TASMAN COUNCIL
1713 Main Road, Nubeena TAS 7184
Phone: (03) 6250 9200
Email: tasman@tasman.tas.gov.au
Website: www.tasman.tas.gov.au
ABN: 63 590 070 717

NOTICE OF PROPOSED DEVELOPMENT

Notice is hereby given that an application has been made for planning approval under the Land Use Planning and Approvals Act 1993, for the following development(s):

NUMBER:	SA 11 / 2022
ADDRESS:	28 Blowhole Road, Eaglehawk Neck (CT 100122/5)
DESCRIPTION:	Subdivision – One Lot into Two

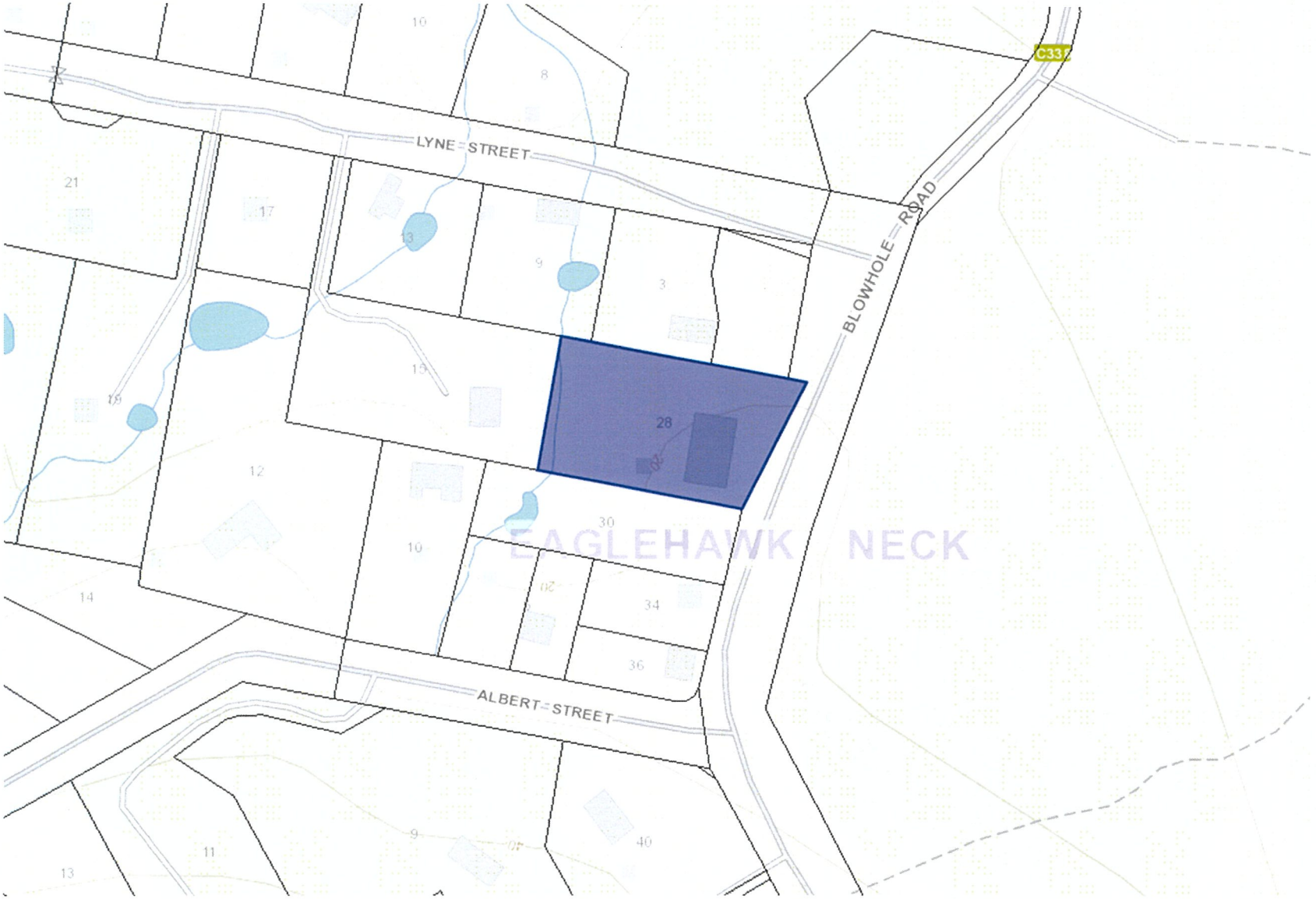
The relevant plans and documents can be viewed on Council's website https://tasman.tas.gov.au/advertised-applications/ or are available in hard copy upon request by calling Council on (03) 6250 9200 or email tasman@tasman.tas.gov.au until **05 September 2023.**

Any person may make a representation relating to the application. Representations are to be made in writing addressed to the General Manager, Tasman Council, 1713 Main Road, Nubeena TAS 7184 or by email to tasman@tasman.tas.gov.au and will be received no later than **05 September 2023**. Late representations will not be considered.

Blake Repine
General Manager
Date: 23 August 2023

SA 11 / 2022 – 28 Blowhole Road, Eaglehawk Neck (CT 100122/5), The relevant plans and documents can be inspected at the Council Offices at 1713 Main Road, Nubeena during normal office hours, or the plans may be viewed on Council's website at www.tasman.tas.gov.au until the date representations close, 05 September 2023.

The below imagine was sourced from The List: https://maps.thelist.tas.gov.au/listmap/app/list/map



TASMAN COUNCIL
1713 Main Road, Nubeena TAS 7184
Tel 03 6250 9200 **Fax** 03 6250 9220
Email tasman@tasman.tas.gov.au
Web www.tasman.tas.gov.au
ABN 63590070717

Application for Planning Permit

The personal information requested on this form is being collected by council for purpose set out in the title of the form. The personal information will be used solely by council for the primary purpose or directly related purposes. The applicant understands that personal information is provided for the above mentioned function and that he/she may apply to council for access to and/or amendment of the information. Requests for access or correction should be made to Tasman Council's Customer Service Officer.

APPLICANT DETAILS*

FULL NAME			
POSTAL ADDRESS		**POSTCODE**	
PHONE (BUSINESS HOURS)		**FAX**	
MOBILE		**EMAIL**	

OWNERS DETAILS (IF DIFFERENT)*

FULL NAME			
POSTAL ADDRESS		**POSTCODE**	
PHONE (BUSINESS HOURS)		**MOBILE**	

DESCRIPTION OF PROPOSED DEVELOPMENT*

- ☐ New Dwelling
- ☑ Subdivision
- ☐ Change of Use
- ☐ Commercial/ Industrial Building
- ☐ New Shed/ Outbuilding
- ☐ Extension/ Addition
- ☐ Demolition
- ☐ Other (please specify – right)

PRESENT USE OF LAND/ BUILDING(S)
Residence + vacant lot

LOCATION OF PROPOSED DEVELOPMENT*

ADDRESS	28 Blowhole Road, Eaglehawk Neck		
CERTIFICATE OF TITLE	100122	**LOT NUMBER**	5
FLOOR AREA			
Existing floor area (square metres):		Proposed floor area (square metres):	
CAR PARKING			
Number existing		Number proposed	

SITE CONTAMINATION	
Have any potentially contaminating uses been undertaken on this site? (Refer to list provided on page 5)	☐ Yes ☑ No
TASMANIAN HERITAGE REGISTER	
Is this property on the Tasmanian Heritage Register?	☐ Yes ☑ No
VALUE (mandatory field)	
Value of work (inc. GST)	

PRE-APPLICATION DISCUSSIONS*

HAVE YOU HAD PRE-APPLICATION DISCUSSIONS WITH A COUNCIL OFFICER? (If yes, please specify officers name, if known) _____	☐ Yes ☑ No

DECLARATION BY APPLICANT*

I/ we declare that the information given is a true and accurate representation of the proposed development; and
I/ we am/ are liable for the payment of Council application processing fees, even in the event of the development not proceeding; and
I/ we authorise Tasman Council to provide a copy of my documents relating to this application to any person for the purpose of assessment and public consultation and agree to arrange for the permission of the copyright owner of any part of this application to be obtained.

SIGNATURE OF APPLICANT	
NAME OF APPLICANT (PLEASE PRINT)	
DATE	15-5-22

DECLARATION IF APPLICANT IS NOT THE OWNER

I hereby declare that I am the applicant for the development at the address detailed in this application for a planning permit, and that I have notified the owner/s of the land for which I am making this application, in accordance with Section 52(1a) of the *Land Use Planning and Approvals Act 1993*.

SIGNATURE OF APPLICANT	
NAME OF APPLICANT (PLEASE PRINT)	
DATE	15-5-22
NAME/S OF OWNER/S NOTIFIED	
DATE	15-5-22

DECLARATION IF LAND IS COUNCIL OR CROWN LAND

If the land that is the subject of this application is owned or administered by either the Crown or Tasman Council, the consent of the Minister of the Crown or the General Manager of the Council, whichever is applicable, must be included here. This consent should be completed and signed by either the Minister, the General Manager of Tasman Council, or their delegate (as specified in Subsections 52(1d-1g) of the *Land Use Planning and Approvals Act 1993).*	
DECLARATION	I, _____ being responsible for the administration of land at _____ declare that I have given permission for the making of this application.
SIGNATURE OF MINISTER/ GENERAL MANAGER	
DATE	

NON-RESIDENTIAL DEVELOPMENTS

Note: This section must be completed for all applications for non-residential uses, home occupations and domestic/ residential businesses or other managed/ commercial residential uses (e.g. hostel or motel).

HOURS OF BUSINESS			
CURRENT		PROPOSED	
Monday to Friday		Monday to Friday	
Saturday		Saturday	
Sunday		Sunday	
NUMBER OF EMPLOYEES			
CURRENT		PROPOSED	
Total Employees		Total Employees	
Employees on Site		Employees on Site	

PLANT/ MACHINERY	
Is there any large plant or machinery that would need to be installed or used on site such as refrigeration units and generators? (If yes, please list below the type of machinery and ensure location, dimensions etc are clearly marked on your plans.)	☐ Yes ☐ No

OUTDOOR STORAGE/ SEATING/ NUMBER OF BEDS		
Is outdoor storage proposed? (If yes, please ensure that your plans show where the outdoor storage areas are and what type of goods are stored. This information will help us assess the impact of the proposal on the amenity.	☐ Yes ☐ No	
If you are proposing a night club, café or the like, what is the number of seats proposed including the capacity at any bar area?		Please ensure that the arrangements are shown on your plans. This information enables us to assess the car parking arrangements.
If you are proposing a hotel, motel, visitor accommodation, hostel or the like, what is the number of beds proposed?		Please ensure the beds are clearly indicated on your plans. This information enables us to assess the car parking arrangements.

GOODS DELIVERIES			
Will there be any goods deliveries to and from the site? (If yes, please estimate the number and type of vehicles and how often they will make trips.)	☐ Yes ☐ No		
Type and Size of Vehicle		Number of Vehicles on Site	
Trip Frequency per Month			

14th May 2022

Tasman Council,
1713 Main Road,
Nubeena. 7184.

Dear Sir,

Proposed Subdivision, 28 Blowhole Road, Eaglehawk Neck,

Please find attached a plan showing the proposed subdivision of certificate of title100122 - 5 at 28 Blowhole Road, Eaglehawk Neck, submitted to Council for planning approval.

There are two existing accesses to this property with the one for the existing house and the northern access is to serve the new lot and provides access to the rear of the existing house. Right of ways are to be created over this access as shown on the plan.

Also attached is a copy of the relevant title, a waste water report by Geo Environmental Solutions and a completed Application Form.

Yours faithfully

Authorised Surveyor

RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
100122	5
EDITION	DATE OF ISSUE
2	09-Feb-2005

EARCH DATE : 15-May-2022
EARCH TIME : 05.51 PM

ESCRIPTION OF LAND

Town of HAVELOCK
Lot 5 on Sealed Plan 100122
(formerly Lots 2 & 3 on Sealed Plan No 100122)
Derivation : Whole of Lot 7 (Section C) Gtd to A Harrison and part of Lot 9 (Section C) Gtd to A Harrison
Prior CTs 2405/86 and 2397/87

CHEDULE 1

C609233 TRANSFER to and
Registered 09-Feb-2005 at noon

CHEDULE 2

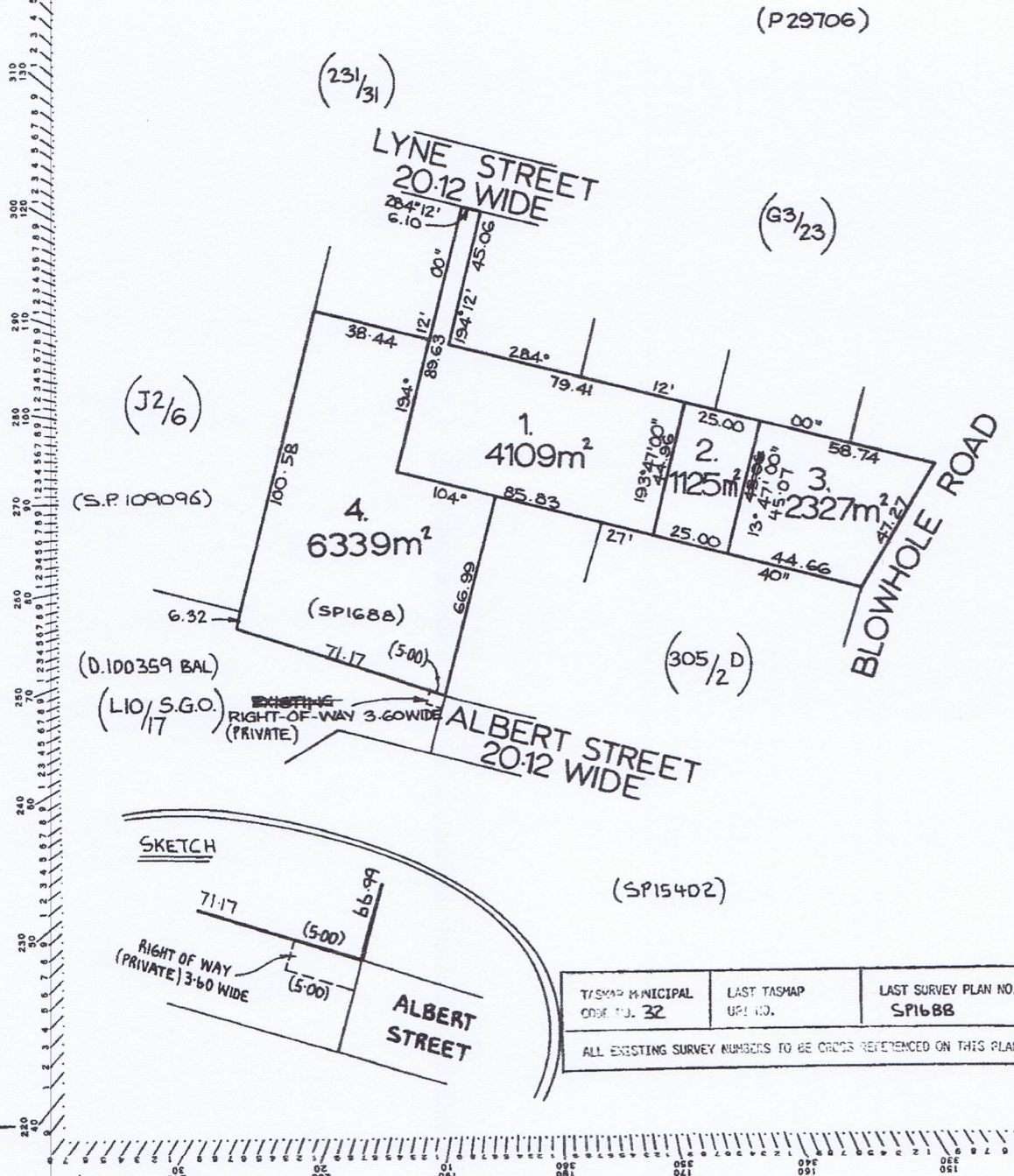
Reservations and conditions in the Crown Grant if any
SP100122 FENCING PROVISION in Schedule of Easements
C609234 MORTGAGE to Bendigo Bank Limited Registered 09-Feb-2005 at 12.01 PM

NREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

Owner: PHILLIP THOMPSON JOHN WILLIAM COLLETT & POPPY OLIVE COLLETT. D.N.H. SHEPPARD	**PLAN OF SURVEY** by Surveyor ANTHONY OWEN CARRICK of land situated in the	Registered Number: **SP100122**
Title Reference: C.T. 2405-86 & C.T. 2397-87. C.T 4393-94	TOWN OF HAVELOCK SECTION C.	Approved Effective from: 23 JUL 1992
Grantee: PART OF LOT 9, 10^A 3^R 6^P Gtd TO ALBERT HARRISON. WHOLE OF LOT 7 0-2-12 GTD. TO ALBERT E. HARRISON	SCALE 1:1500 MEASUREMENTS IN METRES	Recorder of Titles

LOT 3 IS COMPILED FROM C.T.2397-87 & THIS SURVEY.
LOT 4 IS COMPILED FROM C.T.2405-86 & THIS SURVEY.
LOT 2 IS TO BE ADDED TO LOT 3.
LOT 2 & LOT 3 TOGETHER FORM LOT 5



TASMAP MUNICIPAL CODE NO. 32	LAST TASMAP GRID NO.	LAST SURVEY PLAN NO. SP1688
ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN		

SCHEDULE OF EASEMENTS

PLAN NO. SP100122

NOTE:—The Town Clerk or Council Clerk must sign the certificate on the back page for the purpose of identification.

The Schedule must be signed by the owners and mortgagees of the land affected. Signatures should be attested.

EASEMENTS AND PROFITS

Each lot on the plan is together with:—

(1) such rights of drainage over the drainage easements shewn on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and

(2) any easements or profits à prendre described hereunder.

Each lot on the plan is subject to:—

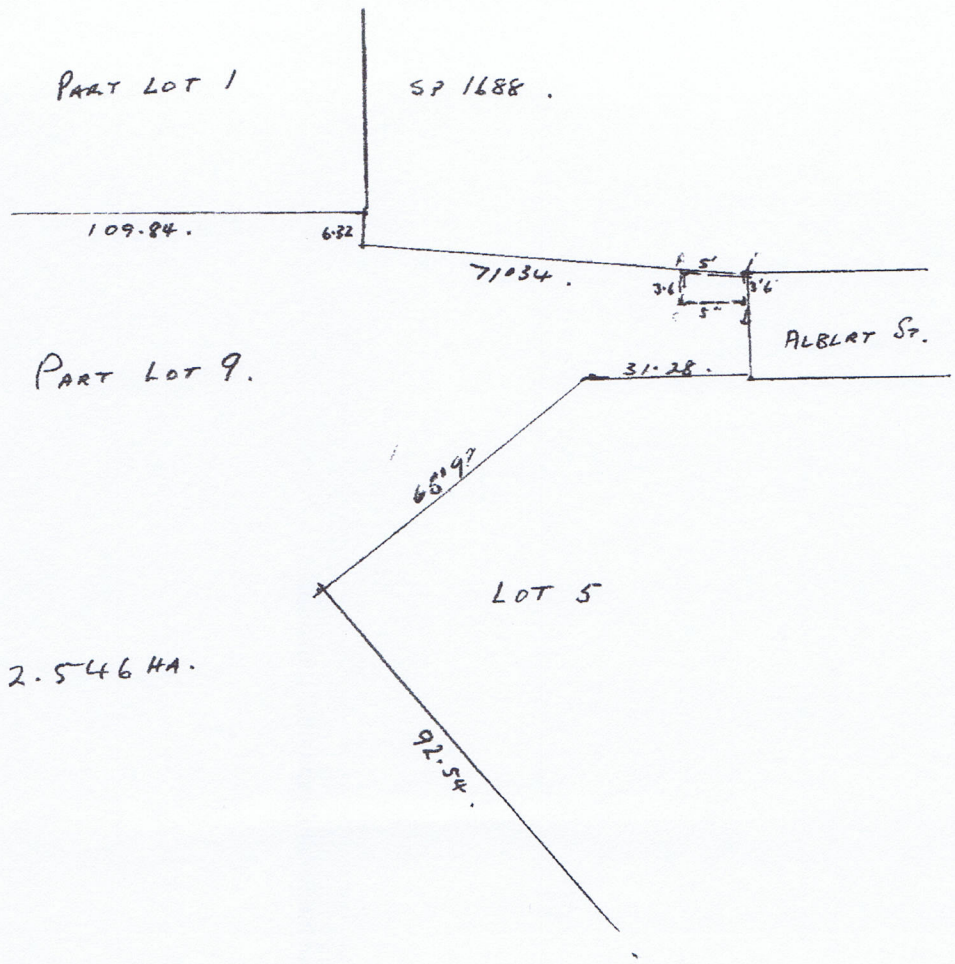
(1) such rights of drainage over the drainage easements shewn on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and

(2) any easements or profits à prendre described hereunder.

The direction of the flow of water through the drainage easements shewn on the plan is indicated by arrows.

FENCING PROVISION:

Phillip Edward Thompson
The vendor/shall not be required to fence in respect of Lots 1, 2 & 4 on the plan together with a right of carriageway
Lot 4 on the plan is ~~subject to a right of way (appurtenant to the land comprised in Certificate of Title Volume 4393 Folio 94)~~ over that area shown as "right-of-way" ~~being 3.60 metres (width) between points A and C; and between points~~(Private)3.60 wide ~~B and D by 5.00 metres (length) between points A and B; and between points C and B~~ shown on the plan.


PART LOT 1
SP 1688.
109.84.
6.32
71.34.
5'
3.6
3.6
5"
ALBERT ST.
31.28.
PART LOT 9.
65°9'
LOT 5
2.546 HA.
92.54.

SIGNED by
PHILLIP EDWARD THOMPSON
as owner of the land
comprised in Certificate of
Title Volume 2405 Folio 86
in the presence of

P.E. Thomp

WITNESS

J. STEWART
R.M.B 714
JETTY RD
EAGLEHAWK NECK.

OCCUPATION Housewife.

A.C.N. 005 357 522
The Australia and New Zealand Banking Group Limited as mortgagee under mortgage registered No. A994005 HEREBY CONSENTS to this dealing

AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED by its Attorney **Owen Lloyd** (who hereby certifies that he has received no notice of revocation of POWER OF ATTORNEY NO. 54/8529 under which this instrument is signed) in the presence of:
Bank Officer, Hobart.

AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED
By its Attorney

Regional Manager - Retail Banking

A.C.N. 004 845 685
The Australia and New Zealand Savings Bank Limited as mortgagee under mortgage registered No. B306220 HEREBY CONSENTS to this dealing

AUSTRALIA AND NEW ZEALAND SAVINGS BANK LIMITED by its Attorney **Owen Lloyd** (who hereby certifies that he has received no notice of revocation of POWER OF ATTORNEY NO. 54/8528 under which this instrument is signed) in the presence of:
Bank Officer, Hobart

AUSTRALIA AND NEW ZEALAND SAVINGS BANK LIMITED
By its Attorney

Regional Manager - Retail Banking

SIGNED by
ROGER STUART JAMES VALENTINE
the Public Trustee of Tasmania
for the time being and
sealed with his seal of office
in the presence of

R Valentine

Mahendra Naik
State Revenue Employee
Hobart

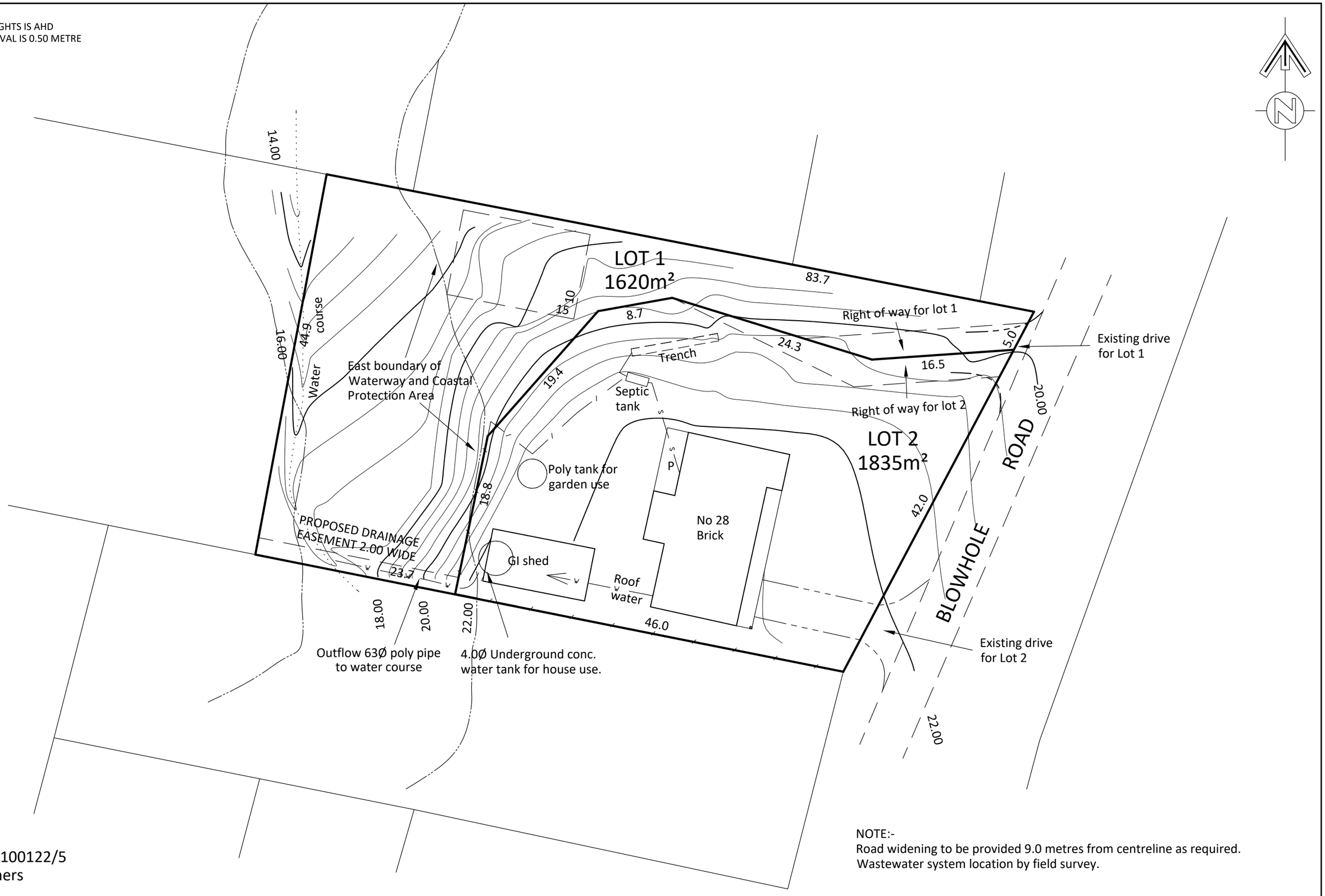
This is the schedule of easements attached to the plan of Phillip Edward THOMPSON
(Insert Subdivider's Full Name)
and John William COLLETT & Poppy Olive COLLETT affecting land in
CT 2405 F 86 & CT 2397 F 87
(Insert Title Reference)
Sealed by Municipality of Tasman on 11th May 1992

Solicitor's Reference .....

J. Wells.
Council Clerk/~~Town Clerk~~

05 x 3134

NOTES:
1. DATUM FOR HEIGHTS IS AHD
2. CONTOUR INTERVAL IS 0.50 METRE



C.T. 100122/5
Owners

NOTE:-
Road widening to be provided 9.0 metres from centreline as required.
Wastewater system location by field survey.

ALL MEASUREMENTS SUBJECT TO FINAL SURVEY

PROPOSED SUBDIVISION
28 BLOWHOLE ROAD
EAGLEHAWK NECK

SCALE 1: 400 (A3)	DATE: JULY 2022	DRAWN: IDS/TNW	DWG NO. D2045-2

T. N. WOOLFORD & ASSOCIATES
LAND & ENGINEERING SURVEYORS
72 GRAHAMS RD, MT. RUMNEY
Phone (03) 6248 5224
m: 0418 248 569
e: tnwoolford@tassie.net.au

GEOTECH 23-076

ROCK SOLID GEOTECHNICS PTY LTD

14/7/2023

CLIENT:

Peter Hofto
163 Orielton Road
ORIELTON
TAS 7172
0417 960 769
peter@rocksolidgeotechnics.com.au

Geotechnical Assessment - Subdivision of Land at 28 Blowhole Road, Eaglehawk Neck

It is proposed to subdivide the land at 28 Blowhole Road, Eaglehawk Neck into two blocks.

Lot 1	162m^2	Vacant site
Lot 2	1835m^2	Current residence site

The Tasman Council have requested the following;

- The wastewater trench must meet the requirements of the Director's Guidelines for On-site Wastewater Management Systems. The setback to the downslope boundary must be 1.5m plus 2m for every degree of average gradient from a downslope property boundary. The applicant will need to demonstrate that the wastewater trench meets this requirement.

A site investigation was completed on Monday 26 June, 2023. This included the augering of several test holes to assess the site for onsite wastewater suitability (4WD mounted SAMPLA25 mechanical auger with 100mm diameter solid flight augers). The locations of the holes are marked on Figure 1.

The current 3-bedroom residence is serviced by a gravity fed septic tank and trench based onsite wastewater system. The septic tank is located to the northwest of the residence (Plate1), and the absorption trench lies to the trench's immediate north (Figure 1).

The current onsite wastewater system cannot comply with the boundary setback requirements of the *2016 Director's Guidelines for On-site Wastewater Management Systems* or the *Statewide Planning Scheme*, as the location of the absorption trench is immediately upslope from the proposed Lot 1 property boundary.

The onsite wastewater system that services the residence on proposed Lot 2 will need to be modified to comply with the requirements outlined in the Tasman Council's RFI. A new wastewater system design is presented below.

ONSITE WASTEWATER ASSESSMENT / SYSTEM DESIGN – 28 Blowhole Road, Eaglehawk Neck

Below find the assessment to determine of the type and size of wastewater treatment system, and the allocation of a Land Application Area (LAA) at 28 Blowhole Road, Eaglehawk Neck. This assessment should be read in conjunction with Site & Soil Evaluation Report (GEOTECH 23-076) - enclosed.

Two potential areas were assessed for installation of a new wastewater LAA. The area adjacent to the garage to the west of the residence (Plate 2) was ruled out due to the restriction in area. Land to the immediate east of the residence (to the west of Blowhole Road) was assessed as a potential LAA (Plate 3). This site is covered in grass and is devoid of trees. The area is flat.

A test hole was completed to assess the site for onsite wastewater disposal suitability.

The profile encountered in the test hole consisted of:

0.00 – 0.20m	SAND: fine grained, greyish brown, rootlets – TOPSOIL
0.20 – 2.10m	SAND: fine grained, brown, dry
2.10m+	Hole terminated at required depth – 2.10m.

Groundwater was not encountered in the test hole.

The site is classified as a Class 1 (SAND) site with an Indicative Permeability of >3.0 m/day.

It is proposed to install an in-ground Advanced Enviro-Septic (AES) bed in this area.

There is suitable available area available for a reserve LAA if required in the future.

The installation of this modified wastewater system ensures compliance with the requirements of the Tasman Council's RFI as outlined in the *2016 Director's Guidelines for On-site Wastewater Management Systems* or the *Statewide Planning Scheme*.

Plate 1 – Looking to the northeast at the residence (RHS) and the current septic tank (foreground).

Plate 2 – Test Hole #1 - Looking to the southwest.

Plate 3 – Looking to the north at the proposed LAA.

COMPLIANCE WITH THE 2016 DIRECTOR'S GUIDELINES FOR ONSITE WASTEWATER

Compliance Table Directors Guidelines for OSWM		
Acceptable Solutions	Performance Criteria	Compliance achieved by
7. Standards for Wastewater Land Application Areas		
A1 Horizontal separation distance from a building to a LAA must comply with one of the following: a) be no less than 6m; b) be no less than: (i) 3m from an upslope boundary or level building; (ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building; (iii) If secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a downslope building.	P1 The LAA is located so that the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.	Complies with A1 LAA > 3m from residence

A2 Horizontal separation distance from downslope surface water to a LAA must comply with (a) or (b) (a) be no less than 100m; or (b) be no less than the following: (i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to down slope surface water.	P2 Horizontal separation distance from downslope surface water to a LAA must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R; b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A2 LAA > 100m from downslope surface water.
A3 Horizontal separation distance from a property boundary to a LAA must comply with either of the following: (a) be no less than 40m from a property boundary; or (b) be no less than: (i) 1.5m from an upslope or level property boundary; & (ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.	P3 Horizontal separation distance from a property boundary to a LAA must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A3 LAA > 1.5m from any property boundaries. Flat site
A4 Horizontal separation distance from a downslope bore, well or similar water supply to a LAA must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient.	P4 Horizontal separation distance from a downslope bore, well or similar water supply to a LAA must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable.	Complies with A4 No known potable bores in the immediate vicinity.
A5 Vertical separation distance between groundwater & a LAA must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.6m if secondary treated effluent	P5 Vertical separation distance between groundwater and a LAA must comply with the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable.	Complies with A5 Groundwater not encountered – test holes 2.10m depth
A6 Vertical separation distance between a limiting layer & a LAA must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.5m if secondary treated effluent.	P6 Vertical setback must be consistent with AS/NZS1547 Appendix R.	Complies with A6 Limiting layer not encountered

ONSITE WASTEWATER SYSTEM DESIGN

The current 3000 litre septic tank will be retained. The septic tank will be retro-fitted with an outlet filter. The effluent leaving the septic tank is to be pumped to an in-ground Advanced Enviro-Septic (AES) bed.

The pump tank (minimum 1000 litre capacity) must be fitted with an alarm in case of malfunction. A strobe light alarm is recommended. A 32mm diameter line will distribute the effluent between the pump and the LAA.

The following calculations determine the size of the AES Bed designed to service the 3-bedroom residence.

3-bedroom residence	5 persons
Tank water	120 litres / person / day
Wastewater Flow Rate	5x 120 = 600 litres / day
Design Loading Rate (DLR)	25mm/day
DLR	25 litres / m^2 / day
Basal Area of Land Application Area	600 / 25 = 24m^2

The Advanced Enviro Septic (AES) system utilizes a modular distribution layout consisting of pipework laid in "system sand" of minimum width 1350mm.

This module consists of 2 runs of 3 x 300mm diameter AES pipes, 150mm apart, with 300mm side-wall clearance on each side - total width 1350mm.

Distribution unit length	=	AES pipe length + (0.3m x 2)
		9m + 0.6m = 9.6m
Width of 4-pipe wide AES unit	=	1.35m
A System Extension is required for this site.		9.6m long x 1.55m wide = 11m^2
Area of AES	=	9.6m x 2.5m = 24m^2

The AES system should be installed by a plumber who has been accredited by Chankar Environmental Proprietary Limited to install Advanced Enviro Septic systems, and who has appropriate experience.

Site Preparation

- Rope off the site to prevent damage to the area during other construction activity on the lot.
- Vehicular traffic over the area must be prohibited to avoid compaction.
- Excavate the existing soil surface, parallel with the contour (cross slope) to a depth of 750mm over the selected wastewater land application area.
- Rake/scarify the exposed soil surface.
- Connect the septic tank and AES bed in accordance with the AES site instructions (see below) and the design plans attached.
- The AES pipe must be laid in a bed of approved "system sand". This is a coarse sand meeting the specifications as listed below.

AES System Sand Specifications

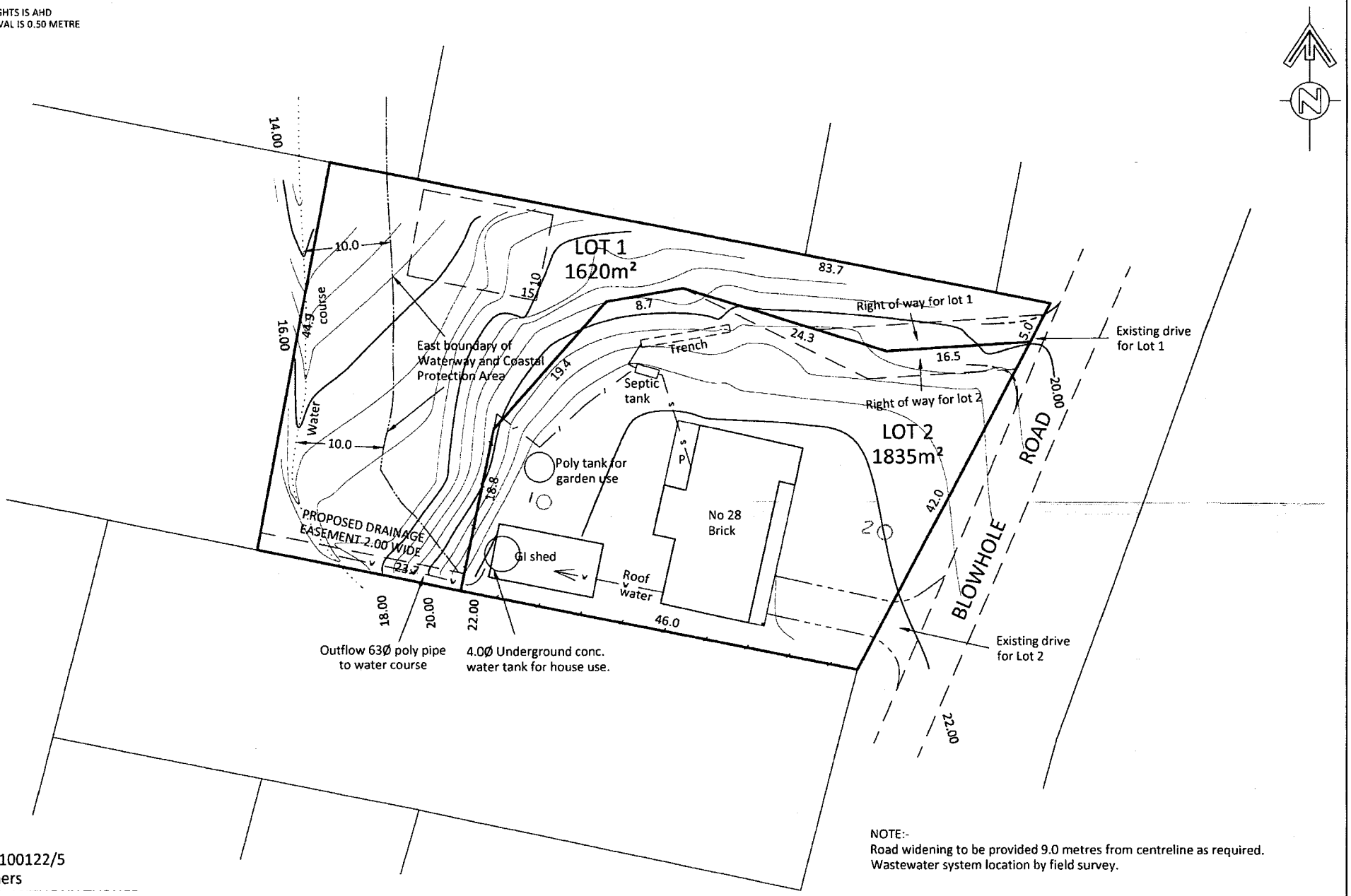
- Percentage Restrictions - 35% or less of the total sand may be gravel. 40%-90% of the total sand is to be coarse and very coarse sand.
- Gravel Quality Restrictions - No gravel is to exceed 9mm in diameter. No gravel is smaller than 2mm in diameter.
- Coarse Sand Quality Restrictions - No coarse sand is smaller than 0.5mm in diameter.
- Fines Quality Restrictions - No more than 2% of the total sand may pass through a 75μ m sieve.

Venting – AES system and septic tank

- Ensure that roof vent comprises a minimum of single 80mm diameter pipe or 2 x 40mm diameter vent pipes.
- Roof vent to be a minimum of 3m above ground vent.
- Venting of the septic tank is to be consistent with NCC Pt 3 Tas F101.2.

Low vent as per AES pipe layout plan (Low vent at end of pipework).

NOTES:
1. DATUM FOR HEIGHTS IS AHD
2. CONTOUR INTERVAL IS 0.50 METRE



C.T. 100122/5
Owners

NOTE:-
Road widening to be provided 9.0 metres from centreline as required.
Wastewater system location by field survey.

ALL MEASUREMENTS SUBJECT TO FINAL SURVEY

PROPOSED SUBDIVISION
28 BLOWHOLE ROAD
EAGLEHAWK NECK

SCALE 1: 400 (A3)	DATE: JULY 2022	DRAWN: IDS/TNW	DWG NO. D2045-2

T. N. WOOLFORD & ASSOCIATES
LAND & ENGINEERING SURVEYORS
72 GRAHAMS RD, MT. RUMNEY
Phone (03) 6248 5224
m: 0418 248 569
e: tnwoolford@tassie.net.au

GDA94 MGA55 : 575229E, 5236534N 1:425 **Disclaimer and Copyright Notice**

ADVANCED ENVIRO-SEPTIC™ "Always The First Option"

Advanced Enviro-septic Design Calculator V9.0 ©

AES The World Leader in Passive Solutions ©

Site Address	28 Blowhole Rd, Eaglehawk Neck		State TAS	Post Code	
Client Name				Date of Site Visit	26/6/23
Designers Name	Peter Hofto, Rock Solid Geotechnics Pty Ltd	Designers Ph Number	0417 960 769	Designer Lic (e.gQBCC)	CC6159I
Lic Plumber	To be announced	Plumber Ph Number		Plumb / Drainer Lic Number	TBA
Council Area	Tasman	Designers AES Cert Number	1463	Date	14/7/23

This Calculator is a guide only, receiving soil classification, surface water, water tables and all other site constraints addressed by the qualified designer.

System Designers site and soil calculation data entry		IMPORTANT NOTES
Enter AES L/m loading rate, "30" for ADV Secondary or "38" Secondary	38	*>> This design is for a SECONDARY system.*
Is this a new installation Y or N	Y	**>> Minimun single vent size is 80mm or 2 x 50mm house vents**
Number of Bedrooms	3	**>> This is not used in ANY Calculation. If not known use N/A or 0.**
Number of persons	5	**>> A septic tank outlet filter is NOT RECOMMENDED**
Daily Design Flow Allowance Litre/Person/Day	120	
Number of rows required to suit site constraints	2	**>> The maximum length of a single AES pipe run is 30m or 10 PIPES**
Infiltration Soil Category from site/soil evaluation. CATEGORY	1	
Design Loading Rate based on site & soil evaluation DLR (mm/day)	25	
Bore log depth below system Basal area		**>> Min depth 1.5m. Check water table/restrictive layer**
Is this design a GRAVITY system with no outlet filter? Y or N	n	**>> PUMPED. HIGH & LOW vent required including a Velocity Diffuser**

COMMENTS :- *" The outcome must be important to everyone. "*

- Designers need to be familar with special requirements of Local Authorities. ie - Minimum falls from Septic tank outlets to Land application areas etc

- Plumbers are reminded to practice good construction techniques as per AS 1547 & as provided on AES installation instructions supplied with components.

AES System Calculator Outcomes		
Total System load - litres / day (Q).	**600**	l/d
Min Length of AES pipe rows to treat loading	**7.89**	lm
Number of FULL AES Pipe lengths per row	**3**	lths
Total Capacity of AES System pipe in Litres	**1272**	ltr.

AES dimensions	AES System	System Extension
Length:(L)	9.60m	9.60m
Width:(W)	1.35m	1.15m
Sand Depth :	0.75m	0.15m
Area m2	13.0 m^2	11.0 m^2

USE CUT LENGTHS OF PIPE IN THIS DESIGN? (ENTER Y)	n			
IF YOU WISH TO USE A TRENCH EXTENSION DESIGN OPTION ENTER "Y"	n	Enter Custom Width in metre		

AES INFILTRATION FOOT PRINT AREA - L = Q / (DLR x W)	Length		Width	Minimum AES foot print required	
for this Basic Serial design is	**9.600m**	x	**2.50m**	= **24.0**	m2 total

AES pipes are best centered in the trench parallel to the site slope

Code	AES System Bill of Materials.		
AES-PIPE	AES 3 metre Lengths required	**6**	lths
AESC	AES Couplings required	**4**	ea
AESO	AES Offset adaptors	**4**	ea
AESODV	AES Oxygen demand vent	**2**	ea
AES-IPB	AES 100mm Inspection point base	**2**	ea
TD Kit 4	4 Hole Distribution Box Kit		ea
TD Kit 7	7 Hole Distribution Box Kit		ea
VS43-4	Sweet Air Filter VS43-4		ea
AES DESO	Double Offset Adaptors		ea
	TOTAL SYSTEM SAND REQUIRED (Estimate Only)	**14**	m3

Chankar Environmental Use Only

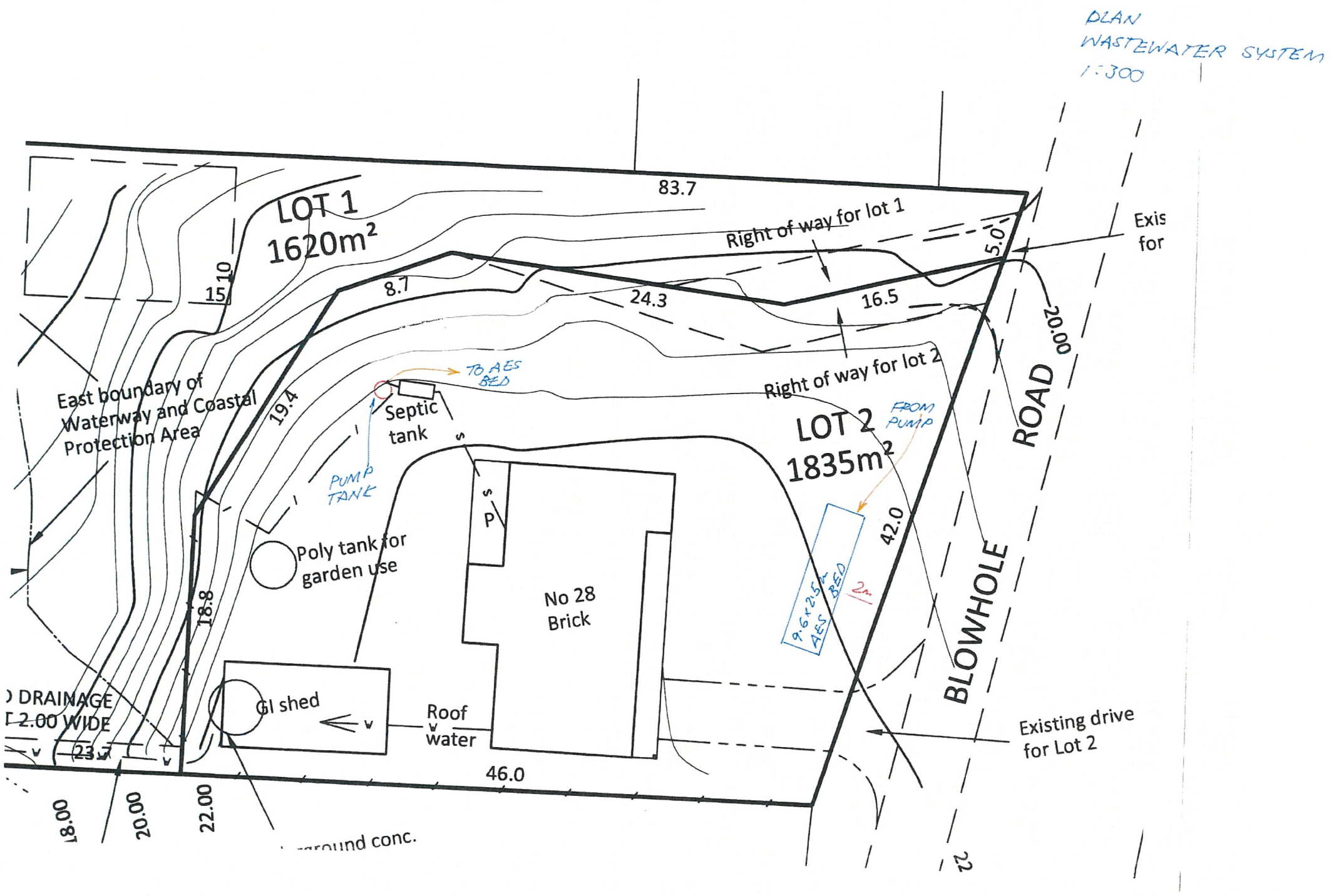
ADVANCED ENVIRO-SEPTIC™ "Nature's Wastewater Solutions"

Digitally signed by Steve Dennis
DN: cn=Steve Dennis, o=Chankar Enviromental, ou=Design Review, email=steve@enviro-septic.com.au, c=US
Date: 2023.07.14 09:50:26 +10'00'

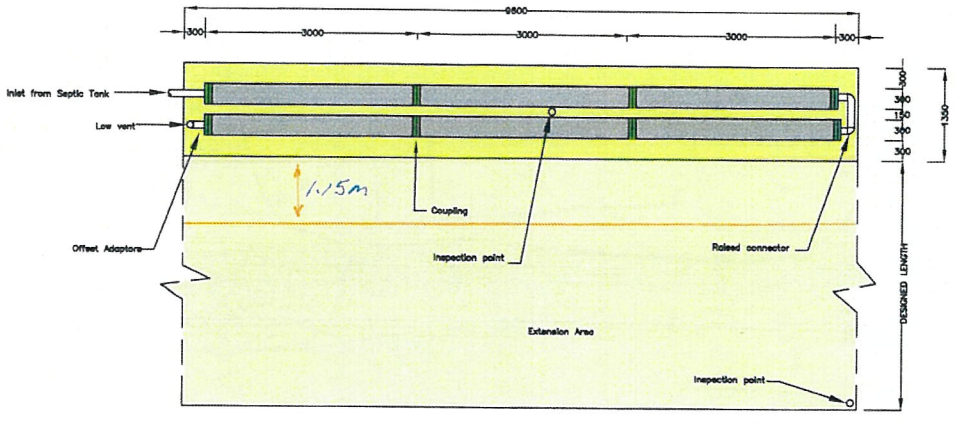
Please email your AES Calculator (EXCEL FORMAT), Site Layout & AES Design to
designreview@enviro-septic.com.au

designreview@enviro-septic.com.au

- *The AES Calculator is a design aid to allow checking of the AES components, configuration and is a guide only. Site and soil conditions referencing AS1547 are calculated and designed by a Qualified Wastewater Designer.*
- *Chankar Environmental accepts no responsibility for the soil evaluation, loading calculations or DLR entered by the designer for this calculator.*
- *AES pipes can be cut to length on site. They are supplied in 3 meter lengths only.*
- *AES ONLY supply AES components as detailed in the Bill of Materials.*
- *SEPTIC Tank & other components including SAND will need to be sourced from other suppliers. Refer to our WEBSITE www.enviro-septic.com.au OR 07 5474 4055*


PLAN
WASTEWATER SYSTEM
1:300
LOT 1
1620m²
LOT 2
1835m²
83.7
Right of way for lot 1
Right of way for lot 2
Exis
for
5.0
20.00
ROAD
BLOWHOLE
24.3
16.5
8.7
15.10
19.4
East boundary of
Waterway and Coastal
Protection Area
TO AES
BED
Septic
tank
PUMP
TANK
FROM
PUMP
Poly tank for
garden use
No 28
Brick
42.0
9.6x2.5
AES
BED
2m
18.8
GI shed
Roof
water
Existing drive
for Lot 2
DRAINAGE
2.00 WIDE
23.7
46.0
18.00
20.00
22.00
ground conc.
22

SYSTEM SANS EXTENSION REQUIRED 1.15m WIDE



AES PIPE LAYOUT DETAILS

SCALE

10

30

ADVANCED ENVIRO - SEPTIC

OWNER / ENGAGED BY

LOT AND PLAN

N

AMENDMENTS

ISSUE	DATE	SUBJECT	AUTHORISED
A	24/01/2013	REVISION A	R CRISP

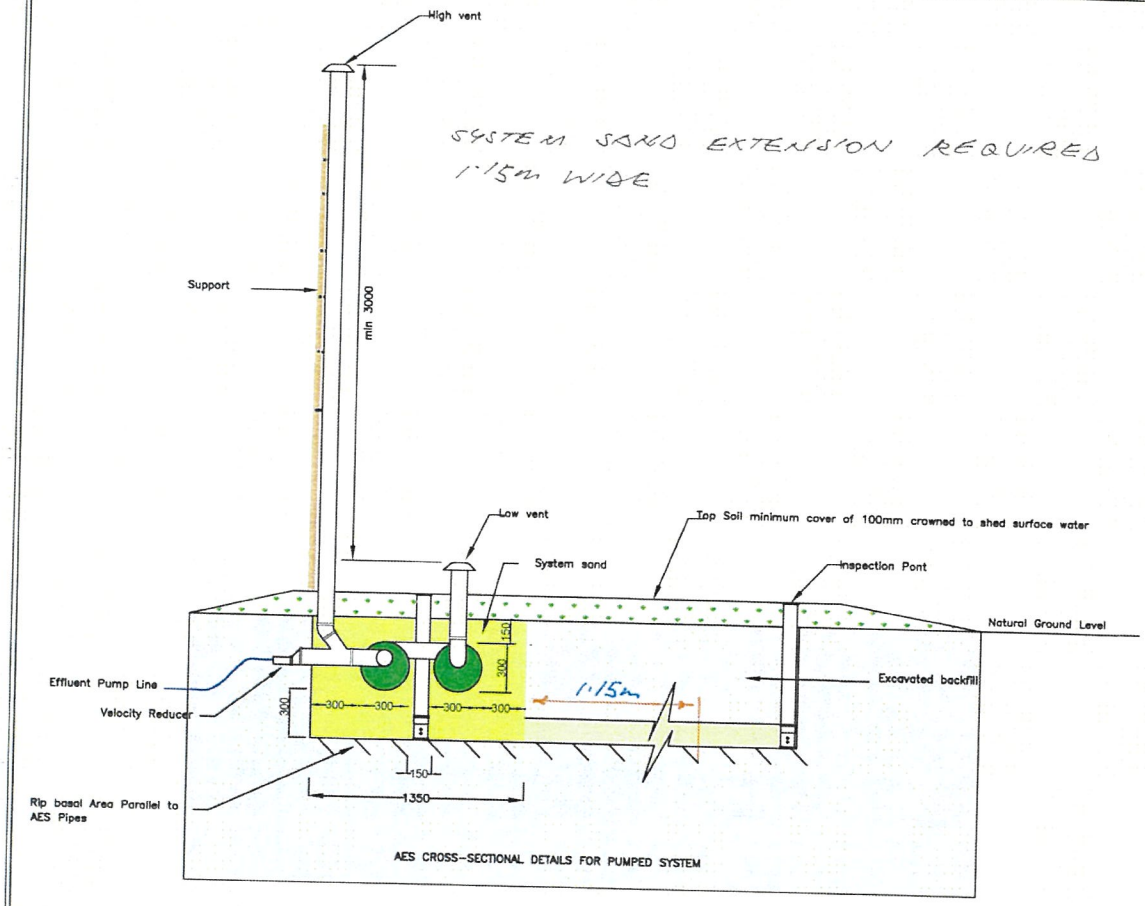
CHANKAR ENVIRONMENTAL PTY LTD
T/A
ADVANCED ENVIRO-SEPTIC
QBCC LICENCE NUMBER
150 238 31
Phone +61 7 5474 4055
Fax +61 7 5335 1891
Email designreview@enviro-septic.com.au
www.enviro-septic.com.au

T SHERPA
DESIGNER DATE

ADVANCED ENVIRO-SEPTIC PIPE LAYOUT DETAILS FOR TWO ROWS THREE PIPES

SCALE
1:70 (A4)

PROJECT JOB NUMBER	REVISION	SHEET NO
AES - CHK	A	SL1



SCALE

10

30

ADVANCED ENVIRO - SEPTIC

OWNER / ENGAGED BY

LOT AND PLAN

N

AMENDMENTS

ISSUE	DATE	SUBJECT	AUTHORISED
A	24/01/2018	REVISION A	R CHHETRI

CHANKAR ENVIRONMENTAL PTY LTD
T/A
ADVANCED ENVIRO-SEPTIC
QBCC LICENCE NUMBER
150 238 31
Phone +61 7 5474 4055
Fax +61 7 5335 1691
Email designreview@enviro-septic.com.au
www.enviro-septic.com.au

T SHERPA

DESIGNER DATE

ADVANCED ENVIRO-SEPTIC CROSS SECTIONAL DETAILS FOR TWO ROWS PUMPED SYSTEM

SCALE

1:30 (A4)

PROJECT JOB NUMBER	REVISION	SHEET NO
AES - CHK	A	SL1

SITE AND SOIL EVALUATION REPORT

Soil Category:

	Modified Emerson Test Required	No
1,...2,...3,...4,...5,...6	If Yes, Emerson Class No.	
Measured or Estimated Soil Permeability (m/d):		3.0m/d
Design Loading Rate (DLR)		25 mm/day
Geology:		Quaternary sediments

Slope:	0 degrees
Drainage lines / water courses:	Nil
Vegetation:	Grass
Site History: (land use)	Residential block
Aspect:	East
Pre-dominant wind direction:	Northwest to southwest
Site Stability: Will on-site wastewater disposal affect site stability?	No
Is geological advice required?	No
Drainage/Groundwater:	Not Encountered
Depth to seasonal groundwater (m):	Not Encountered
Are surface or sub-surface drains required upslope of the land application area?	No
Date of Site Evaluation:	26/6/2023
Weather Conditions:	Fine

ADVANCED ENVIRO-SEPTIC™
"Always The First Option"

Advanced Enviro-Septic™ Installation Instructions

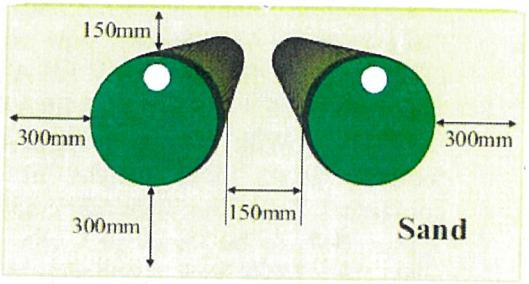
1. SET OUT

i. Set out should be in accordance with the design approved by Council.

ii. The length of each run of AES System pipe must be horizontal

iii. AES calculator footprint dimensions are based upon the DLR of the receiving soil and are the minimum foot print area.

iv. Any system extension must be to the down slope side unless the infiltration footprint is level.



AES Sand Coverage Minimums

2. EXCAVATION – (track machinery causes less compaction of the soil.)

i. Excavate as required leaving the base of excavation loose to aid infiltration. Strip and separate top soil for covering installation as per AS 1547:2012.
DO NOT damage infiltration area by driving equipment or walking on excavation prior to placement of sand layer. Refer to Appendix L Sec L7 of AS1547: 2012. Construction Techniques. Rip or scarify the infiltration area to a depth of 150 to 200mm minimum parallel to the AES pipe on all systems especially systems in Cat 4,5,6 soil with high clay content. (Refer to the design and report for this onsite installation)

"L7.1 Good construction technique AS 1547:2010
The following excavation techniques shall be observed so as to minimise the risk of damage to the soil:
(a) Plan to excavate only when the weather is fine;
(b) Avoid excavation when the soil has a moisture content above the plastic limit. This can be tested by seeing if the soil forms a 'wire' when rolled between the palms;
(c) During wet seasons or when construction cannot be delayed until the weather becomes fine, smeared soil surfaces may be raked to reinstate a more natural soil surface, taking care to use fine tines and only at the surface;
(d) When excavating by machine, fit the bucket with 'raker teeth' if possible, and excavate in small 'bites' to minimise compaction; and
(e) Avoid compaction by keeping people off the finished trench or bed floor.
In particular for trenches and beds:
(f) If rain is forecast then cover any open trenches, to protect them from rain damage;
(g) Excavate perpendicular to the line of fall or parallel to the contour of sloping ground; and
(h) Ensure that the inverts are horizontal.

CL7.1
Damage can be done by:
(a) Smearing, where the soil surface is smoothed, filling cracks and pores;
(b) Compacting, where the soil porosity is reduced; and
(c) Puddling, where washed clay settles on the base of the trench to form a relatively impermeable layer.
In particular, cohesive soils, or soils containing a significant quantity of clay, are susceptible to damage by excavation equipment during construction.

ii. If using a raised bed configuration ensure you have sufficient soil to cover entire mound or bring in enough sand to fill out batters prior to covering with topsoil etc. as per AS 1547:2012.

3. SYSTEM SAND – Course washed sand with less than 2mm silt (ASTM C-33)

i. Place minimum150mm system sand to extension area and minimum 300mm under AES pipe footprint area.

ii. Place runs of AES System pipe roughly in position (THE FABRIC SEAM MUST BE AT THE TOP AND THE WHITE BIO-ACCELERATOR AT THE BOTTOM.) With 300mm minimum clearance to all footprint edges. Join lengths of AES with AES connectors. To do this slide fabric and fibre back on the 2 pipe ends to be joined and clip AES connector in place. Slide fabric back over connector.

iii. Place offset adaptors on each run with the 100mm hole at the top.

iv. Ensure minimum 150mm between AES system pipes. This can be done with pegs, short pieces of 150mm pvc or reusable AES Spacer Plates. One side provides the 300m spacing required for minimum system sand. The opposite side must have a minimum of 300mm of system sand beyond the edge of the AES System pipe.

v. Place system sand around AES pipes ensuring they stay level and in position. Remove and progressively position spacer plates or PVC pipe until all system pipes are surrounded by system sand to the top. **Walk sand between rows to aid compaction.**

vi. EXTENSION SAND depth is a minimum of 150mm.

4. CONNECTING ROWS

i. Connect rows with 100mm pipe as required with a maximum 100mm extending into the AES system pipe. (Raised connection – After placing raised connection pipes the top of the PVC pipe must be level with the top of the AES pipe. Lift and pack with sand.) This ensures airflow is not restricted and buffer capacity is maximised.

5. VENTING

i. Ensure the system has a High Vent and a low vent. As per design. Low vent is a minimum 150mm above ground. Vents can be located any distance from the system provide they have no water traps that can block oxygen flow through the system. The High Vent must be 3 meters higher than the low vent.

ii. Pressurised or steep gravity systems will require a **Velosity Diffuser**

6. BACK FILLING

i. Ensure a minimum of150mm System sand covers the AES pipes and PVC pipe work.

ii. Refer to the Onsite design and Council approval and ensure that all diversions drains or site specific requirements are correctly installed.

iii. Back fill with natural soil and compact. System extensions may require compaction in a couple of layers depending on the depth.

iv. On mounds and down slopes strip vegetation and place fill evenly and level to all sides to avoid breakout from low points during high seasonal loadings.

v. Cover excavation area with topsoil creating a finished surface level 50 to 100mm higher than the natural surface level ensuring that water sheds off the land application area and does not pond, compact lightly and seed or grass when completed.

For Installation support phone 0754744055

Section 94
Section 106
Section 129
Section 155

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Form **35**

To: *Owner name*

Address

Designer details:

Name: PETER HOFTO

Category: Hydraulic - Restricted

Business name: ROCK SOLID GEOTECHNICS PTY LTD

Phone No: 0417960769

Business address: 163 Orielton Road

Orielton 7172

Fax No:

Licence No: CC 6159I

Email address: peter@rockolidgeotechnics.com.au

Details of the proposed work:

Owner/Applicant

Designer's project reference No. GEOTECH 23-076

Address: 28 Blowhole Road, Eaglehawk Neck

Lot No:

Type of work: Building work ☐ Plumbing work X

ONSITE WASTEWATER MANAGEMENT SYSTEM

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	X Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	
Deemed-to-Satisfy:		Performance Solution: x (*X the appropriate box*)

Design documents provided:	

Drawing numbers:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 14/7/2023
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 14/7/2023
Computations:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 14/7/2023
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 14/7/2023

Standards, codes or guidelines relied on in design process:	
AS1547-2012 BUILDING ACT 2016	

Attribution as designer:	

I PETER HOFTO – ROCK SOLID GEOTECHNICS P/L 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.

	Name: (print)	*Signed*	*Date*
Designer:	PETER HOFTO		14/7/2023
Licence No:	CC 6159I		

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: _____ *Owner /Agent*

_____ *Address*

Qualified person details:

Qualified person: Peter Hofto – Rock Solid Geotechnics Pty Ltd

Address: 163 Orielton Road, Orielton 7172 Phone No: 0417960769

Licence No: _____ Email address: peter@rocksolidgeotechnics.com.au

Qualifications and Insurance details:
BSc (Hons) – Geology / Geophysics
PI Insurance – Lloyds Underwriting
PL Insurance – CGU Insurance Ltd
(description from Column 3 of the Director of Building Control's Determination)

Speciality area of expertise:
Site & Soil Evaluation and Land Application System Design
(description from Column 4 of the Director of Building Control's Determination)

Details of work:

Address: 28 Blowhole Road, Eaglehawk Neck Lot No: _____

The assessable item related to this certificate:
Onsite wastewater management – site & soil evaluation for onsite wastewater management capability.
Characterisation of wastewater and predicted hydraulic loadings.
Selection of land application area.
Selection of design loading rate.

(description of the assessable item being certified)
Assessable item includes –
- *a material;*
- *a design*
- *a form of construction*
- *a document*

		- *testing of a component, building system or plumbing system* - *an inspection, or assessment, performed*

Certificate details:	

Certificate type:	Site & Soil Evaluation and Land Application System Design	*(description from Column 1 of Schedule 1 of the Director of Building Control's Determination)*

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

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

or

a building, temporary structure or plumbing installation:

In issuing this certificate the following matters are relevant –

Documents:	AS 1547:2021 On-site domestic wastewater management
References:	AS 1547:2021 On-site domestic wastewater management Director's Guidelines for Onsite Wastewater Management 2015 Interim Planning Scheme

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

Site & soil evaluation and design report - Proposed on-site wastewater management system at 28 Blowhole Road, Eaglehawk Neck by Rock Solid Geotechnics P/L, dated 14/7/2023

Scope and/or Limitations

Exclusions: Design of AES Bed

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:		GEOTECH 23-076	14/7/2023

Section 94
Section 106
Section 129
Section 155

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Form **35**

To: _____ *Owner name*

_____ *Address*

Designer details:

Name: Stephen John Dennis

Category: Civil Engineer

Business name: Advanced Enviro Septic

Phone No: 0455 826 203

Business address: PO Box 1556

Noosaville 4566

Fax No:

Licence No: 373083211

Email address: stevedennis913@gmail.com

Details of the proposed work:

Owner/Applicant

Designer's project reference No. GEOTECH 23-076

Address: 28 Blowhole Road, Eaglehawk Neck

Lot No:

Type of work: Building work ☐ Plumbing work X

ONSITE WASTEWATER MANAGEMENT SYSTEM

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	X Hydraulic design	Engineer
	☐ Other (specify) Advanced Enviro Septic Bed	

Deemed-to-Satisfy:	Performance Solution: X (*X the appropriate box*)	
Drawing numbers:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 14/7/2023
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 14/7/2023
Computations:	Prepared by: ROCK SOLID GEOTECHNICS P/L	Date: 14/7/2023
Performance solution proposals: AES Tasmania NCC Performance	Prepared by: Stephen Dennis	Date: 14/7/2023

Standards, codes or guidelines relied on in design process:
AS1547-2012 Director's Guidelines for Onsite Wastewater Management

Attribution as designer:

I Stephen Dennis 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.

	Name: (print)	*Signed*	*Date*
Designer:	Stephen Dennis	ADVANCED ENVIRO-SEPTIC "Nature's Wastewater Solutions" Digitally signed by Steve Dennis DN: cn=Steve Dennis, o=Chanlar Enviromental, ou=Design Review, email=steve@enviro-septic.com.au, c=US Date: 2023.07.14 09:51:19 +10'00'	14/7/2023
Licence No:	373083211		

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: _____ *Owner /Agent*

_____ *Address*

_____ _____ *Suburb/postcode*

Qualified person details:

Qualified person: Stephen John Dennis

Address: PO Box 1556

Noosaville 4566

Phone No: 0455 826 203

Fax No:

Licence No: 373083211

Email address: stevedennis913@gmail.com

Qualifications and Insurance details: BEng(Hons), GradDipMgt

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

Speciality area of expertise: Professional Engineering
Wastewater Design
NER, NPER, CPEng, APEC, IntPE(Aust), RPEQ20663

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

Details of work:

Address: 28 Blowhole Road, Eaglehawk Neck

Lot No:

Certificate of title No:

The assessable item related to this certificate: Design of an onsite wastewater management system.

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

Certificate details:

Certificate type: On-site wastewater management – System design

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

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

- (•) building work, plumbing work or plumbing installation or demolition work

OR

- ( ) a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:	*Geotech 23-076 Rock Solid Geotechnics P/L*
Relevant calculations:	AES Calculator – Chankar Environmental
References:	NCC Vol 3. Refer to AES Tasmania NCC Performance Solution V4. AS/NZS 1547.2012 - Onsite domestic wastewater management Director's Guidelines for Onsite Wastewater Management 2017 Advanced Enviro Septic Design & Installation Manual, Advanced Enviro-Septic Installation Instructions and, Home Owner's Manual; all by Chankar Environmental Pty Ltd, 62 Rene Street, Noosaville QLD 4566

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

Confirmation of the performance solution for design of Advanced Enviro-Septic System at (*insert site address*)

(Evidence of compliance with NCC Vol 3 TAS Section H is provided in the appended document headed "AES Tasmanian NCC Performance Solution")

Scope and/or Limitations

Exclusions – All works other than the above.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:	ADVANCED ENVIRO-SEPTIC™ "Nature's Wastewater Solutions" Digitally signed by Steve Dennis DN: cn=Steve Dennis, o=Chankar Enviromental, ou=Design Review, email=steve@enviro-septic.com.au, c=US Date: 2023.07.14 09:51:38 +10'00'		14/7/2023

ROCK SOLID GEOTECHNICS PTY LTD
Peter Hofto
163 Orielton Rd
Orielton
TAS 7172
0417960769
peter@rocksolidgeotechnics.com.au

14/7/2023

Loading Certificate for Onsite Wastewater System

28 Blowhole Road, Eaglehawk Neck

1 System Capacity:

- (medium/long term) — 3-bedroom residence - 5 persons, 600 litres/day

2 Design Criteria Summary:

- Primary Treated Effluent — 3000 litre Dual-purpose septic tank.
- Soil Category — Class 1 SAND
- Land Application System — 9.6m long x 2.5m wide AES Bed

3 Reserve Area:

- Reserve LAA available to the east of the residence if required.

4 Variation from design flows etc:

- The system should successfully assimilate additional peak loadings which may result from occasional social gatherings provided that this does not exceed use by more than 10 persons in a 24-hour period or more than 2 temporary resident visitors (ie. up to 7 persons total) for a period not exceeding 4 days. Visitors should be advised of the requirement to minimise time spent in showers, not running taps whilst cleaning teeth, and other common sense water conservation measures.

5 Consequences of overloading the system:

- Long term use by more than 5 residents or equivalent may result in overloading of the system, surfacing of effluent, public and environmental health nuisances, pollution of surface water etc.

6 Consequences of under-loading the system:

- Nil.

7 Consequences of lack of operation, maintenance and monitoring attention:

- The septic tank should be pumped at least every 3 years. The outlet filter should be cleaned every 6 months.

Peter Hofto
Rock Solid Geotechnics Pty Ltd

CONDITIONS OF INVESTIGATION

This report remains the property of Rock Solid Geotechnics Pty. Ltd. (RSG). It must not be reproduced in part or full, or used for any other purpose without written permission of this company. The investigations have been conducted, & the report prepared, for the sole use of the client or agent mentioned on the cover page. Where the report is to be used for any other purpose RSG accepts no responsibility for such other use. The Forms 55 and 35 are not transferable to another body without consultation (reissue) from RSG. The information in this report is current and suitable for use for a period of two years from the date of production of the report, after which time it cannot be used for Building or Development Application.

This report should not be used for submission for Building or Development Application until RSG has been paid in full for its production. RSG accepts no liability for the contents of this report until full payment has been received.

The results & interpretation of conditions presented in this report are current at the time of the investigation only. The investigation has been conducted in accordance with the specific client's requirements &/or with their servants or agent's instructions.

This report contains observations & interpretations based often on limited subsurface evaluation. Where interpretative information or evaluation has been reported, this information has been identified accordingly & is presented based on professional judgement. RSG does not accept responsibility for variations between interpreted conditions & those that may be subsequently revealed by whatever means. Due to the possibility of variation in subsurface conditions & materials, the characteristics of materials can vary between sample & observation sites. RSG takes no responsibility for changed or unexpected variations in ground conditions that may affect any aspect of the project. The classifications in this report are based on samples taken from specific sites. The information is not transferable to different sites, no matter how close (ie. if the development site is moved from the original assessment site an additional assessment will be required).

It is recommended to notify the author should it be revealed that the sub-surface conditions differ from those presented in this report, so additional assessment & advice may be provided.

- AS1547-2012: Onsite Domestic Wastewater Management

Any assessment that has included an onsite wastewater system design will require a further site visit / inspection once the system has been installed. It is the responsibility of the client / plumber to inform the author as to when the wastewater system is being installed, and to arrange the final inspection. After the inspection to verify that the system has been installed as per RSG's design a statement will be provided. An additional fee applies for the site visit & issuing the certificate.

RSG is not responsible for the correct installation of wastewater systems. Any wastewater installation is the sole responsibility of the owner/agent and certified plumber. Any variation to the wastewater design must be approved by RSG, and an amended Special Plumbing Permit obtained from the relevant council. The registered plumber must obtain a copy and carefully follow the details in the council issued Special Plumbing Permit. A "Certificate of Completion" will be based on surface visual inspection only, to verify the location of the system. All underground plumbing works are the responsibility of the certified plumber.

PETER HOFTO
ROCK SOLID GEOTECHNICS PTY LTD

northbarker
ECOSYSTEM SERVICES

28 Blowhole Road Eaglehawk Neck - Proposed Subdivision

Bushfire Report and Hazard Management Plan

7th October 2022

(WOF016)

For

313 Macquarie Street, Hobart Tasmania, 7000

03 62319788

admin@northbarker.com.au www.northbarker.com.au

CONTENTS

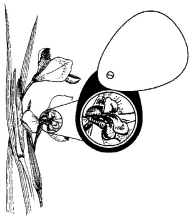
ACKNOWLEDGMENTS

Client:

Survey and bushfire report: Cameron Geeves and Philip Barker

HMP: Philip Barker

Mapping: Eric Hong



1. INTRODUCTION

The following proposal is for the development of a 2 Lot subdivision at 28 Blowhole Road, Eaglehawk Neck. The development site is on a title of 3450 m^2 (Title Ref: 100122/5, PID: 7861401).

Tasman Council requires a Bush Fire Hazard Management Plan (HMP) demonstrating the required BAL for the proposal and the proposed mitigation in compliance with the AS3959 (2018).

The BHMP is required to be developed for the purposes of Tasmanian Planning Scheme – Bushfire-Prone Areas Code C13.0. This bushfire hazard management plan addresses the requirements for both lots in the subdivision.

2. SITE DESCRIPTION

The land is within the municipality of Tasman Council and falls within the bushfire overlay of the *Tasmanian Planning Scheme – Tasman*.
The site is coastal and sits on the southern side of the Eaglehawk Neck. A small, unnamed stream runs down the properties western boundary, which flows into Eaglehawk Bay. This site itself slopes moderately to the west towards this stream while the broader area slopes gently to the north. Both lots are accessed from Blowhole Road.

The existing dwelling is surrounded by low threat vegetation in the form of managed gardens and lawns occurring across the site. The property slopes towards an unnamed stream which flows into Eaglehawk Bay, this stream is bounded by a thin strip of weedy riparian vegetation on and adjacent to the lot which flows towards more native riparian woodland to the north. To the north, south and west of the property are small lots with existing dwellings and managed gardens and lawns. East of the property, on the coastal side of Blowhole Road is the Pirates Bay Nature Recreation Area.

See Figure 1 for the context and locality of the proposal.

Limitations:

This report on based on site measurements at the time of inspection and from information provided by the proponent. The report is limited in scope to bushfire hazard assessment only. The assessment is based on this building proposal and its findings are for this site only. Future changes to the building proposal or changes in the vegetation that affect bushfire hazard have not been considered.

3. PROPOSED USE

The proposal is for a two-lot residential subdivision to create two low density residential lots.

Both lots will be serviced by static water. For firefighting purposes both lots will have a dedicated static water supply and have independent access.

4. BUSHFIRE SITE ASSESSMENT

4.1 VEGETATION

The vegetation on both lots has been assessed as low threat vegetation. Vegetation on the land adjacent to the north, south and west is also considered to be low threat (Plates 1 - 4). Riparian vegetation on the land north of lot 1 is considered low threat vegetation, this is due to the managed gardens surrounding and throughout the understory (plates 5 and 6). To the east, the Pirates Bay Nature Recreation Area consists of a matrix of scrub and woodland.

The existing vegetation is depicted in Figure 2 and tabulated in Table 1.

4.2 SLOPE AND FIRE PATHS

Within 100 m of the proposed subdivision the land slopes gently to the north (Table 1). Although the land slopes to the north, the most likely direction of a wildfire is from the east. Given the expanse of native vegetation to the southwest of the proposal there is also the possibility of wildfire attack from this direction. Only the slopes that affect the BAL rating at the proposed house sites are reported in Table 1, although there are changes in slope within the 100m zone but beyond the distance that affects the BAL rating on the building areas.

4.3 DISTANCE

Table 1 and Figure 2 indicate the site characteristics for a 100 m radius that have been assessed to determine the bushfire attack level of the building and provide the dimensions for the BHMA for a BAL 19 solution as per Section 2 of AS 3959. All aspects have been resolved to BAL 19 by the bushfire hazard management plan (Appendix 1). The distances from each building area to the northern and eastern lot boundaries are in Table 2.

NOTE: All distances are based on the existing and proposed building areas illustrated in Figure 2. This HMP is relevant to this subdivision application and specific location of the proposed building area illustrated below. Any application to build a dwelling in an alternative location will require a new HMP specific to the new location.

Figure 1: The location and context of 28 Blowhole Road, Eaglehawk Neck

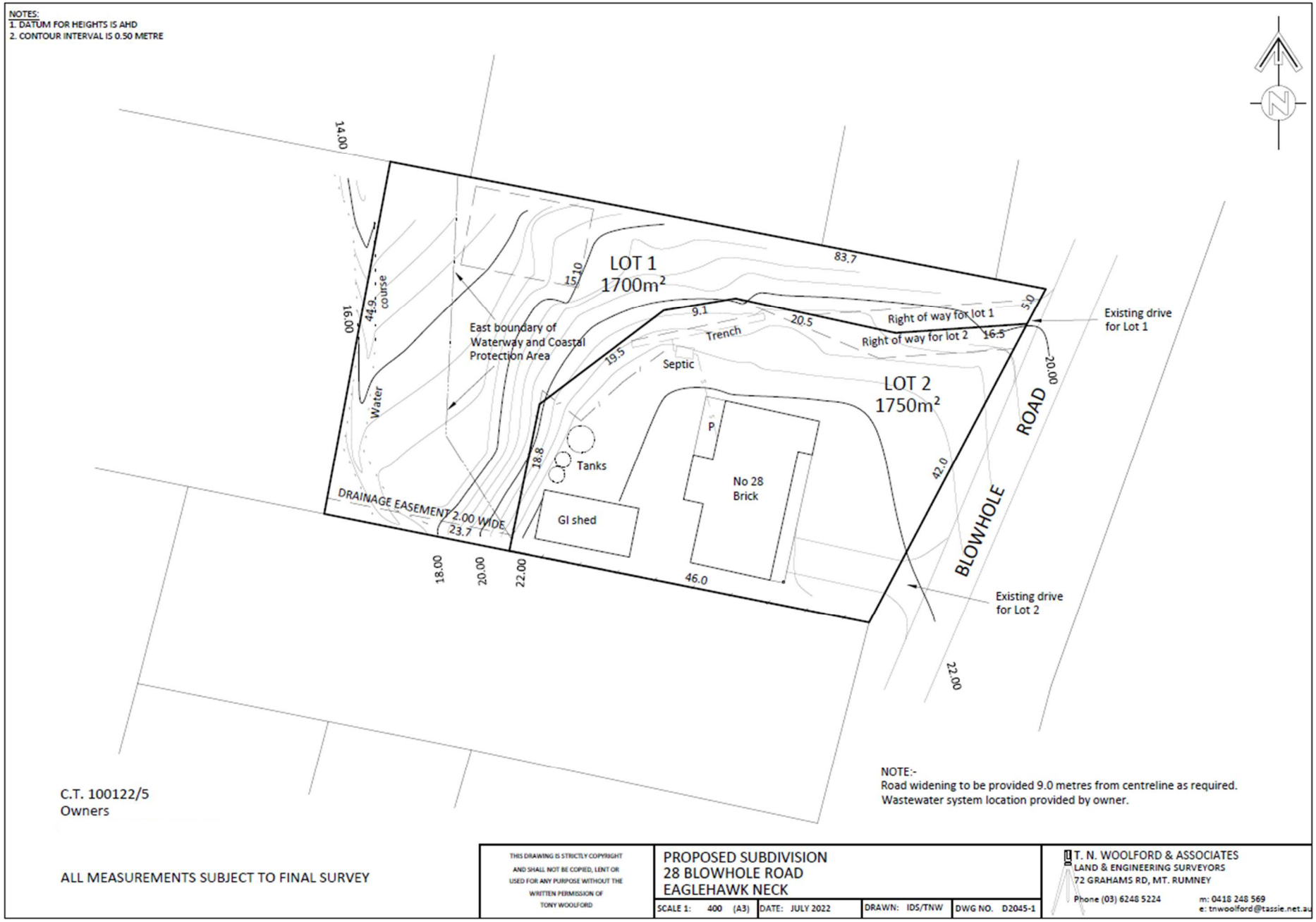


Figure 2: Plan of subdivision for 28 Blowhole Road, Eaglehawk Neck

Plate 1: Low threat vegetation on the adjacent lot to the north of the proposed subdivision

Plate 2: Looking east from the existing dwelling (lot 2) – foreground low threat vegetation with a matrix of scrub and woodland beyond

Plate 3: South, existing dwellings with managed gardens south of the proposed subdivision

Plate 4: South, existing dwellings with managed gardens south of the proposed subdivision (forest beyond 100 m of property)

Plate 5: Understory of vegetation immediately north of the subdivision on adjacent lot

Plate 6: Weedy riparian, vegetation north of the proposed subdivision

Table 1. Slope and vegetation characteristics and AS3959 solution for BAL 19

Quadrant	Vegetation class Table 2.3 AS3959	Effective Slope (degrees)	Distance under effective slope (m)	Minimum Defendable Space Required for BAL-19 (m)	Exclusions of low threat vegetation under 2.2.3.2 AS3959
Lot 1					
North	Low threat vegetation	0 - 5 ^{o}	0 – 60 m	0 m	LTV
East	Low threat vegetation	flat/upslope	0 – 70 m	0 m	LTV
South	Low threat vegetation	upslope	100 m	0 m	LTV
West	Low threat vegetation	flat/upslope	100 m	0 m	LTV
Existing dwelling					
North	Low threat vegetation	0 - 5 ^{o}	0 – 75 m	0 m	LTV
East	Low threat vegetation	0 - 5 ^{o}	0 – 24 m	0 m	LTV
East	Scrub	0 - 5 ^{o}	24 – 100 m	19 m	N/A
South	Low threat vegetation	flat/upslope	100 m	0 m	LTV
West	Low threat vegetation	flat/upslope	100 m	0 m	LTV

Table 2. Building area size and location for lot 1 and the existing dwelling on lot 2. All distances are measured from the north-eastern corner of each building area

Building Area (BA)	BA (m^2)	Distance to Northern title boundary (m)	Distance to Eastern title boundary (m)
Lot 1	150	5 m	55 m
Existing dwelling - lot 2	340 m^2	22 m	18 m

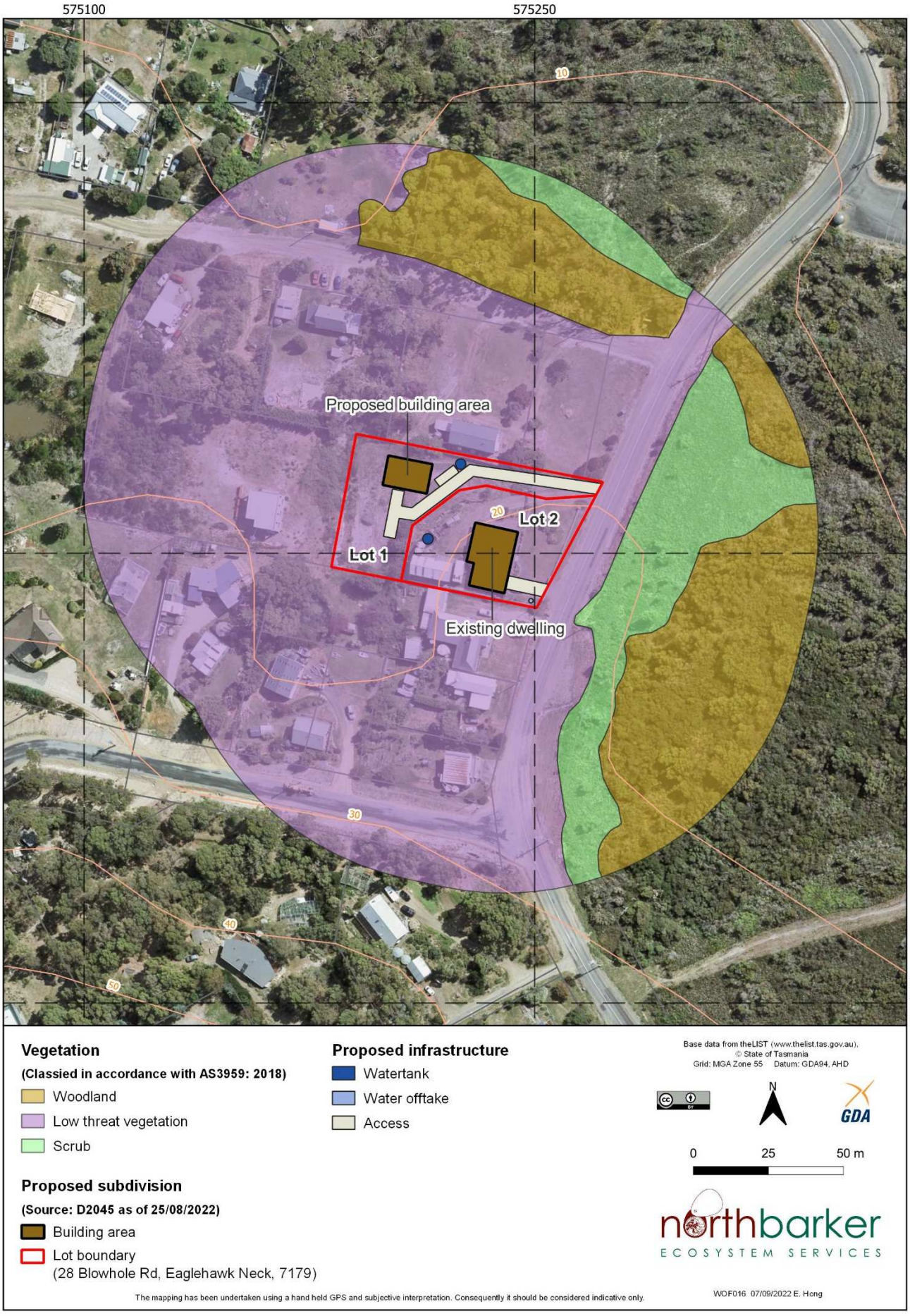


Figure 3. Vegetation and contours in relation to the site

BUSHFIRE PRONE AREAS MANAGEMENT OBJECTIVES

The Bushfire-Prone Areas Code of the Tasmanian Planning Scheme C13.0 applies to the subdivision of land that is located within, or partially within, a bushfire prone area. This code has been developed to ensure that use and development is designed, located, serviced, and constructed to reduce the risk to human life and property, and the cost to the community, caused by bushfires.

Appendix 2 of this report tabulates the specifications for standards set out in C13.6 for subdivisions. This proposal must comply with these requirements as set out in Table 3 below.

Public access via Blowhole Road is a dead-end road greater than 200 m long and 5.5 m wide. The distance to 28 Blowhole Road from the Arthur Highway is 250 m. This public access is over 7 m wide this entire length.

Table 3. Compliance of the subdivision proposal with subdivision proposal with the TPS 13.0 Bushfire Prone Areas Code

	Deemed to satisfy requirements (Elements)	**Requirement (Appendix 2)**	**Compliance**
C13.0	Construction requirements	AS 3959 - 2018	TBD
C13.6.1	Hazard management area	C 13.6.1 (A1)	Yes, both lots have a compliant hazard management area. A hazard management area must have ground cover vegetation managed to less than 100 mm height, lower tree limbs pruned to above 2 m height and if necessary, remove sufficient trees to achieve a 3 m canopy separation within the HMA. The hazard management area on lot 1 should be implemented and verified by a building surveyor before occupancy. The hazard management area for lot 2 should be verified by council at the time of the subdivision.
C13.6.2	Firefighting access	C13.1 Public A Private C13.2(b and d)	Yes, as per table C13.1 (A) Standards for roads. Yes, as per table C13.2 Standards for property access. Property access to the existing dwelling on lot 2 is 15 m and therefore there are no specific design and /or construction requirements. Property access to lot 1 will be between 30 – 200 m in length and therefore design and construction requirements must comply with table C13.2 (b and d). Access to the building area on lot 1 must be implemented before occupancy and verified by a building surveyor.
C13.6.3	Provision of water supply for firefighting purposes	C13.5 (a-e)	Yes. All parts of the building areas will be within 90 m of a static water point as measured by hose lay. Lot 1 will be compliant subject to a dedicated water supply and compliant water offtake. Lot 2 will be compliant subject to dedicated 10,000L water tank to be installed and maintained for the dwelling as well as the installation of a remotely located offtake to the static water supply associated with the access to the property. The water tank must be switched on at all times.

			All provisions for water supply for both lots must meet the requirements set out in table C13.5 (a – c). The water supply should be implemented lot 1 prior to occupancy and should be verified by a building surveyor. The water supply for lot 2 should be implemented and verified by council before the sealing of titles.

5. MANAGEMENT OF THE HMA AND LANDSCAPING

The bushfire hazard management plan (Appendix 1) has resolved all aspects to BAL 19 as per Table 1. All vegetation within the HMA of the site will be managed in a low fuel state and the following recommendations are made:

1. Required - Maintain HMA in a low fuel state. Ground cover vegetation less than 100 mm tall, trees pruned of low hanging foliage to > 2m.
2. Recommended - Gardens exclude shrubs from within 5 m of the building.
3. Recommended - All aspects to be mineral surface to a minimum of 0.5 m from the building.
4. Recommended - No trees or shrubs within 10 m to exceed the height of the gutters unless leaf shedding gauze is fitted.

References

Australian Standard AS 3959 (2018) Construction of Buildings in Bushfire Prone Areas.

Tasmanian Planning Scheme – Bushfire-Prone Areas Code.

APPENDIX 1. BUSHFIRE HAZARD MANAGEMENT PLAN

Assessment date: 6th of September 2022
Assessor: Philip Barker BFP- 147 1,2,3A,3B,3C

BUSHFIRE ATTACK LEVEL ASSESSMENT REPORT

Bushfire Attack Level (BAL) assessment conducted in accordance with Clause 2.2 Simplified Procedure (Method 1) of AS 3959 – 2018.

This BAL Assessment Report has been provided to determine the BAL (in accordance with AS3959-2018) for the site and where necessary provide recommendations for BAL reduction methods to comply with the Tasmanian planning Schemes Bushfire-Prone Areas Code C13.0. Requirements for water supply for fire fighting and vehicle access and egress for fire fighting have been included; and should part of the Building Surveyors Certificate of Likely Compliance assessment.

Limitations

This HMP is relevant to this subdivision application and specific location of building areas illustrated below. Any application to build a dwelling in an alternative location will require a new HMP specific to the new location.

All measurements have been made using standard practices and may contain small errors of precision.

Compliance with the AS3959 building standards referred to in this assessment does not mean that there is no risk to life or property as a result of bushfire.

A primary limitation is that the BAL value is determined under an FDI of 50. The FDI can be higher under certain weather and fuel conditions and consequently the BAL may also be higher than determined here.

Property Details

Applicants Name:

Municipality: Tasman

PID: 7861401

Certificate of title / number: CT 100122/5

Address: 28 Blowhole Road, Eaglehawk Neck

Proposal: 2 lot subdivision

Bush Fire Attack Level (BAL) 19

Relevant fire danger index: (see clause 2.2.2) FDI 50

Determination of Bushfire Attack Level (BAL 19)

Summary of Compliance Requirements and Recommendations (see Figure 1):

1. Building materials and design must comply with BCA for BAL 19.
2. Public access is compliant at the private access point. Access from Blowhole Road for both lots is less than 200 m long. Access to the building area on lot 1 must be implemented before occupancy and verified by a building surveyor.
3. The hazard management areas must be implemented and continue to be maintained by the respective owner/s before occupancy.
4. Both lots must install a dedicated water supply and remote water offtake as per the requirements of table C13.5. The water supply should be implemented on both lots prior to the sealing of titles for lot 2 and before occupancy of lot 1 and should each be verified by council and a building surveyor respectively.

Determination of vegetation and slope within 100m in all directions.

Quadrant	Vegetation class Table 2.3 AS3959	Effective Slope (degrees)	Distance under effective slope (m)	Minimum Defendable Space Required for BAL-19 (m)	Exclusions of low threat vegetation under 2.2.3.2 AS3959
Lot 1					
North	Low threat vegetation	0 - 5 ^{o}	0 – 60 m	0 m	LTV
East	Low threat vegetation	flat/upslope	0 – 70 m	0 m	LTV
South	Low threat vegetation	upslope	100 m	0 m	LTV
West	Low threat vegetation	flat/upslope	100 m	0 m	LTV
Existing dwelling					
North	Low threat vegetation	0 - 5 ^{o}	0 – 75 m	0 m	LTV
East	Low threat vegetation	0 - 5 ^{o}	0 – 24 m	0 m	LTV
East	Scrub	0 - 5 ^{o}	24 – 100 m	19 m	N/A
South	Low threat vegetation	flat/upslope	100 m	0 m	LTV
West	Low threat vegetation	flat/upslope	100 m	0 m	LTV

Building area size and location for lot 1 and the existing dwelling on lot 2. All distances are measured from the north-eastern corner of each building area

Building Area (BA)	BA (m^2)	Distance to Northern title boundary (m)	Distance to Eastern title boundary (m)
Lot 1	150	5 m	55 m
Existing dwelling	340 m^2	22 m	18 m

Hazard Management Area

Maintain HMA in a low fuel state. Ground cover vegetation less than 100 mm tall, trees pruned to > 2 m. The hazard management area on lot 1 should be verified by a building surveyor before occupancy. The hazard management area on lot 2 should be verified at the sealing of the titles.

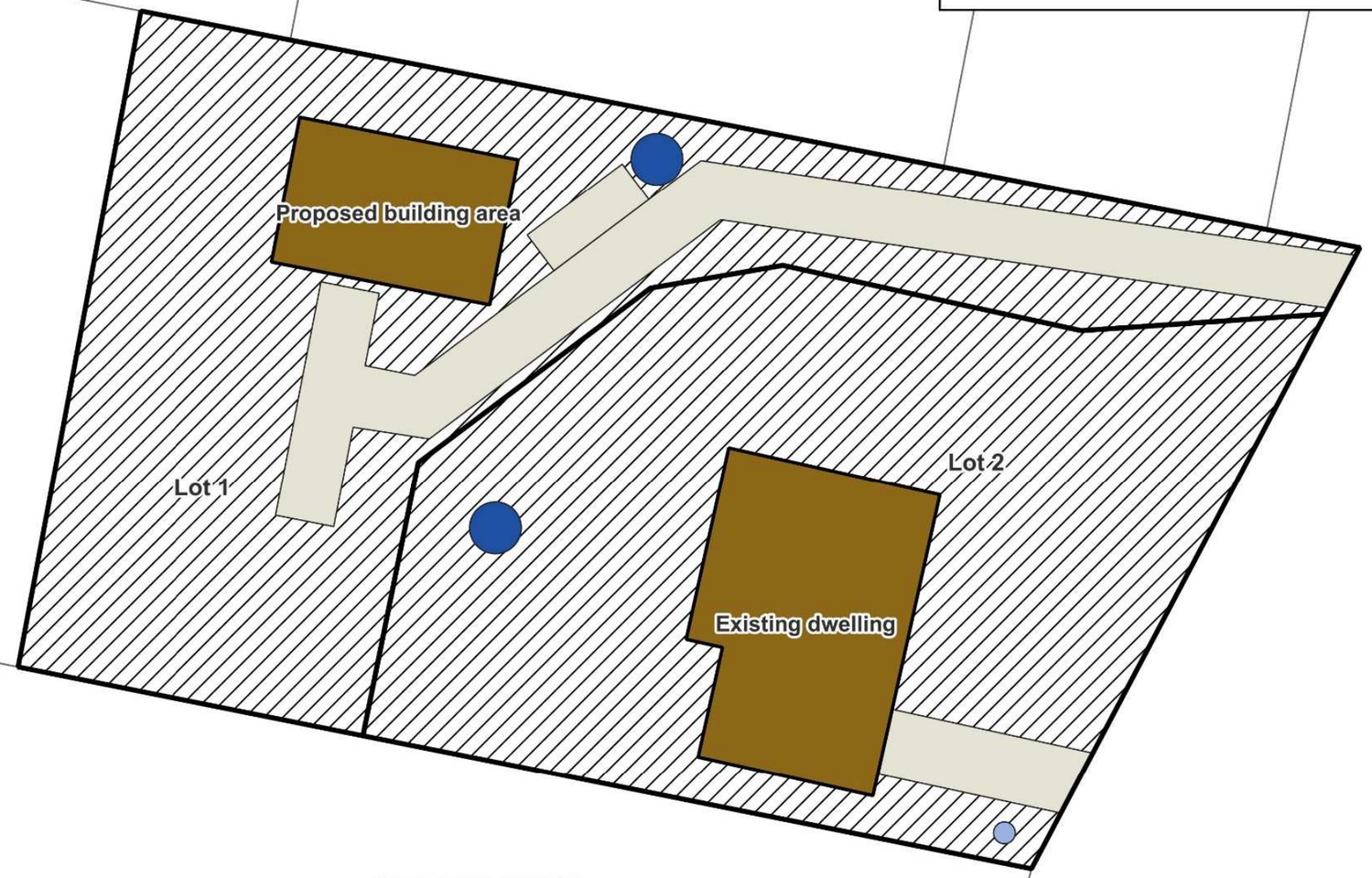
Access

Access to building area including a driveway, hardstand and turning area: in legend "Access" Carriageway must be 4 m wide. Property access to the existing dwelling on lot 2 is 15 m and therefore there are no specific design and /or construction requirements. Property access to lot 1 will be between 30 – 200 m in length and therefore design and construction requirements must comply with table C13.2 (b and d). Including either a driveway encircling the building or a hammerhead T or Y turning head 4 m wide and 8 m long. Access to the building area on lot 1 must be implemented before occupancy and verified by a building surveyor.

Fire Fighting Water Supply

All parts of the building areas will be within 90 m of a static water point as measured by hose lay. Lot 1 will be compliant subject to a dedicated water supply and compliant water offtake. Lot 2 will be compliant subject to dedicated 10,000L water tank to be installed and maintained for the dwelling as well as the installation of a remotely located offtake to the static water supply associated with the access to the property. The water tank must be switched on at all times. All provisions for water supply for both lots must meet the requirements set out in table C13.5 (a – c). The water supply should be implemented lot 1 prior to occupancy and should be verified by a building surveyor. The water supply for lot 2 should be implemented and verified by council at the sealing of titles.

BUSHFIRE HAZARD MANAGEMENT PLAN - BAL 19



Proposed subdivision
(Source: D2045 as of 25/08/2022)
- Building area
- Lot boundary

Hazard management area
- Hazard management area

Proposed infrastructure
- Watertank
- Water offtake
- Access

Accessed by Philip Barker
BFP 147 - 1, 2, 3A, 3B, 3C

Applicants name:
Municipality: Tasman
PID: 7861401
Certificate of title / number: CT 100122/5

Address: 28 Blowhole Rd, Eaglehawk Neck, 7179
Proposal: 2 lots subdivision

To be read in conjunction with 28 Blowhole Road Eaglehawk Neck - Proposed Subdivision Bushfire Report and Hazard Management Plan

North Barker Ecosystem Services
07/09/2022

Base data and imagery from theLIST (www.thelist.tas.gov.au) © State of Tasmania.
Grid: MGA Zone 55 Datum: GDA94, AHD

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GDA

0 5 10 m

northbarker ECOSYSTEM SERVICES

WOF016 07/09/2022 E. Hong

The mapping has been undertaken using a hand held GPS and subjective interpretation. Consequently it should be considered indicative only.

FIGURE 1. BUSHFIRE HAZARD MANAGAMENT PLAN

APPENDIX 2. SPECIFICATIONS FOR ACCESS, WATER SUPPLY AND HAZARD MANAGEMENT AREAS.

C13.6.1 Subdivision: Provision of Hazard management areas

Objective: Subdivision provides for hazard management areas that: (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 Solution	Performance Criteria
A1 (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: (i) shows all lots that are within or partly within a bushfire-prone area, including those developed at each stage of a staged subdivision; (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 that addresses all the individual lots and that is certified by the TFS or accredited person, showing hazard management areas 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 (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.	**P1** 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: (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.

Table C13.1: Standards for Roads

Element		Requirement
A	Roads	Unless the development standards in the zone require a higher standard, the following apply: (a) two-wheel drive, all-weather construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 2m 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 10m; (i) dead-end or cul-de-sac roads are not more than 200m 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 12m outer radius; and (k) carriageways less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with Australian Standard AS1743-2001 Road Signs-Specifications.

Table C13.2 Standards for property access

Element		Requirement
A	Property access length is less than 30m; or access is not required for a fire appliance to access a fire fighting water point.	There are no specified design and construction requirements.
B	Property access length is 30m or greater; or access is required for a fire appliance to a fire fighting water point.	The following design and construction requirements apply to property access: (a) all-weather construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width of 4m; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 0.5m 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 10m; (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 outer radius of 10m; or (ii) a property access encircling the building; or (iii) a hammerhead "T" or "Y" turning head 4m wide and 8m long.
C	Property access length is 200m or greater.	The following design and construction requirements apply to property access: (a) the requirements for B above; and (b) passing bays of 2m additional carriageway width and 20m length provided every 200m.
D	Property access length is greater than 30m, 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 2m additional carriageway width and 20m length must be provided every 100m.

Table C13.4 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 20t, including for bridges and culverts; (c) minimum carriageway width of 4m; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 2m 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 10m; (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 3.6m, 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 outer radius of 10m; or (ii) a hammerhead "T" or "Y" turning head 4m wide and 8m long.
B	Fire trail length is 200m or greater.	The following design and construction requirements apply: (a) the requirements for A above; and (b) passing bays of 2m additional carriageway width and 20m length provided every 200m.

Table C13.5 Static water supply for firefighting

Element		Requirement
A.	Distance between building area to be protected and water supply.	The following requirements apply: (a) the building area to be protected must be located within 90 m of fire fighting water point of a static water supply; and (b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.
B.	Static Water Supplies	A static water supply: (a) may have a remotely located offtake connected to the static water supply; (b) may be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times; (c) must be a minimum of 10,000l per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems; (d) must be metal, concrete or lagged by non-combustible materials if above ground; and (e) if a tank can be located so it is shielded in all directions in compliance with section 3.5 of *Australian Standard AS 3959-2009* *Construction of buildings in bushfire-prone areas*, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by: (i) metal; (ii) non-combustible material; or (iii) fibre cement a minimum of 6mm thickness.
C.	Fittings, pipework, and accessories (including stands and tank supports)	Fittings and pipework associated with a fire fighting water point for a static water supply must: (a) have a minimum nominal internal diameter of 50mm; (b) be fitted with a valve with a minimum nominal internal diameter of 50mm; (c) be metal or lagged by non-combustible materials if above ground; (d) if buried, have a minimum depth of 300mm2*;* (e) provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to firefighting equipment; (f) ensure the coupling is accessible and available for connection at all times; (g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length); (h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and (i) if a remote offtake is installed, ensure the offtake is in a position that is: (i) visible; (ii) accessible to allow connection by firefighting equipment; (iii) at a working height of 450 – 600mm above ground level; and (iv) protected from possible damage, including damage by vehicles.
D.	Signage for static water connections	The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must: (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	A hardstand area for fire appliances must be: (a) no more than 3m from the hydrant, measured as a hose lay; (b) no closer than 6m from the building area to be protected; (c) a minimum width of 3m 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.

APPENDIX 3. PLANNING CERTIFICATE

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE[1] 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:	28 Blowhole Road, Eaglehawk Neck
Certificate of Title / PID:	PID: 7861401 Certificate of title / number: CT: 100122/5

2. Proposed Use or Development

Description of proposed Use and Development:	2 lot subdivision
Applicable Planning Scheme:	Tasmanian Planning Scheme - Tasman

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Drawing D – 2054 - 1	Woolford and Associates	July 2022	1

[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:

☐	**E1.4 / C13.4 – Use or development exempt from this Code**	
	Compliance test	**Compliance Requirement**
☐	E1.4(a) / C13.4.1(a)	Insufficient increase in risk

☐	**E1.5.1 / C13.5.1 – Vulnerable Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.1 P1 / C13.5.1 P1	*Planning authority discretion required. A proposal cannot be certified as compliant with P1.*
☐	E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
☐	E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

☐	**E1.5.2 / C13.5.2 – Hazardous Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.2 P1 / C13.5.2 P1	*Planning authority discretion required. A proposal cannot be certified as compliant with P1.*
☐	E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
☐	E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

☐	**E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.1 P1 / C13.6.1 P1	*Planning authority discretion required. A proposal cannot be certified as compliant with P1.*
☐	E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
☒	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')

☐	E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

☐	**E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.2 P1 / C13.6.2 P1	*Planning authority discretion required. A proposal cannot be certified as compliant with P1.*
☐	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
☒	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

☐	**E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
☐	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
☐	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
☐	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
☒	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
☐	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner

Name:	Philip Barker	**Phone No:**	0438250713
Postal Address:	163 Campbell Street Hobart 7000	**Email Address:**	pbarker@northbarker.com.au
Accreditation No:	BFP – 147	**Scope:**	1,2,3A,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: Philip Barker **Date:** 10/10/2022

Certificate Number: WOF016

(for Practitioner Use only)