected for a period of 4 years

Celisa EDWARDS

A handwritten signature in black ink, appearing to read "Michael", written over a horizontal line.

Michael Leyden RETURNING OFFICER

1 November 2022



2022/23 CAPITAL PROGRAM MONTHLY PROGRESS REPORT

Executive Summary

Reporting Month: November 22

Reporting Officer: Corey Gould, Manager Engineering Services

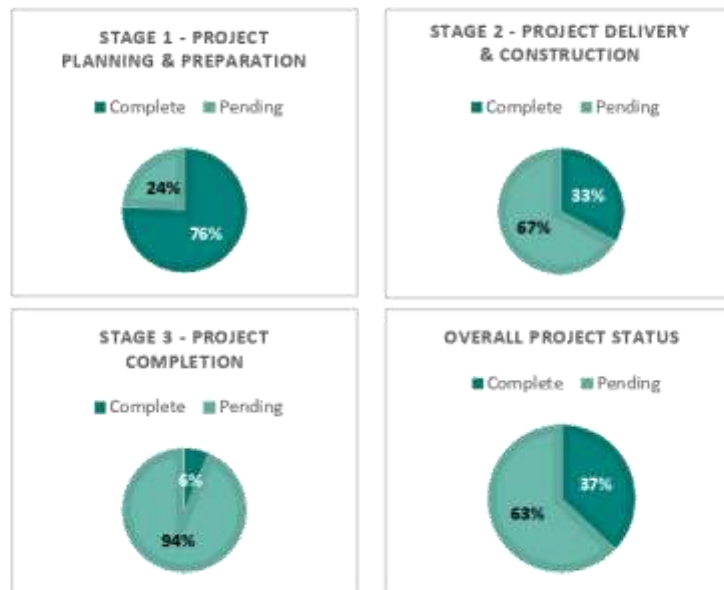
Current Capital Delivery

Section	Total Project Completion (%)
Parks & Open Spaces	37.0
Transport	42.0
Stormwater	43.5
Sporting Facilities	19.0
Buildings	18.2
Plant & Equipment	37.1
Budget Amendments	0.0

Status %	Stage
Between 0% and 25%	Stage 1 - Project Preparation including, design, permits, tender and consultation, construction approval
Between 25% and 75%	Stage 2 - Project construction and delivery
Between 75% and 100%	Stage 3 - Project Completion including initiation defects liability period, construction approval, as constructed drawings



PARKS & OPEN SPACE

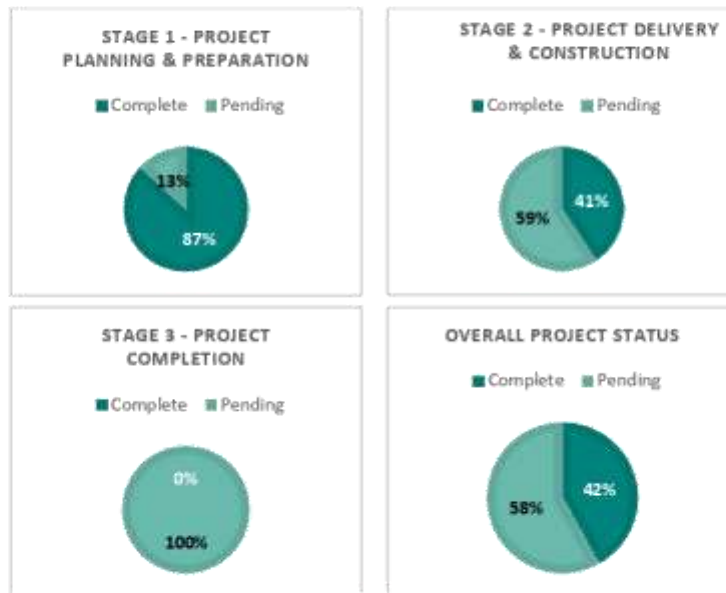


Key project updates by exception:

- **Somerset:**
 - Cam River Reserve Masterplan Actions: The replacement of the existing playground to be completed this year. Will require CLS approval but will need concept and measurements for CLS to progress (mid-January) and go community for consultation.
 - Erosion Mitigation for ANZAC Park received CLS approval to lodge DA.
- **Wynyard:**
 - The Dog Park and Freedom Camping area in Wynyard remain in consultation with the Show Society and CLS. Awaiting information from Crown to progress.
 - Camp Creek Final Rehabilitation requires further drainage investigation.
- **Other:**
 - Yolla RV Dump Site awaiting amenities location before progress can be made.
 - Boat Ramp Solar Lighting - Complete.
 - Sisters Beach Erosion Works is waiting further details from consultant and PWS before it can proceed.
 - James Philosopher Smith Statue – pending funding.



TRANSPORT

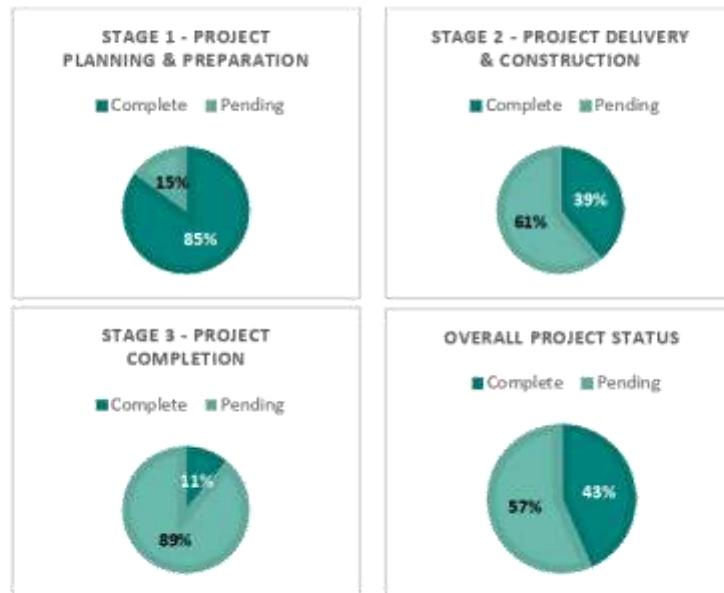


Key project updates by exception:

- Nothing significant to report



STORMWATER

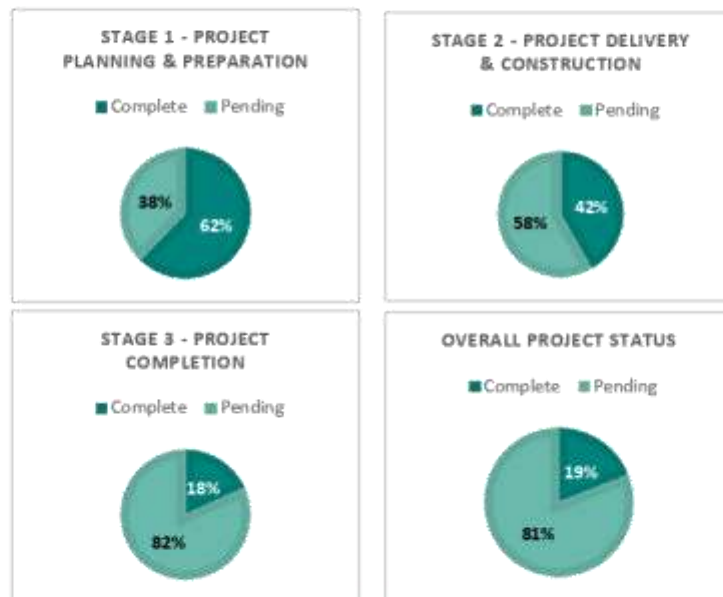


Key project updates by exception:

- Port Road Boat Harbour Drainage dam permit is being put together.
- Big Creek DA is being prepared for land acquisition, tender to follow in the near future. A grant application has been submitted for NDRR funding.



SPORTING FACILITIES

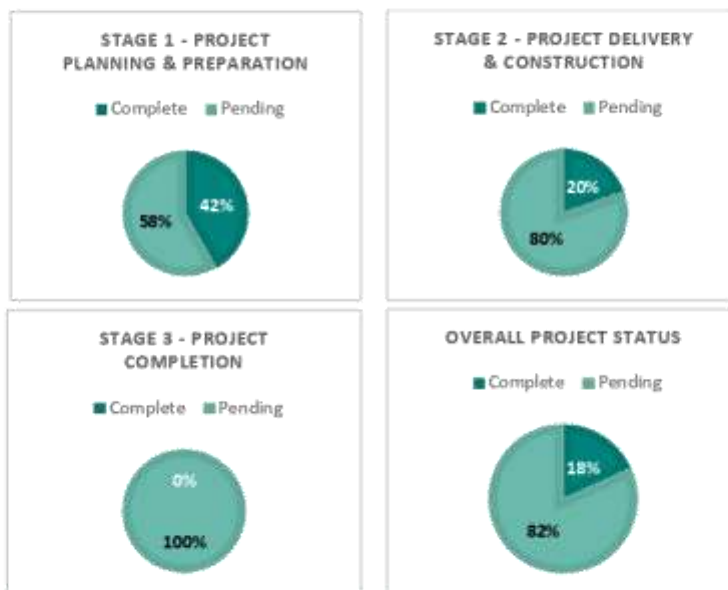


Key project updates by exception:

- Demolition of Wynyard Showgrounds Grandstand some progress, waiting on one club to pursue a new location before demo can commence.
- Somerset Sporting Precinct has had a detailed consultation, expressions of interest to commence early 2023. Forecasting no expenditure, n hold for the time being.
- WySP Design – Indoor Training Facilities no further progress, school discussions are occurring now.



BUILDINGS

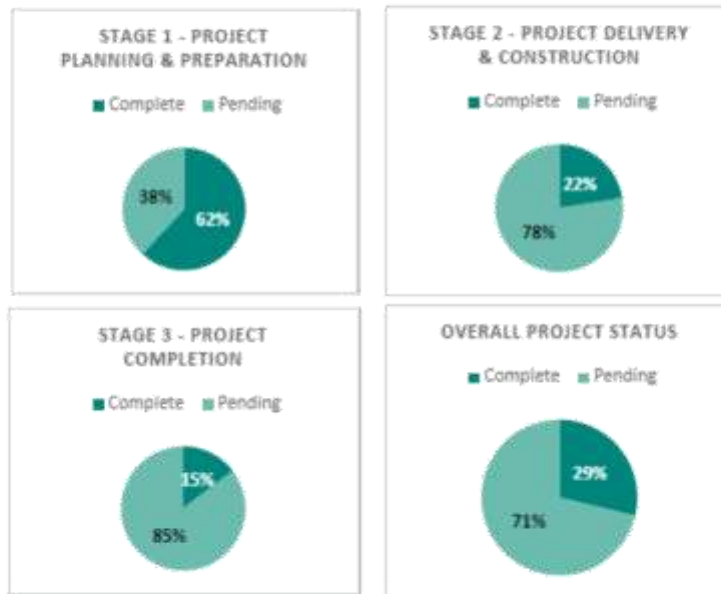


Key project milestones/updates:

- Yolla Public Toilet currently no site identified for construction.
- Table Cape Amenities is awaiting grant funding.
- Community Centre Outside School Hours Car (OSHC) Kitchen Upgrade gathering quotes has been difficult due to contractor availability, some financial concerns. Currently reviewing timeline and options for this year.
- Waratah Community Hub Upgrade quotes are being obtained though there's been difficulty finding contractors who can do the work. Some financial concerns, reviewing options.



PLANT & EQUIPMENT



Key project milestones/updates:

- Nothing significant to report.



Enquiries: Sally Blanc
Phone: (03) 6443 8311
21 October 2022

Primary Industries and Water
Department of Natural Resources and Environment Tasmania
HOBART TAS 7001

EMAIL [REDACTED]

C.C.: [REDACTED]

Dear [REDACTED]

RE: COUNCIL REQUEST FOR PUBLIC FORUM REGARDING FINFISH FARMING

At the October Ordinary Meeting of Waratah-Wynyard Council it was determined that Council:

".. request that the State Government facilitate a forum in Burnie regarding fin fish farming before the end of the year."

Council are facing increased lobbying from the community with concerns about proposed fin fish farming activities in the Bass Strait and along the North West Coast.

Council's response to community members to date has been:

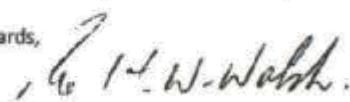
- At this time Council has not formed any opinion or position on the matter nor is it fully informed and educated on the subject.
- It should be noted that Council has no formal authority in relation to marine based fish farms and any involvement would be limited to advocacy.
- Council will not be facilitating or coordinating any public discussions or forums on the subject at this time, nor seeking a formal position on the matter.
- Interested members of the community are suggested to direct their advocacy and questions to the State and Federal government.
- Individual councillors will participate as they wish as members of the community, and it is at their discretion whether they disclose any personal views on the subject.

It is understood that there is considerable information available on-line, and much engagement work has been done to date, however community concern remains. In line with these concerns, Council request face to face information is provided through a well-structured, well facilitated forum coordinated by the relevant State Government department on the North West Coast as soon as possible.

We understand this is an emotive issue however it is imperative all steps are taken to ensure the community can be educated on all sides of the argument and make fully informed observations.

We look forward to your favourable response.

Kind regards,


Robby Walsh
MAYOR

Waratah Wynyard Council
21 Saunders Street (PO Box 168) Wynyard Tasmania 7325
P: (03) 6443 8333 | F: (03) 6443 8383 | E: council@warwyn.tas.gov.au

Councillor Allowances

Information Sheet
25 October 2022

This information sheet explains the process for adjusting allowances for councillors, mayors and deputy mayors annually by an inflationary factor. This information has been updated for the allowances payable from 1 November 2022.

Legislative basis

Section 340A of the *Local Government Act 1993* (the Act) entitles councillors to allowances as prescribed in regulations. Mayors and deputy mayors are entitled to allowances in addition to those payable to them as councillors.

Regulation 42(2) of the *Local Government (General) Regulations 2015* (the Regulations) specifies the allowances payable to councillors, mayors, and deputy mayors. Regulation 42(2A) entitles deputy mayors to receive the allowance payable to the mayor when they act in the role for four consecutive weeks or more.

The allowances payable from 1 November 2014 are set out in Schedule 4 of the Regulations.

Indexation

Regulation 42(2) establishes an indexation process so that allowances are adjusted from 1 November each year by multiplying the allowances for the previous year by the inflationary factor for the current year.

The inflationary factor is calculated using the ABS's Wage Price Index (WPI) for Tasmania. The Department of Treasury and Finance references this data in its WPI information sheet each quarter which can be found on Treasury's website:

www.treasury.tas.gov.au/economy/economic-data/economic-data-releases-for-tasmania

The formula for arriving at the inflationary factor is:

$$\frac{\text{Tasmanian June quarter WPI (current year)}}{\text{Tasmanian June quarter WPI (previous year)}}$$

The table on page 3 shows the allowances payable from 1 November 2022 (noting these are rounded to the nearest whole dollar, consistent with the Regulations).

Payment

Regulation 42(3) requires the annual allowance to be paid in monthly or fortnightly instalments. Section 340A(2A) of the Act requires that allowances be paid in arrears.

Foregoing Allowance

Section 340A(3) of the Act enables a councillor, mayor or deputy mayor to decide not to receive part or all of an allowance. Where this prerogative is exercised, the General Manager is to be notified in writing. As the allowances are annual allowances payable monthly or fortnightly in arrears, any such notification is not revokable retrospectively.

Councillor Expenses

Regulation 43 enables councillors to be reimbursed for reasonable expenses in relation to telephone and internet usage, travelling, stationery and office supplies, and 'the care of any person who is dependent on the councillor and who requires the care while the councillor is carrying out his or her duties or functions as a councillor', in accordance with the council's policy under Schedule 5 of the Act.

Reporting

Section 72(1)(cb) of the Act requires each council to include in its annual report a statement of the total allowances and expenses paid to the mayor, deputy mayor and councillors.

Indexed allowances payable to elected members from 1 November 2022

Council	Allowance for councillors	Additional allowance for deputy mayors	Additional allowance for mayors
Hobart City	\$40,068	\$25,877	\$100,172
Launceston City	\$40,068	\$25,877	\$100,172
Clarence City	\$32,438	\$22,540	\$81,092
Glenorchy City	\$32,438	\$22,540	\$81,092
Kingborough	\$32,438	\$22,540	\$81,092
Burnie City	\$24,566	\$19,200	\$61,415
Central Coast	\$24,566	\$19,200	\$61,415
Devonport City	\$24,566	\$19,200	\$61,415
West Tamar	\$24,566	\$19,200	\$61,415
Brighton	\$16,696	\$15,859	\$41,738
Huon Valley	\$16,696	\$15,859	\$41,738
Meander Valley	\$16,696	\$15,859	\$41,738
Northern Midlands	\$16,696	\$15,859	\$41,738
Sorell	\$16,696	\$15,859	\$41,738
Waratah-Wynyard	\$16,696	\$15,859	\$41,738
Break O'Day	\$13,954	\$13,357	\$34,887
Circular Head	\$13,954	\$13,357	\$34,887
Derwent Valley	\$13,954	\$13,357	\$34,887
Dorset	\$13,954	\$13,357	\$34,887
George Town	\$13,954	\$13,357	\$34,887
Latrobe	\$13,954	\$13,357	\$34,887
Glamorgan-Spring Bay	\$11,751	\$11,687	\$29,378
Kentish	\$11,751	\$11,687	\$29,378
Southern Midlands	\$11,751	\$11,687	\$29,378
West Coast	\$11,751	\$11,687	\$29,378
Central Highlands	\$10,283	\$10,853	\$25,705
Flinders	\$10,283	\$10,853	\$25,705
King Island	\$10,283	\$10,853	\$25,705
Tasman	\$10,283	\$10,853	\$25,705

Disclaimer: Advice on legislation or legal policy issues contained in this paper is intended for information and general guidance only. Such advice is not professional legal opinion.

Department of Natural Resources and Environment Tasmania

MARINE RESOURCES

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Waratah Wynyard Council

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Dear Mayor

I refer to your letter of 21 October 2022 regarding a request for a face-to-face forum on finfish farming on the North West Coast.

We recognise that some members of the community have been raising interest with Council on finfish farming. The Government is preparing a new Salmon Plan, and has recently consulted on a [Discussion Paper: Towards a 10-Year Salmon Plan](#) to inform its development.

The Draft Salmon Plan is expected to be released for consultation later this year. Consultation will be supported by regional public meetings across the state, including on the North West Coast.

We will be in contact to provide more information on this consultation opportunity in due course.

Yours sincerely

Dr Ian Dutton
General Manager – Marine Resources

4 November 2022