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

Break O'Day COUNCIL

Development Applications

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

DA Number	DA 2025 / 00031
Applicant	Jon Pugh Home Design
Proposal	Residential – Construction of Dwelling Additions and Attached Carport including Demolition of Existing Outbuildings
Location	12 Hilltop Drive, Binalong Bay

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

Representations must be submitted in writing to the General Manager, Break O'Day Council, 32 -34 Georges Bay Esplanade, St Helens 7216 or emailed to admin@bodc.tas.gov.au, and referenced with the Application Number in accordance with section 57(5) of the abovementioned Act during the fourteen (14) day advertised period commencing on Saturday 12 April, 2025 **until 5pm Thursday 1 May, 2025**.

John Brown
GENERAL MANAGER

BUILDING DESIGNER:	JONATHAN PUGH
ACCREDITATION NO.:	CC 6894
TITLE REFERENCE:	C.T. 80821/20
DESIGN WIND SPEED:	N3 WIND CLASSIFICATION
SOIL CLASSIFICATION:	SOIL CLASSIFICATION 'M'
CLIMATE ZONE:	7
BUSHFIRE PRONE BAL RATING:	N/A
ALPINE AREA:	N/A
CORROSION ENVIRONMENT:	SEVERE - 200m to BREAKING SURF
FLOODING RISK:	UNKNOWN
LANDSLIP:	NO
DISPERSIVE SOILS:	UNKNOWN
SALINE SOILS:	UNKNOWN
SAND DUNES:	NO
MINE SUBSIDENCE:	NO
LANDFILL:	NO
DATUM LEVEL AT KERB:	UNKNOWN
GROUND LEVEL:	MIN 150mm BELOW F.L.
FINISHED FLOOR LEVEL:	AS PER PLANS / OR 150mm ABOVE G.L.
OVERFLOW RELIEF GULLY LEVEL:	MIN 150mm BELOW F.L.

Development Application

February 2025

Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

for Rich & Sarah Hori

#12 Hilltop Drive,
Binalong Bay, TAS 7216

Building Areas	
Upper Floor Addition	38.20m²
Lower Floor Addition	34.51m²
Carport	21.00m²

Drawing Schedule

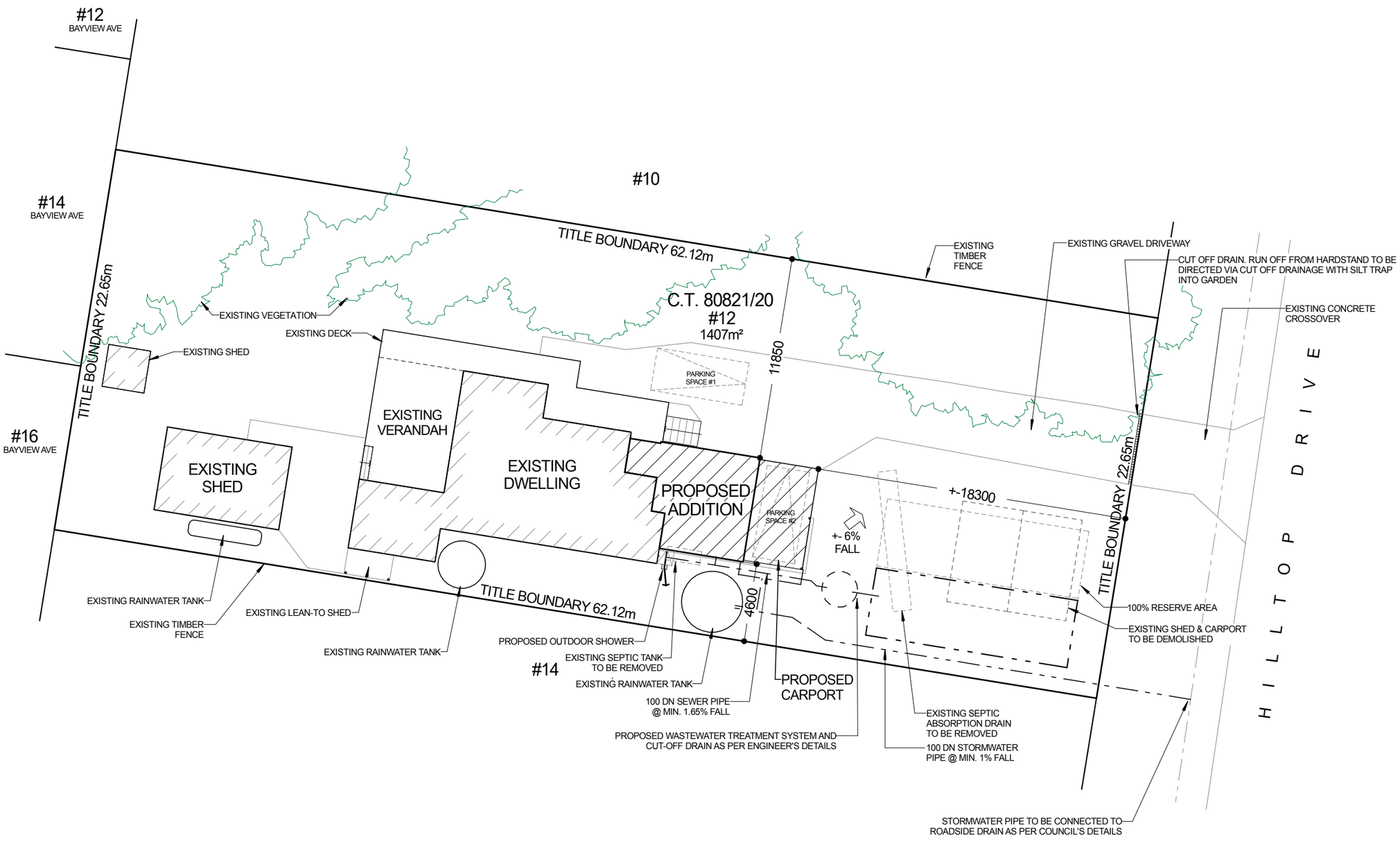
Drg No.	Drawing Name
A01	Proposed Site Plan
A02	Existing Floor Plan
A03	Existing Elevations
A04	Proposed Floor Plan - Lower Level
A05	Proposed Floor Plan - Upper Level
A06	Proposed Elevations

jon pugh home design : accr/no. CC6894
jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

SOIL AND WATER MANAGEMENT

- DOWNPIPES TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS ROOF IS INSTALLED
- INSTALL AG DRAIN PRIOR TO FOOTING EXCAVATION SEE DRAINAGE PLAN FOR LOCATION (IF SHOWN)
- EXCAVATED MATERIAL PLACED UP-SLOPE OF OF AG DRAIN. TO BE REMOVED WHEN BUILDING WORKS ARE COMPLETE AND USED AS FILL ON SITE FOR ANY LOW POINTS. INSTALL A SEDIMENT FENCE ON THE DOWNSLOPE OF MATERIAL
- CONSTRUCTION VEHICLES TO BE PARKED ON THE STREET OR THE DRIVEWAY ONCE PAVED TO PREVENT TRANSFERRING DEBRIC ONTO HILLTOP DRIVE

NORTH



PROPOSED SITE PLAN
1:250 @ A3

jon PUGH home DESIGN

residential building design + documentation
jon pugh home design : accr/no. CC6894
jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

client:
Rich & Sarah Hori

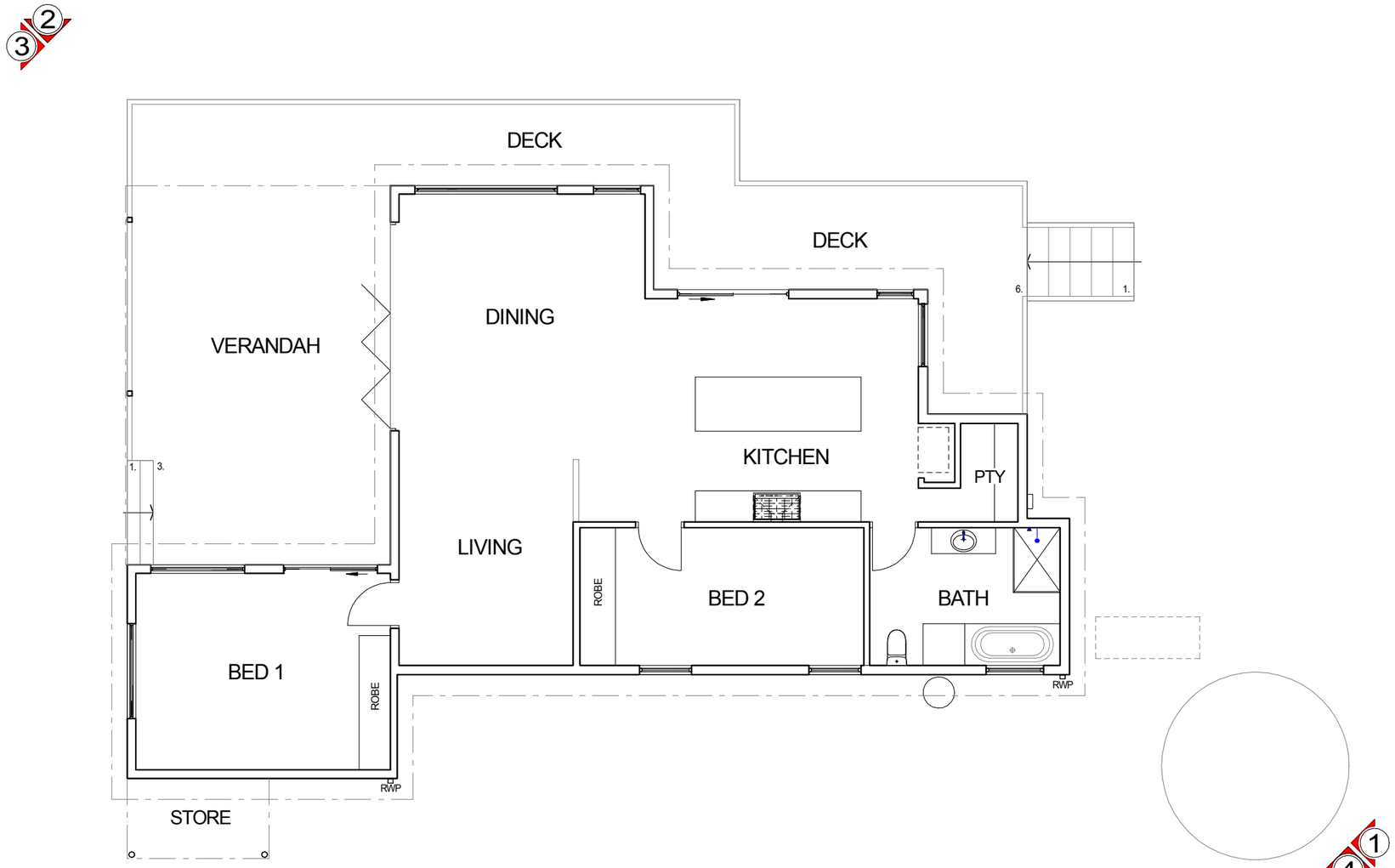
project:
Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

at:
#12 Hilltop Drive,
Binalong Bay, TAS 7216

drawing title:
Proposed Site Plan

REV.	DESCRIPTION	DATE

job. no.	revision
323	-
sheet no.	date
A01	28/02/25



EXISTING FLOOR PLAN
1:100 @ A3

jon PUGH home DESIGN

residential building design + documentation
jon pugh home design : accr/no. CC6894
jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

client:
Rich & Sarah Hori

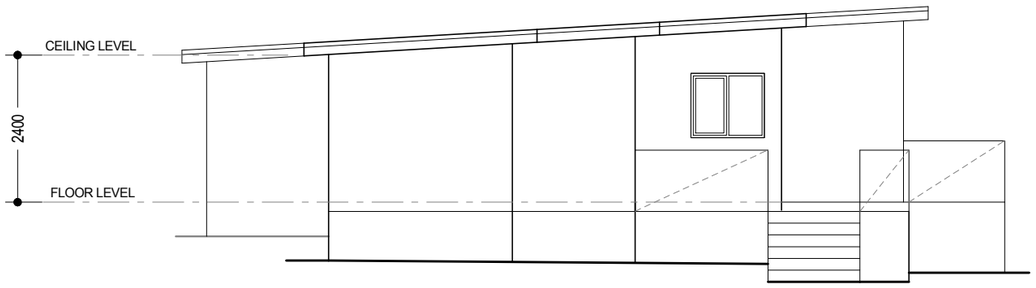
project:
Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

at:
#12 Hilltop Drive,
Binalong Bay, TAS 7216

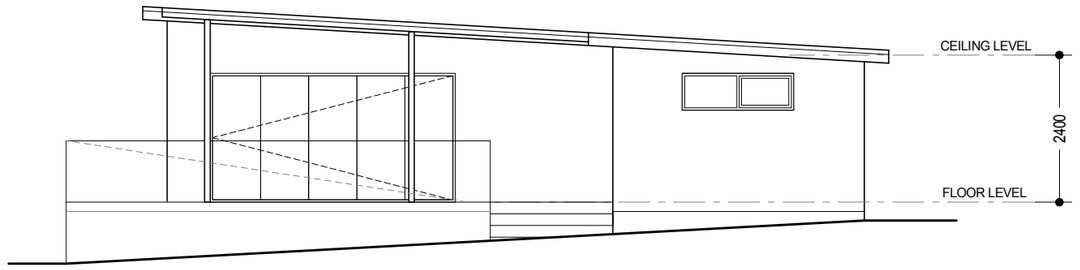
drawing title:
Existing Floor Plan

REV.	DESCRIPTION	DATE

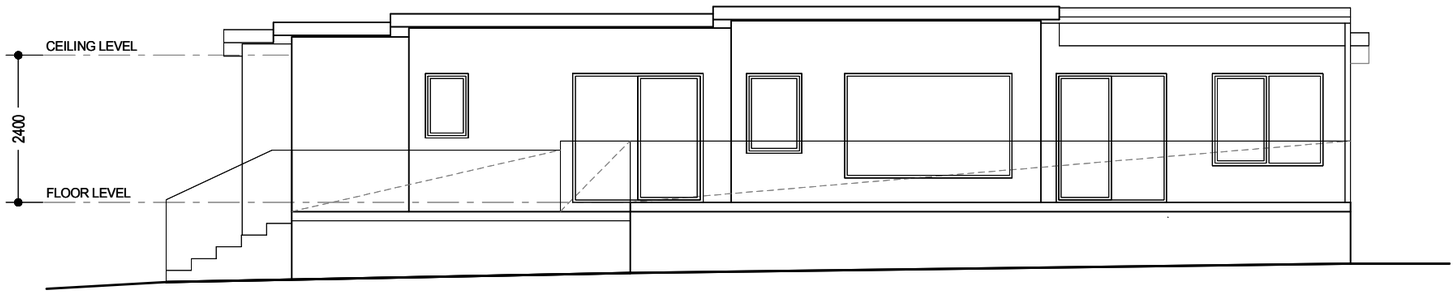
job. no.	revision
323	-
sheet no.	**date**
A02	28/02/25



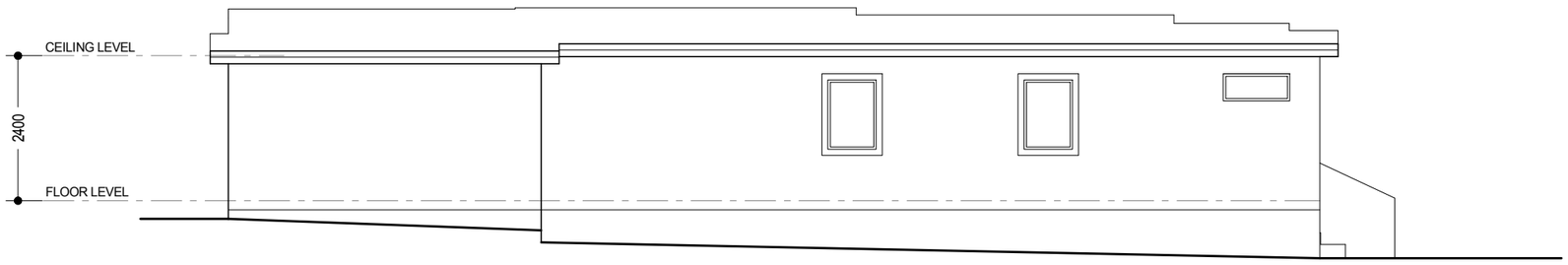
ELEVATION 1
1:100 @ A3



ELEVATION 3
1:100 @ A3



ELEVATION 2
1:100 @ A3



ELEVATION 4
1:100 @ A3

jon PUGH home DESIGN

residential building design + documentation
jon pugh home design : accr/no. CC6894
jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

client:
Rich & Sarah Hori

project:
Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

at:
#12 Hilltop Drive,
Binalong Bay, TAS 7216

drawing title:
Existing Elevations

REV.	DESCRIPTION	DATE

job. no.	revision
323	**-**
sheet no.	date
A03	28/02/25

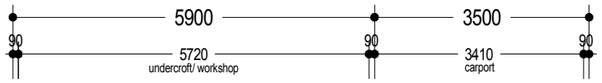
LEGEND

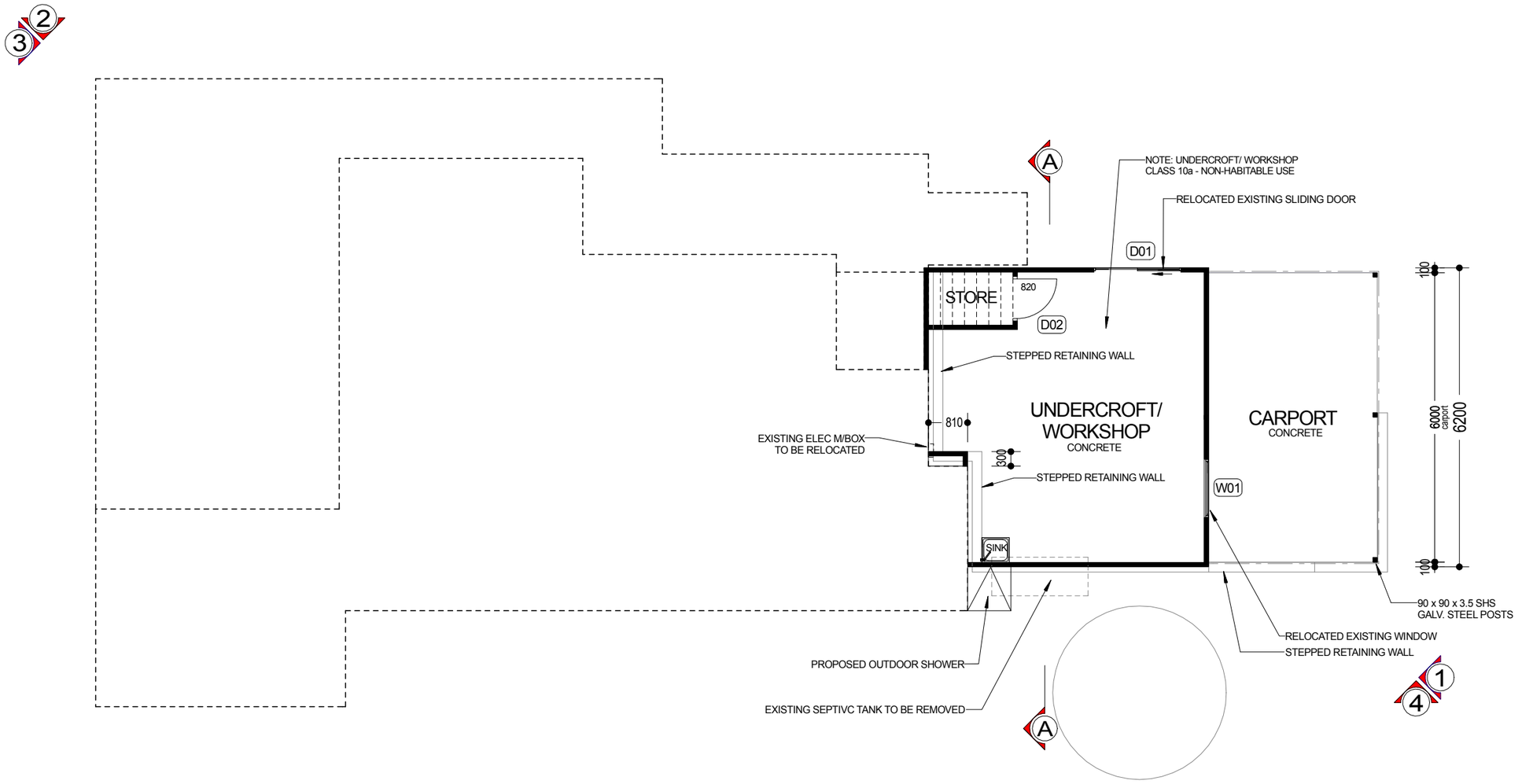
TIMBER FRAME

AREAS:

UNDERCROFT : 34.51m²
CARPORT : 21.00m²

NORTH





PROPOSED FLOOR PLAN - LOWER LEVEL

1:100 @ A3

jon PUGH home DESIGN

residential building design + documentation
jon pugh home design : accr/no. CC6894
jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

client:

Rich & Sarah Hori

project:

Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

at:

#12 Hilltop Drive,
Binalong Bay, TAS 7216

drawing title:

Proposed Floor Plan - Lower Level

REV.	DESCRIPTION	DATE

job. no. **323**

revision **-**

sheet no. **A04**

date 28/02/25

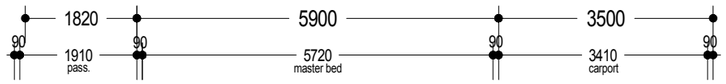
DOOR SCHEDULE & WINDOW SCHEDULE

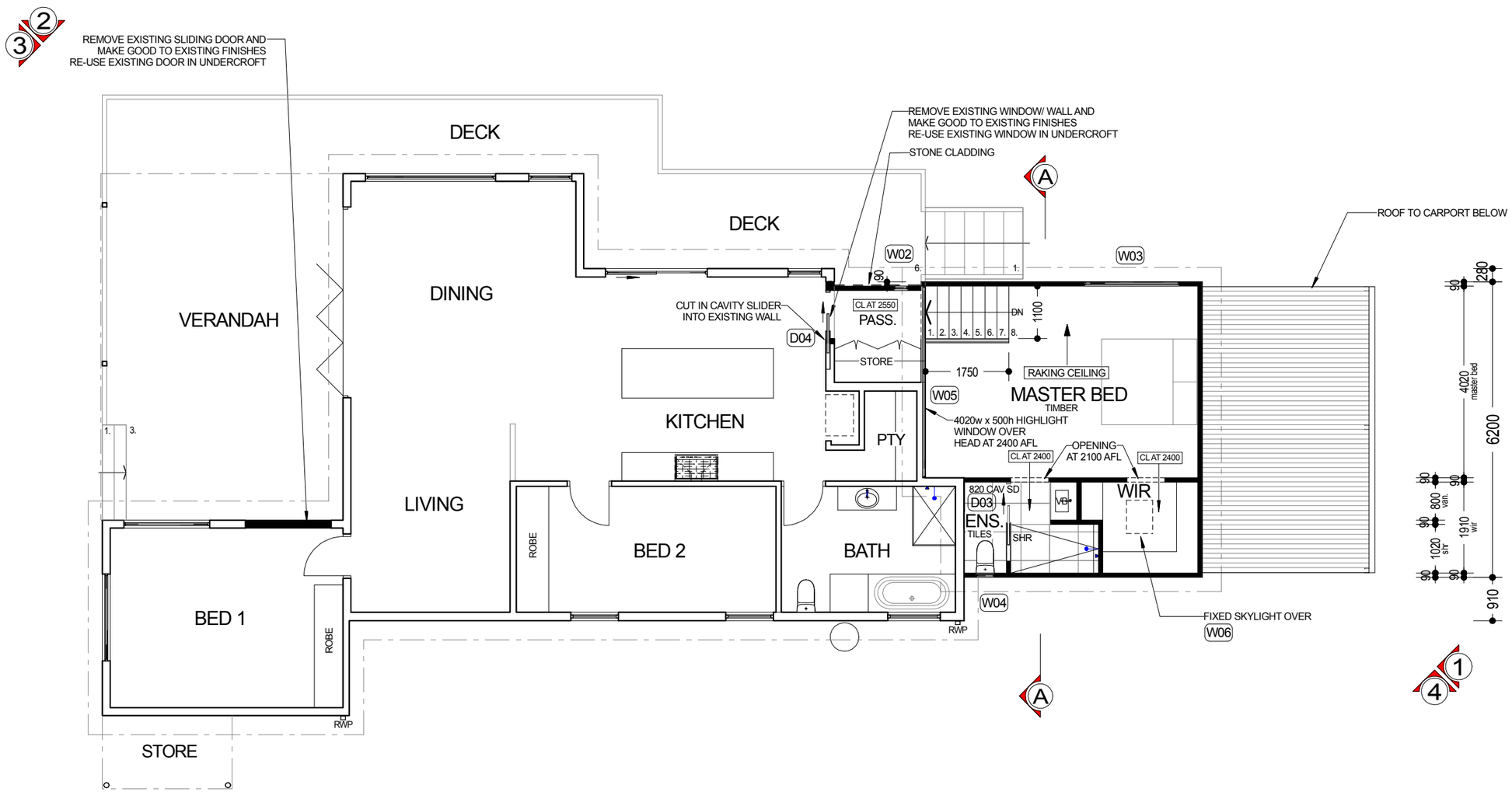
NO.	LOCATION	WIDTH	HEIGHT	TYPE	FRAME	GLAZING
D01	UNDERCROFT/ WORKSHOP	1800	2100	RELOCATED SLIDING DOOR	ALUMINIUM	SINGLE CLEAR
D02	UNDERCROFT/ WORKSHOP	820	2040	INTERNAL FLUSH PANEL	TIMBER	N/A
D03	ENSUITE	820	2040	INTERNAL FLUSH PANEL CAVITY SLIDER	TIMBER	N/A
D04	KITCHEN	820	2040	INTERNAL FLUSH PANEL CAVITY SLIDER	TIMBER	N/A
W01	UNDERCROFT/ WORKSHOP	1200	1050	RELOCATED SLIDER & FIXED LITE	TIMBER	SINGLE CLEAR
W02	PASSAGE	320	1820	FIXED LITE	TIMBER	SINGLE CLEAR
W03	MASTER BED	2000	1500	FIXED LITE	ALUMINIUM	DOUBLE CLEAR
W04	ENSUITE	400	600	AWNING	ALUMINIUM	DOUBLE CLEAR
W05	MASTER BED	4020	500	AWNINGS (x4)	ALUMINIUM	DOUBLE CLEAR
W06	WIR SKYLIGHT	460	870	FIXED SKYLIGHT - VELUX FCM	ALUMINIUM	DOUBLE CLEAR

LEGEND
TIMBER FRAME

AREAS:
MASTER BED ADDITION : 38.20m²
UNDERCROFT : 34.51m²
CARPORT : 21.00m²

NORTH





PROPOSED FLOOR PLAN - UPPER LEVEL
1:100 @ A3

jon PUGH home DESIGN

residential building design + documentation
jon pugh home design : accr/no. CC6894
jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

client:
Rich & Sarah Hori

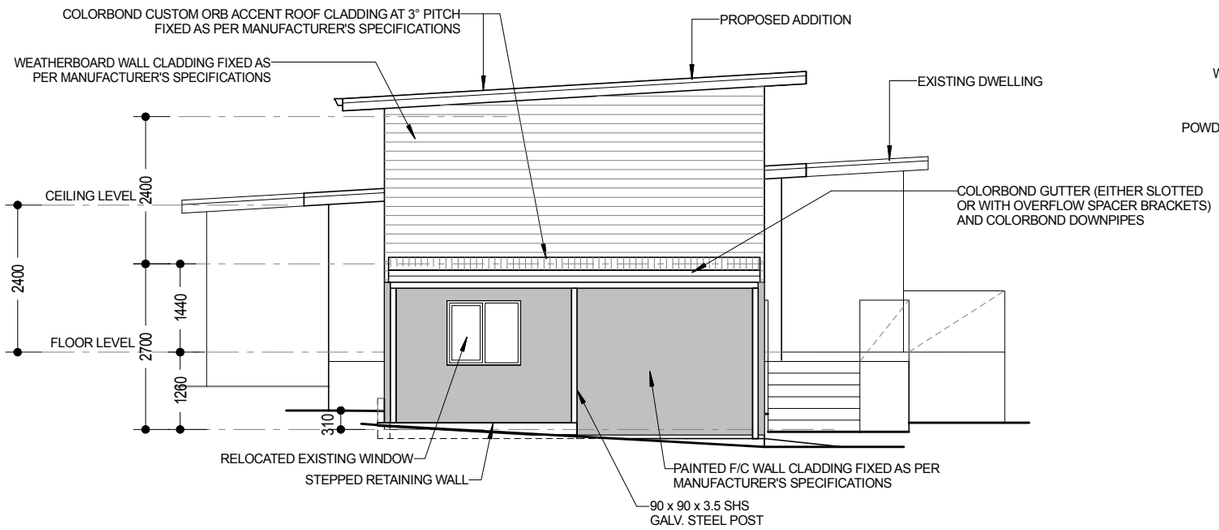
project:
Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

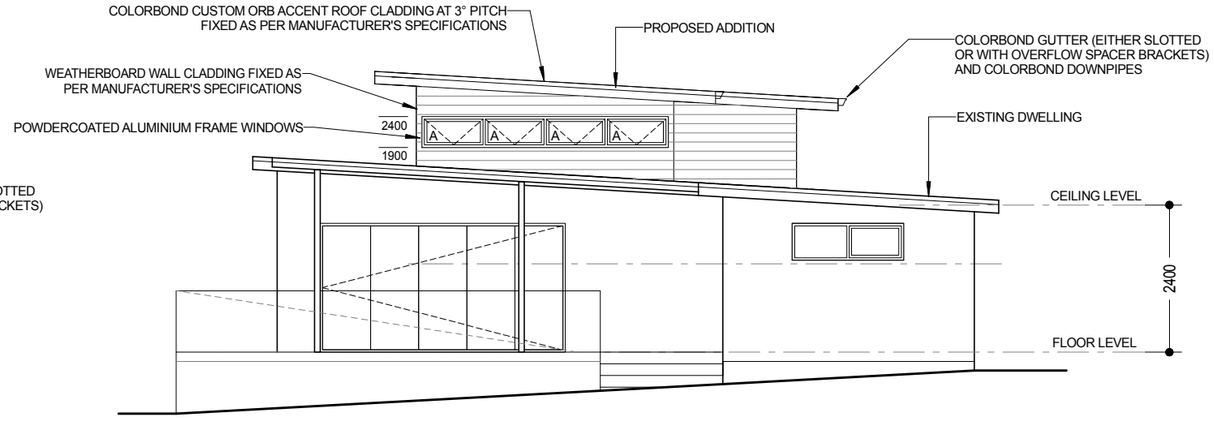
at:
#12 Hilltop Drive,
Binalong Bay, TAS 7216

drawing title:
Proposed Floor Plan - Upper Level

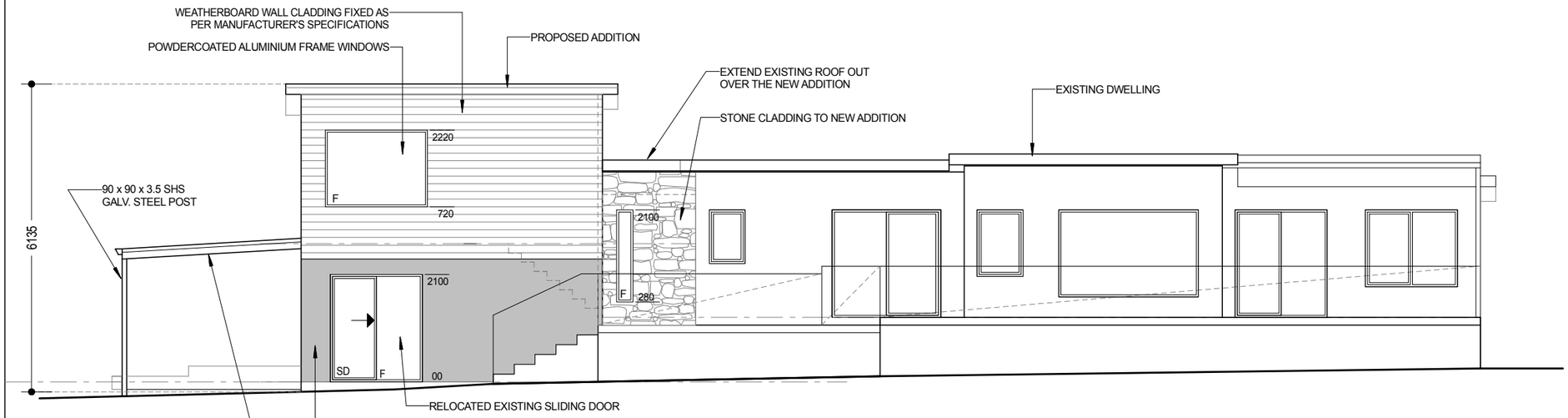
REV.	DESCRIPTION	DATE

job. no. **323**
revision **-**
sheet no. **A05**
date 28/02/25

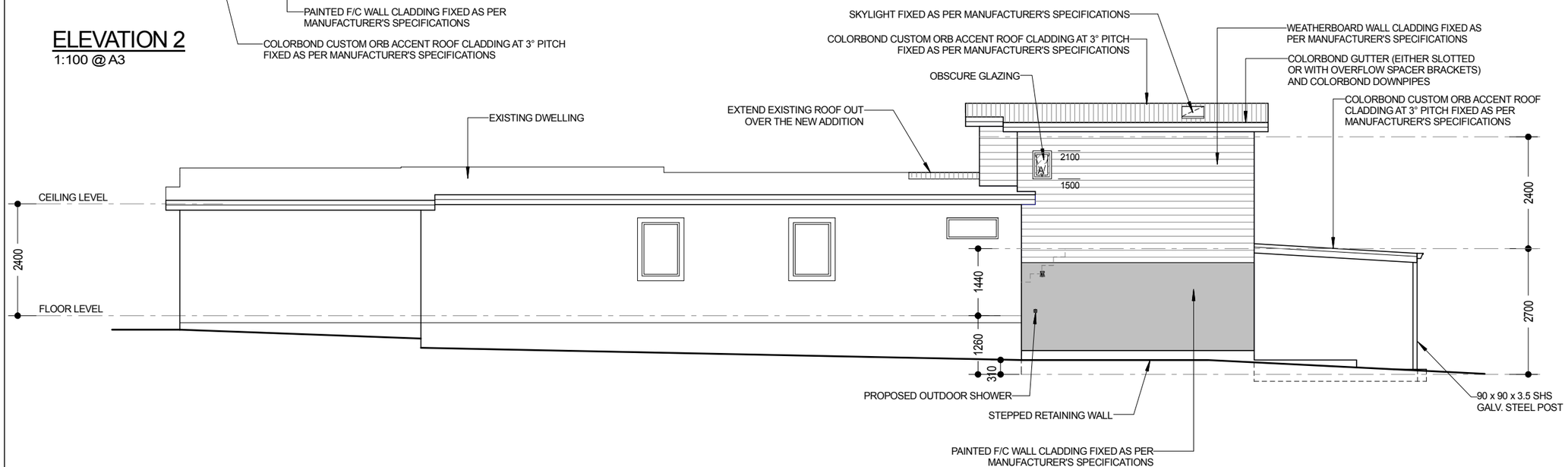




ELEVATION 3
1:100 @ A3



ELEVATION 2
1:100 @ A3



jon PUGH home DESIGN

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jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

client:
Rich & Sarah Hori

project:
Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

at:
#12 Hilltop Drive,
Binalong Bay, TAS 7216

drawing title:
Proposed Elevations

REV.	DESCRIPTION	DATE

job. no.	revision
323	-
sheet no.	date
A06	28/02/25

DEVELOPMENT APPLICATION

COMPLIANCE REPORT
February 2025

OWNER'S DETAILS

Rich & Sarah Hori
12 Hilltop Drive
Binalong Bay
TAS 7216

PROJECT DETAILS

Proposed additions to existing dwelling and demolition of existing shed/ carport at:
12 Hilltop Drive
Binalong Bay
TAS 7216

PREPARED BY
Jon Pugh Home Design
0459 586 013

DEVELOPMENT SITE DETAILS

The property currently has an existing dwelling, shed and shed/ carport on it. There is a very gentle slope running from the southern boundary down to the northern boundary.

PROPOSED DEVELOPMENT

A bedroom extension with a carport is proposed to the existing dwelling on the property. It is proposed to demolish the existing shed/ carport at the front of the property to make way for a new wastewater system.

There is no native vegetation to be removed as part of this application.

Storm water run off from the proposed dwelling additions and carport are to be connected to the existing rainwater tank with overflow to the existing roadside drain on Hilltop Drive.

The proposed development relies on Acceptable solutions and performance solutions from the Tasmanian Planning Scheme to satisfy planning standards.

DEVELOPMENT DETAILS

The proposed development is:

Proposed Upper Floor Addition:	38.20m^2
Proposed Lower Floor Addition:	34.51m^2
Proposed Carport:	21.00m^2
Total Area of Development	**93.71m^2**

PLANNING CODE

The proposed development is in the 'Residential' use category in the LOW DENSITY RESIDENTIAL ZONE and is a 'No Permit Required' use.

The following standards and codes from the Tasmanian Planning Scheme are to be considered:

- **ZONE 10.0 Low Density Residential Zone**
- **CODE C2.0 Parking and Sustainable Transport Code**
- **BRE-S2.0 Stormwater Management Specific Area Plan**

- **CODE C7.0 Natural Assetts Code –** priority vegetation removal not considered in this zone

ZONE 10.0 Low Density Residential Zone

10.3 Use Standards

10.3.1 Discretionery Uses

A1 Not applicable
The proposed is a development not for a discretionary use.

A2 Not applicable
The proposed is a development not for a discretionary use.

A3 Not applicable
The proposed is a development not for a discretionary use.

A4 Not applicable
The proposed is a development not for a discretionary use.

10.3.2 Visitor Accommodation

A1 Not applicable
The proposed is a development not for visitor accommodation use.

A2 Not applicable
The proposed is a development not for visitor accommodation use.

10.4 Development Standards for Dwellings

10.4.1 Residential Density for Multiple Dwellings

A1 Not applicable
The proposed development is not a multiple dwelling.

10.4.2 Building Height

A1 Acceptable solution
The proposed development is 6.14m high.

10.4.3 Setback

A1 Acceptable solution
The proposed development is setback 8m from both of the frontages.

P2 Performance Criteria

a) The proposed addition to the dwelling and carport are setback 4.6m from the side boundary and this is less than the acceptable solution of this planning scheme. The proposed additions are setback well back from the road frontage.
b) The proposed addition to the dwelling and carport are designed to suit the size, shape and orientation of the site. The proposed development

is placed in the existing space in front of the dwelling which is set well back from the road frontage.

c) The proposed additions to the existing dwelling and carport are setback in a similar manner to many of the surrounding buildings.
d) The height, bulk and form of existing and proposed buildings is in keeping with the surrounding buildings in the local area.
e) The existing dwelling has an adequate private open space located on the north/ west side of the property and it is not compromised by this proposed development.
f) There will be no negative impact on the private open space and windows of habitable windows on adjoining properties due to their location in relation to the proposed development. The property to the south is vacant and will not be affected by this proposed development.
g) The proposed development is in keeping with the character of established properties in the area.

10.4.4 Site Coverage

A1 Acceptable Solution
The proposed development has a site coverage of 18.6%.

10.4.5 Frontage Fences for all dwellings

A1 Acceptable solution
No new fences are proposed in this application.

10.5 Development Standards for Non-dwellings

A1 Not applicable
The proposed is a development is not a non-dwelling.

A2 Not applicable
The proposed is a development not for a non-dwelling.

A3 Not applicable
The proposed is a development not for a non-dwelling.

A4 Not applicable
The proposed is a development not for a non-dwelling.

A5 Not applicable
The proposed is a development not for a non-dwelling.

A6 Not applicable
The proposed is a development not for a non-dwelling.

A7 Not applicable
The proposed is a development not for a non-dwelling.

10.6 Development Standards for Subdivision

A1 Not applicable
The proposed is a development not a subdivision.

A2 Not applicable
The proposed is a development not a subdivision.

A3 Not applicable
The proposed is a development not a subdivision.

10.6.2 Roads

A1 Not applicable
The proposed is a development not a subdivision.

10.6.3 Services

A1 Not applicable
The proposed is a development not a subdivision.

A2 Not applicable
The proposed is a development not a subdivision.

A3 Not applicable
The proposed is a development not a subdivision.

CODE C2.0 Parking and Sustainable Transport Code

C2.5 Use Standards

C2.5.1 Car Parking Numbers

A1 Acceptable solution
2 car parking spaces are provided in the proposed Carport and on the driveway as per Table C2.1.

C2.5.2 Bicycle Parking Numbers

A1 Acceptable solution
No bicycle parking spaces are required or provided as per Table C2.1.

C2.5.3 Motorcycle Parking Numbers

A1 Acceptable solution
No motorcycle parking spaces are required or provided as per Table C2.4.

C2.5.4 Loading Bays

A1 Acceptable solution
No loading bays are required or provided.

C2.5.5 Number of Car parking Spaces within the General Residential Zone

A1 Acceptable solution
There are no non-residential buildings in this proposal.

C2.6 Development Standards for Buildings and Works

C2.6.1 Construction of Parking Areas

P1 Performance Solution
(a) The land is almost level/ flat and there will be very little water run off.
(b) Any run off will drain onto to the existing garden areas or onto the roadside drain at the front of the property.
(c) The land is almost level/ flat and there will be very little water run off.
(d) Any run off will drain onto to the existing garden areas or onto the

roadside drain at the front of the property.

(e) The land is almost level/ flat and there will be very little water run off. Any run off will drain onto to the existing garden areas or onto the roadside drain at the front of the property. There will be no sediment transfer onto the road.

(f) The compacted gravel area will be too small to generate a significant amount of dust.

C2.6.2 Design and layout of Parking Areas

A1.1 The layout of car spaces and access ways must be designed in accordance with AS 2890.1 - Parking facilities. Parts 1-6: Off Road Car Parking.

- Minimum parking bay size 2.4m x 5.4m
- Minimum driveway width 3.0m
- Maximum gradient 1:4
- Minimum height clearance 2200mm
- Maximum gradient across property line and footpath 1:20

A1.2 Parking spaces provided for use by persons with a disability

Not applicable

C2.6.3 Number of Accesses for Vehicles

A1 Acceptable solution
Only one access is proposed in this proposal.

A2 Not Applicable
This proposal is in the Low Density Residential Zone.

C2.6.4 Lighting of Parking Areas within the General Business Zone and Central Business Zone

A1 Not Applicable
This proposal is in the Low Density Residential Zone.

C2.6.5 Pedestrian Access

A1.1 Not Applicable
The use in this proposal does not require more than 10 parking spaces.

A1.2 Not Applicable
The use in this proposal does not require disabled access parking.

C2.6.6 Loading Bays

A1 Not Applicable
Loading Bays are not required.

A2 Not Applicable
Loading Bays are not required.

C2.6.7 Bicycle Parking and Storage facilities within the General Business Zone and Central Business Zone

A1 Not Applicable
The use in this proposal does not require bicycle parking spaces.

A2 Not Applicable
The use in this proposal does not require bicycle parking spaces..

C2.6.8 Siting of Parking and Turning Areas

A1 Not Applicable
The use in this proposal does not require any specific provisions.

A2 Not Applicable
The use in this proposal does not require any specific provisions.

C2.7 Parking Precinct Plan

C2.7.1 Parking Precinct Plan

A1 Not Applicable
The use in this proposal does not require any specific provisions.

BRE-S2.0 Stormwater Management Specific Area Plan

BRE-S2.0 Development Standards for Buildings and Works

BRE-2.7.1 Stormwater Management

A1 Acceptable solution
Storm water run off from the proposed dwelling additions and carport are to be connected to the existing rainwater tank with overflow to the existing roadside drain on Hilltop Drive.

GEO-ENVIRONMENTAL ASSESSMENT

12 Hilltop Drive

Binalong Bay

January 2025

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	Rich & Sarah Hori
Site Address:	12 Hilltop Drive, Binalong Bay
Date of Inspection:	09/12/2024
Proposed Works:	Additions & alterations
Investigation Method:	70mm hand auger
Inspected by:	JP Cumming

Site Details

Certificate of Title (CT):	80821/20
Title Area:	Approx. 1415 m^2
Applicable Planning Overlays:	Priority Vegetation Area
Slope & Aspect:	Gentle 6% NE facing slope
Vegetation:	Mixed flora

Background Information

Geology Map:	MRT 250 000
Geological Unit:	Devonian granite
Climate:	Annual rainfall approx. 700mm
Water Connection:	Tank
Sewer Connection:	Unserviced-On-site required
Testing and Classification:	AS1547:2012, AS2870:2011, AS1726:2017 & AS4055:2021

Investigation

A number of test holes were completed to identify the distribution of, and variation in soil materials on the site. Representative test holes at the approximate locations indicated on the attached site plan were chosen for testing and classification according to AS2870-2011 & AS1547-2012. See soil profile conditions presented below.

Engineering Profile Summary

Hole 1 Depth (m)	USCS	Description
0.00 – 0.30	SW	**Gravelly SAND**: grey, moist, medium dense
0.30 – 0.70	CI	**Silty CLAY**: yellow brown, grey, medium plasticity, moist, stiff
0.70 – 1.4+	SC	**Clayey SAND**: yellow brown, grey, slightly moist, very dense, end of hole.

Wastewater Profile Summary

Hole 2 Depth (m)	Horizon	Description
0.00 – 0.30	A1	Grey **Gravelly SAND (SW)**: moist medium dense consistency, gradual boundary to
0.30 – 0.70	B2	Yellow Brown and Grey **Silty CLAY (CI)**: moderately developed structure, moist stiff consistency, gradual boundary to
0.70 – 1.4+	BC	Yellow Brown and Grey **Clayey SAND (SC)**: slightly moist very dense consistency, end of hole.

Site Notes

Soils on the site are developing from Devonian granite, the clay fraction is likely to show moderate ground surface movement with moisture fluctuations. The profile has moderate capacity to accept onsite wastewater disposal.

Site Classification

The site has been assessed and classified in accordance with AS2870:2011 *"Residential Slabs and Footings".*

The site has been classified as:

Class M

Y_s range: **20-40mm**

Notes: that is a moderately reactive clay.

Wind Loading Classification

According to *"AS4055:2021 - Wind Loads for Housing"* the house site is classified below:

Wind Classification: N3

Region:	A
Terrain Category:	1.0
Shielding Classification:	FS
Topographic Classification:	T2
Wind Classification:	N3
Design Wind Gust Speed – m/s ($V_{h,u}$):	50

Wastewater Classification & Recommendations

According to AS1547-2012 for on-site wastewater management the soil on the property is classified as **Clay LOAM (Category 4)**. The site contains an existing two-bedroom dwelling and a one-bedroom ancillary. Under the current proposal there will be an addition built onto the primary dwelling which will add a third bedroom. The dwelling and ancillary are currently serviced by a primary treatment system with onsite absorption, this system is insufficient to continue servicing the site under the proposed development. Due to the limited area on site, it is recommended that a package treatment system (e.g. AWTS) is installed. A Design Loading Rate (DLR) of 15L/m^2/day has been assigned for secondary treated effluent. The existing system should be disconnected and decommissioned from use.

Under the current proposal, the site will have a calculated maximum daily loading of 840L/day. This is based on a tank water supply (120L/person/day) and a maximum occupancy of 5 people in the primary dwelling and 2 people in the ancillary dwelling. Using a DLR of 15L/m^2/day, an absorption area of at least 56m^2 is required. This can be accommodated by one 12m x 4.6m x 0.6m modified absorption bed as per the attached design.

A cut-off drain will not be required due to the gentle relief of the site. The area must be excluded from traffic or any future building works. A 100% reserve area should be set aside for future wastewater requirements and the area kept free from development. For further detail please refer to the attached plan and Trench summary reports.

The following setback distances are required to comply with Building Act 2016:

Upslope and level buildings:	3m
Downslope buildings:	2.75m
Upslope or level boundaries:	1.5m
Downslope boundary:	2m
Downslope surface water:	21m

Compliance with Building Act 2016 Guidelines for On-site Wastewater Management Systems is outlined in the attached table and associated risk assessment.

Construction Notes & Recommendations

The site has been classified as **Class M** – that is a moderately reactive clay site, which may experience moderate ground movement from moisture changes.

All earthworks on site must comply with AS3798:2012, and I further recommend that consideration be given to drainage and sediment control on site during and after construction. Care should also be taken to ensure there is adequate drainage in the construction area to avoid the potential for weak bearing and foundation settlement associated with excessive soil moisture.

I also recommend that during construction that I and/or the design engineer be notified of any major variation to the soil conditions or wastewater loading as outlined in this report.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD

Director

Disclaimer

This Report has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and the Client. To the best of GES's knowledge, the information presented herein represents the client's requirements at the time of printing of the Report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from that discussed in this Report. In preparing this Report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations referenced herein. Except as otherwise stated in this Report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible geotechnical parameter or the soil conditions over the whole area of the site. Soil and rock samples collected from the investigation area are assumed to be representative of the areas from where they were collected and not indicative of the entire site. The conclusions discussed within this report are based on observations and/or testing at these investigation points.

This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required.

No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third a party.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Assessment Report

Site assessment for on-site waste water disposal

Assessment for	Rich & Sarah Hori	Assess. Date	13-Jan-25
		Ref. No.	
Assessed site(s)	12 Hilltop Drive, Binalong Bay	Site(s) inspected	9-Dec-24
Local authority	Break O'Day Council	Assessed by	JP Cumming

This report summarises wastewater volumes, climatic inputs for the site, soil characteristics and sustem sizing and design issues. Site Capability and Environmental sensitivity issues are reported separately, where 'Alert' columns flag factors with high (A) or very high (AA) limitations which probably require special consideration for system design(s). Blank spaces on this page indicate data have not been entered into TRENCH.

Wastewater Characteristics

Wastewater volume (L/day) used for this assessment = 840 (using a method independent of the no. of bedrooms)
Septic tank wastewater volume (L/day) = 280
Sullage volume (L/day) = 560
Total nitrogen (kg/year) generated by wastewater = 2.6
Total phosphorus (kg/year) generated by wastewater = 2.0

Climatic assumptions for site (Evapotranspiration calculated using the crop factor method)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	51	46	56	55	46	49	68	67	70	68	64	62
Adopted rainfall (R, mm)	51	46	56	55	46	49	68	67	70	68	64	62
Retained rain (Rr, mm)	46	41	50	50	41	44	61	60	63	61	58	56
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	**84**	**69**	**41**	**14**	**1**	**-15**	**-30**	**-18**	**0**	**23**	**47**	**70**

Annual evapotranspiration less retained rain (mm) = 285

Soil characterisitics

Texture = Clay LOAM Category = 4 Thick. (m) = 1.4
Adopted permeability (m/day) = 0.78 Adopted LTAR (L/sq m/day) = 15 Min depth (m) to water = 2

Proposed disposal and treatment methods

Proportion of wastewater to be retained on site:	All wastewater will be disposed of on the site
The preferred method of on-site primary treatment:	In a package treatment plant
The preferred method of on-site secondary treatment:	In-ground
The preferred type of in-ground secondary treatment:	Evapotranspiration bed(s)
The preferred type of above-ground secondary treatment:	None
Site modifications or specific designs:	Not needed

Suggested dimensions for on-site secondary treatment system

Total length (m) =	12
Width (m) =	4.6
Depth (m) =	0.6
Total disposal area (sq m) required =	110
comprising a Primary Area (sq m) of:	56
and a Secondary (backup) Area (sq m) of:	56

Sufficient area is available on site

Comments:
Using the DLR of 15L/m^2/day, an absorption area of 56m^2 is required. Therefore the system should cope with predicted climatic and loading events.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Site Capability Report

Site assessment for on-site waste water disposal

Assessment for	Rich & Sarah Hori	Assess. Date	13-Jan-25
		Ref. No.	
Assessed site(s)	12 Hilltop Drive, Binalong Bay	Site(s) inspected	9-Dec-24
Local authority	Break O'Day Council	Assessed by	JP Cumming

This report summarises data relating to the physical capability of the assessed site(s) to accept wastewater. Environmental sensitivity and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) site limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
AA	Expected design area	sq m	200	V. high	Very high		
	Density of disposal systems	/sq km	5	Mod.	Very low		
	Slope angle	degrees	3	High	Very low		
	Slope form	Straight simple		High	Low		
	Surface drainage	Mod. good		High	Low		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		High	Moderate		
	Aspect (Southern hemi.)	Faces NE or NW		V. high	Low		
	Frequency of strong winds	Common		High	Low		
	Wastewater volume	L/day	840	High	Moderate		
	SAR of septic tank effluent		1.7	High	Low		
	SAR of sullage		2.6	High	Moderate		
	Soil thickness	m	1.4	V. high	Very low		
	Depth to bedrock	m	1.4	V. high	Moderate		
	Surface rock outcrop	%	0	V. high	Very low		
	Cobbles in soil	%	0	V. high	Very low		
	Soil pH		5.5	High	Low		
	Soil bulk density	gm/cub. cm	1.4	High	Very low		
	Soil dispersion	Emerson No.	8	V. high	Very low		
	Adopted permeability	m/day	0.78	Mod.	Low		
	Long Term Accept. Rate	L/day/sq m	15	High	Very low		

Comments

The site has the capability to accept onsite disposal of secondary treated wastewater.

GES P/L

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Environmental Sensitivity Report

Site assessment for on-site waste water disposal

Assessment for	Rich & Sarah Hori	Assess. Date	13-Jan-25
		Ref. No.	
Assessed site(s)	12 Hilltop Drive, Binalong Bay	Site(s) inspected	9-Dec-24
Local authority	Break O'Day Council	Assessed by	JP Cumming

This report summarises data relating to the environmental sensitivity of the assessed site(s) in relation to applied wastewater. Physical capability and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
A	Cation exchange capacity	mmol/100g	50	High	High		
A	Phos. adsorp. capacity	kg/cub m	0.4	High	High		
	Annual rainfall excess	mm	-285	High	Very low		
	Min. depth to water table	m	2	High	Low		
	Annual nutrient load	kg	4.6	High	Very low		
	G'water environ. value	Agric sensit/dom irrig		V. high	Moderate		
	Min. separation dist. required	m	2	High	Very low		
	Risk to adjacent bores	Very low		V. high	Very low		
A	Surf. water env. value	Recreational		V. high	High		
	Dist. to nearest surface water	m	200	V. high	Moderate		
AA	Dist. to nearest other feature	m	2	V. high	Very high		
	Risk of slope instability	Very low		V. high	Very low		
	Distance to landslip	m	500	V. high	Very low		

Comments

There is acceptably low risk of environmental degredation associated with wastewater disposal on this site. Planting out of the absorption area with appropriate species is recommended to encourage nutrient uptake.

Demonstration of wastewater system compliance to *Building Act 2016 Guidelines for On-site Wastewater*

Acceptable Solutions	**Performance Criteria**	**Compliance**
A1 Horizontal separation distance from a building to a land application area must comply with one of the following: a) be no less than 6m; or b) be no less than: (i) 3m from an upslope building 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 a) The land application area is located so that (i) the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.; and (ii) is setback a sufficient distance from a downslope excavation around or under a building to prevent inadequately treated wastewater seeping out of that excavation	Complies with A1 (b) (i) Land application area will be located with a minimum separation distance of 3m from an upslope or level building. Complies with A1 (b) (iii) Land application area will be located with a minimum separation distance of 2.75m of downslope building.
A2 Horizontal separation distance from downslope surface water to a land application area 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 land application area 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 (b) (ii) Land application area will be located with a minimum separation distance of 21m of downslope surface water.

A3 Horizontal separation distance from a property boundary to a land application area 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; and (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 land application area 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 P3 Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary and 2m from a downslope property boundary. See attached risk assessment.
A4 Horizontal separation distance from a downslope bore, well or similar water supply to a land application area 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 land application area 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	No bore or well identified within 50m

A5 Vertical separation distance between groundwater and a land application area 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 land application area 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	No groundwater encountered.
A6 Vertical separation distance between a limiting layer and a land application area 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.	No limiting layer identified.
A7 nil	P7 A wastewater treatment unit must be located a sufficient distance from buildings or neighbouring properties so that emissions (odour, noise or aerosols) from the unit do not create an environmental nuisance to the residents of those properties	Complies

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AS1547:2012 – Loading Certificate – AWTS Design

This loading certificate sets out the design criteria and the limitations associated with use of the system.

Site Address: 12 Hilltop Drive, Binalong Bay

System Capacity: 7 persons @ 120L/person/day

Summary of Design Criteria

DLR: 15L/m^2/day

Absorption area: 56m^2

Reserve area location /use: Assigned

Water saving features fitted: Standard fixtures

Allowable variation from design flows: 1 event @ 200% daily loading per quarter

Typical loading change consequences: Expected to be minimal due to use of AWTS and large land area

Overloading consequences: Continued overloading may cause hydraulic failure of the absorption area and require upgrading/extension of the area. Risk considered acceptable due to monitoring through quarterly maintenance reports.

Underloading consequences: Lower than expected flows will have minimal consequences on system operation unless the house has long periods of non occupation. Under such circumstances additional maintenance of the system may be required. Long term under loading of the system may also result in vegetation die off in the absorption area and additional watering may be required. Risk considered acceptable due to monitoring through quarterly maintenance reports.

Lack of maintenance / monitoring consequences: Issues of underloading/overloading and condition of the irrigation area require monitoring and maintenance, if not completed system failure may result in unacceptable health and environmental risks. Monitoring and regulation by the permit authority required to ensure compliance.

Other considerations: Owners/occupiers must be made aware of the operational requirements and limitations of the system by the installer/maintenance contractor.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Rich & Sarah Hori *Owner name*
12 Hilltop Drive *Address*
Binalong Bay 7216 *Suburb/postcode*

Designer details:

Name: John-Paul Cumming
Category: Bld. Srvcs. Dsgnr. - Hydraulic
Business name: Geo-Environmental Solutions
Phone No: 03 6223 1839
Business address: 29 Kirksway Place
Battery Point 7004
Fax No: N/A
Licence No: CC774A
Email address: office@geosolutions.net.au

Details of the proposed work:

Owner/Applicant Rich & Sarah Hori
Designer's project reference No. J11191
Address: 12 Hilltop Drive
Lot No: 80821/20
Binalong Bay 7216

Type of work: Building work ☐ Plumbing work ☒ *(X all applicable)*

Description of work:
On-site wastewater management system - design

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

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

Certificate Type:	Certificate	Responsible Practitioner
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☐ Civil design	Civil Engineer or Civil Designer
	☒ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	☐ Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☒ Performance Solution: ☐ *(X the appropriate box)*

Other details:

Existing system to be disconnected and decommissioned from use. AWTS with modified absorption bed to be installed.

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Jan-25
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Jan-25
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Jan-25

Standards, codes or guidelines relied on in design process:

AS1547:2012 On-site domestic wastewater management.

AS3500 (Parts 0-5)-2013 Plumbing and drainage set.

Any other relevant documentation:

Geo-Environmental Assessment - 12 Hilltop Drive, Binalong Bay - Jan-25

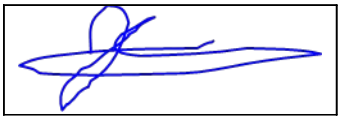
Geo-Environmental Assessment - 12 Hilltop Drive, Binalong Bay - Jan-25

Attribution as designer:

I John-Paul Cumming, 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:	John-Paul Cumming		13/01/2025
Licence No:	CC774A		

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.

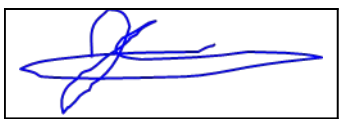
I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- [x] The works will not increase the demand for water supplied by TasWater
- [x] 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
- [x] The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- [x] The works will not damage or interfere with TasWater's works
- [x] The works will not adversely affect TasWater's operations
- [x] The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- [x] I have checked the LISTMap to confirm the location of TasWater infrastructure
- [x] 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 ..... John-Paul Cumming..... 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

	Name: (print)	*Signed*	*Date*
Designer:	John-Paul Cumming		13/01/2025

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Rich & Sarah Hori *Owner /Agent*

12 Hilltop Drive *Address*

Binalong Bay 7216 *Suburb/postcode*

Qualified person details:

Qualified person: John-Paul Cumming

Address: 29 Kirksway Place

Battery Point 7004

Phone No: 03 6223 1839

Fax No:

Licence No: AO999

Email address: jcumming@geosolutions.net.au

Qualifications and Insurance details: Certified Professional Soil Scientist (CPSS stage 2)

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

Speciality area of expertise: AS2870-2011 Foundation Classification

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

Details of work:

Address: 12 Hilltop Drive

Binalong Bay 7216

Lot No:

Certificate of title No: 80821/20

The assessable item related to this certificate: Classification of foundation Conditions according to AS2870-2011

(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: Foundation Classification

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

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

building work, plumbing work or plumbing installation or demolition work ☒

or

a building, temporary structure or plumbing installation: ☐

In issuing this certificate the following matters are relevant –

Documents:	The attached soil report for the address detailed above in 'details of work'
Relevant calculations:	Reference the above report.
References:	AS2870:2011 residential slabs and footings AS1726:2017 Geotechnical site investigations CSIRO Building technology file – 18.

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

Site Classification consistent with AS2870-2011.

Scope and/or Limitations

The classification applies to the site as inspected and does not account for future alteration to foundation conditions as a result of earth works, drainage condition changes or variations in site maintenance.

I, John-Paul Cumming certify the matters described in this certificate.

Qualified person:

Signed:

Certificate No: J11191

Date: 13/01/2025

SOIL AND WATER MANAGEMENT

- DOWNPIPES TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS ROOF IS INSTALLED
- INSTALL AG DRAIN PRIOR TO FOOTING EXCAVATION SEE DRAINAGE PLAN FOR LOCATION (IF SHOWN)
- EXCAVATED MATERIAL PLACED UP-SLOPE OF OF AG DRAIN. TO BE REMOVED WHEN BUILDING WORKS ARE COMPLETE AND USED AS FILL ON SITE FOR ANY LOW POINTS. INSTALL A SEDIMENT FENCE ON THE DOWNSLOPE OF MATERIAL
- CONSTRUCTION VEHICLES TO BE PARKED ON THE STREET OR THE DRIVEWAY ONCE PAVED TO PREVENT TRANSFERRING DEBRIC ONTO HILLTOP DRIVE

Wastewater system:

Existing septic tank and related absorption area are to be disconnected and decommissioned from use

AWTS Unit with venting according to NCC Vol 3 Tas C2D6

Absorption bed (56m^2)
1 x 12m x 4.6m x 0.6m

100% reserve area

Min 3m from upslope or level buildings
Min 2.27m from downslope buildings
Min 1.5m from upslope or level boundaries
Min 2m from downslope boundary
Min 21m from downslope surface water

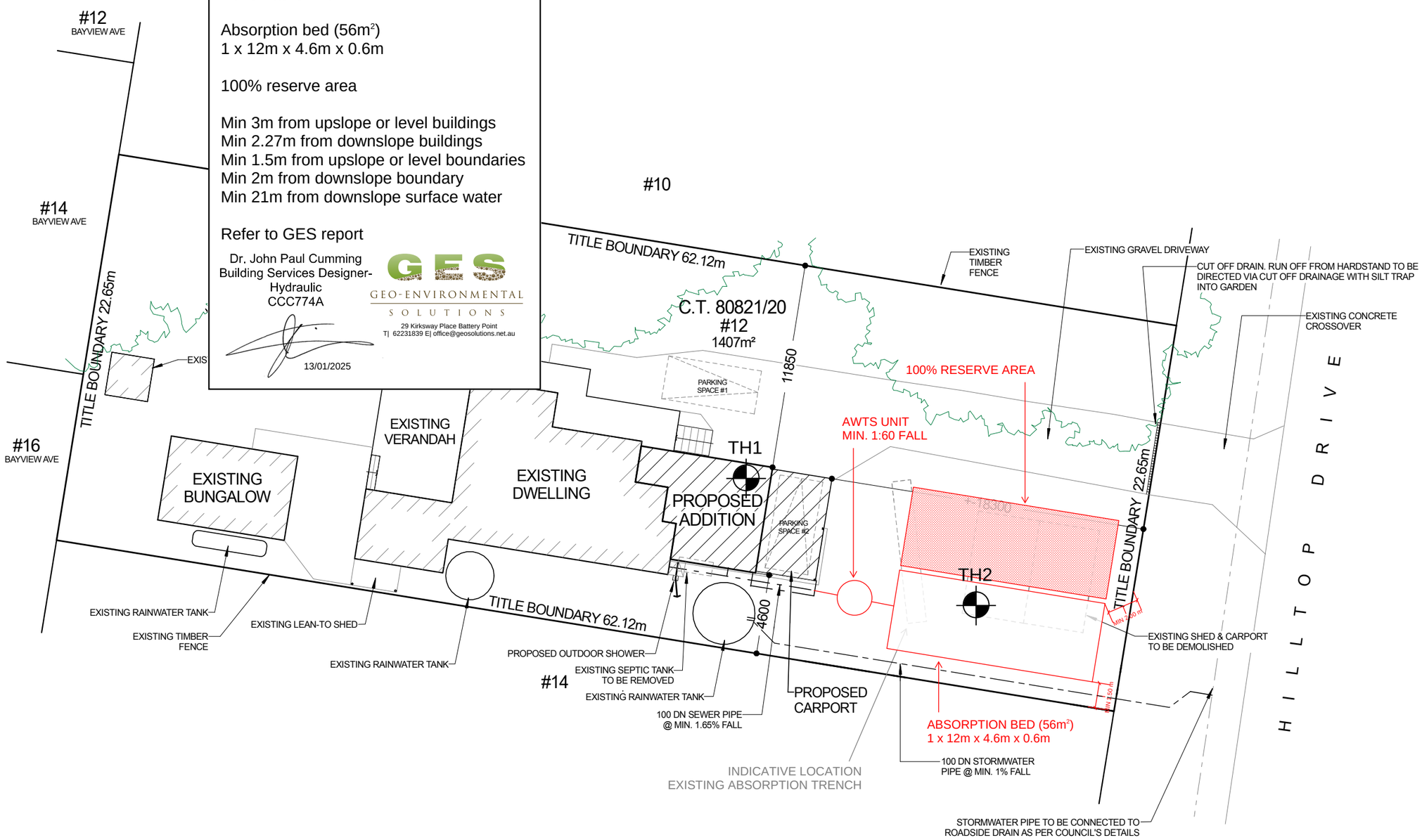
Refer to GES report

Dr. John Paul Cumming
Building Services Designer-Hydraulic
CCC774A

13/01/2025

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

NORTH



PROPOSED SITE PLAN

1:250 @ A3

Approximate Test Hole Location

jon PUGH home DESIGN

residential building design + documentation
jon pugh home design : accr/no. CC6894
jackp1@iprimus.com.au : 0459 586 013
PO BOX 397 ST HELENS TAS 7216

client:
Rich & Sarah Hori

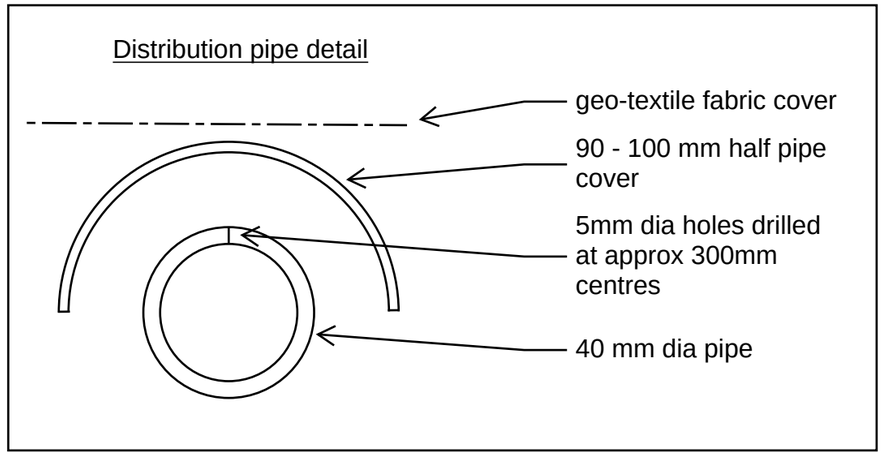
project:
Proposed Additons to Existing Dwelling and Demolition of Existing Shed/ Carport

at:
#12 Hilltop Drive,
Binalong Bay, TAS 7216

drawing title:
Proposed Site Plan

REV.	DESCRIPTION	DATE

job. no.	revision
323	-
sheet no.	date
A01	27/11/24



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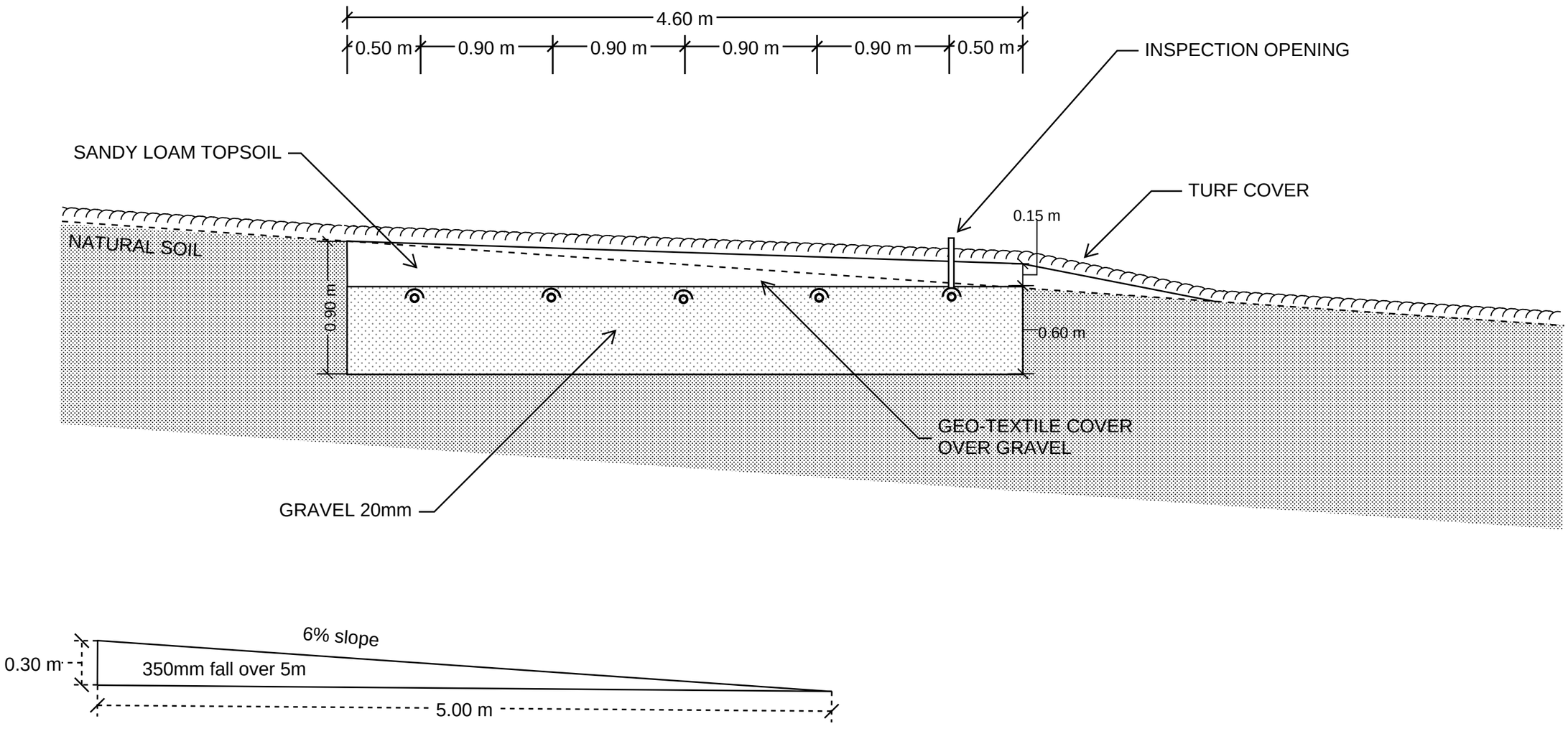

Do not scale from these drawings. Dimensions to take precedence over scale.	Modified Absorption Bed Cross-Section			On-site Wastewater Cross-Section	Sheet 1 of 2

Design notes:

1.Absorption bed dimensions of up to 15m long by 0.60m deep by 4.6m wide.

2. Base of bed to be excavated level max 900mm into natural soils and smearing and compaction avoided.

3. Bed to be filled with 20mm gravel and drilled 40mm distribution pipes packed into upper 100mm of bed.

4. 40mm distribution pipes drilled with sufficient 5mm holes in the top of the pipe (approx spacing 300mm) to distribute the effluent and half circle 90-100mm UPVC pipe, un-perforated, laid over each 40mm perforated lateral to direct water jet downwards.

5. One 5 mm hole at centre of invert of each pipe to allow for drainage between pump cycles.

6. Geotextile or filter cloth to be placed over the distribution pipes to prevent clogging of the pipes and aggregate - the sides of the bed should also be lined.

7. Final finished surface with sandy loam to be a minimum of 150 mm above aggregate with turf cover or mulched with appropriate vegetation (eg native grasses and small shrubs at 1 plant per 1 m2)

8. The turf or vegetation is an essential component of the system and must be maintained with regular mowing and or trimming as appropriate

9. The distribution pipe grid must be absolutely level to allow even distribution of effluent around the absorption area – it is recommended that the level be verified by running water into the system before backfilling and commissioning the trench

10.All works on site to comply with AS3500 and Tasmanian Plumbing code.

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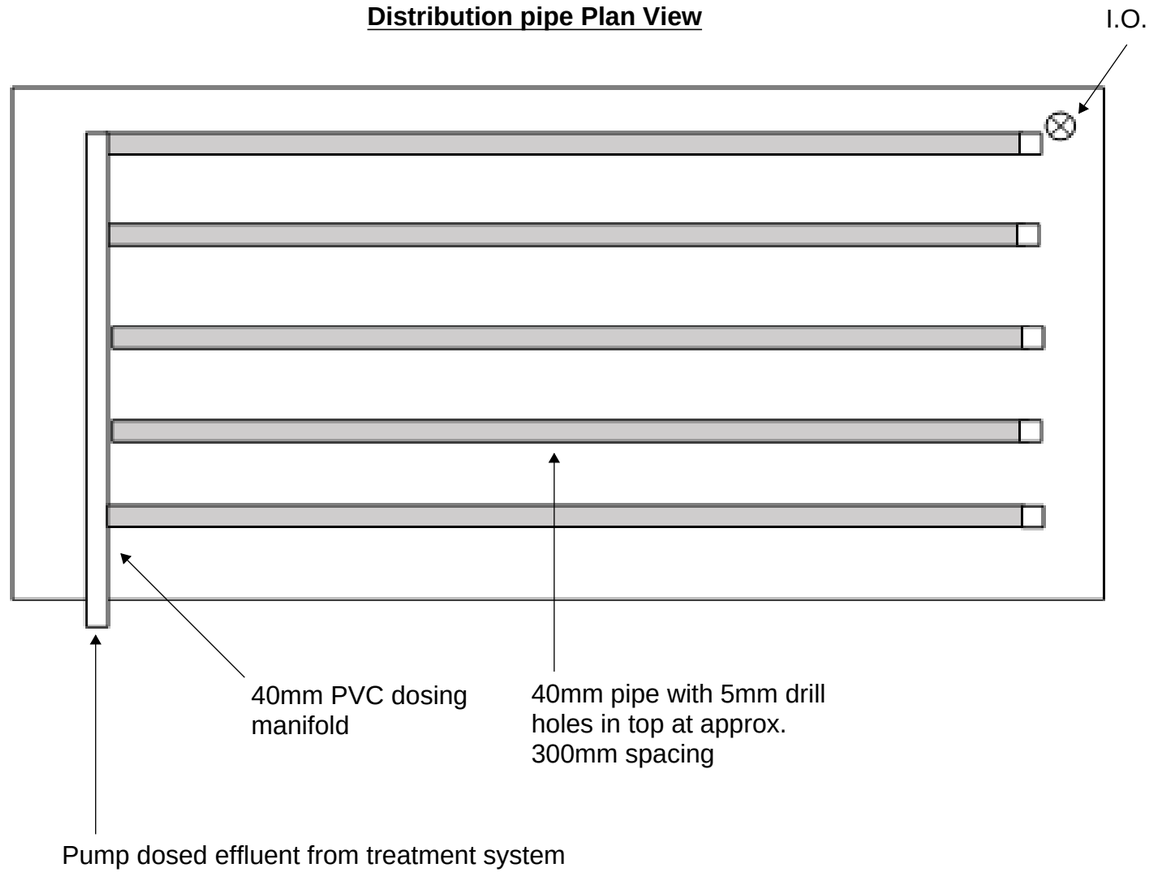
Distribution pipe Plan View



The pump must be capable of delivering the total flow rate required for all laterals whilst providing a 1.5m residual head (ie squirt height) at the highest orifice (with no more than 15% variation in squirt height across the whole bed).

For beds with individual laterals, no more than 15m long, it is acceptable to adopt a flow rate of 4-5L/min/lineal metre. Total dynamic head (including friction loss) will need to be determined on a site-specific basis.

Individual flush points must be installed for each lateral. This may be a screw cap fitting on a 90 degree elbow level with the bed surface or a pressure controlled flush valve inside an irrigation control box.

Do not scale from these drawings. Dimensions to take precedence over scale.				On-site Wastewater Design Notes	Sheet 2 of 2

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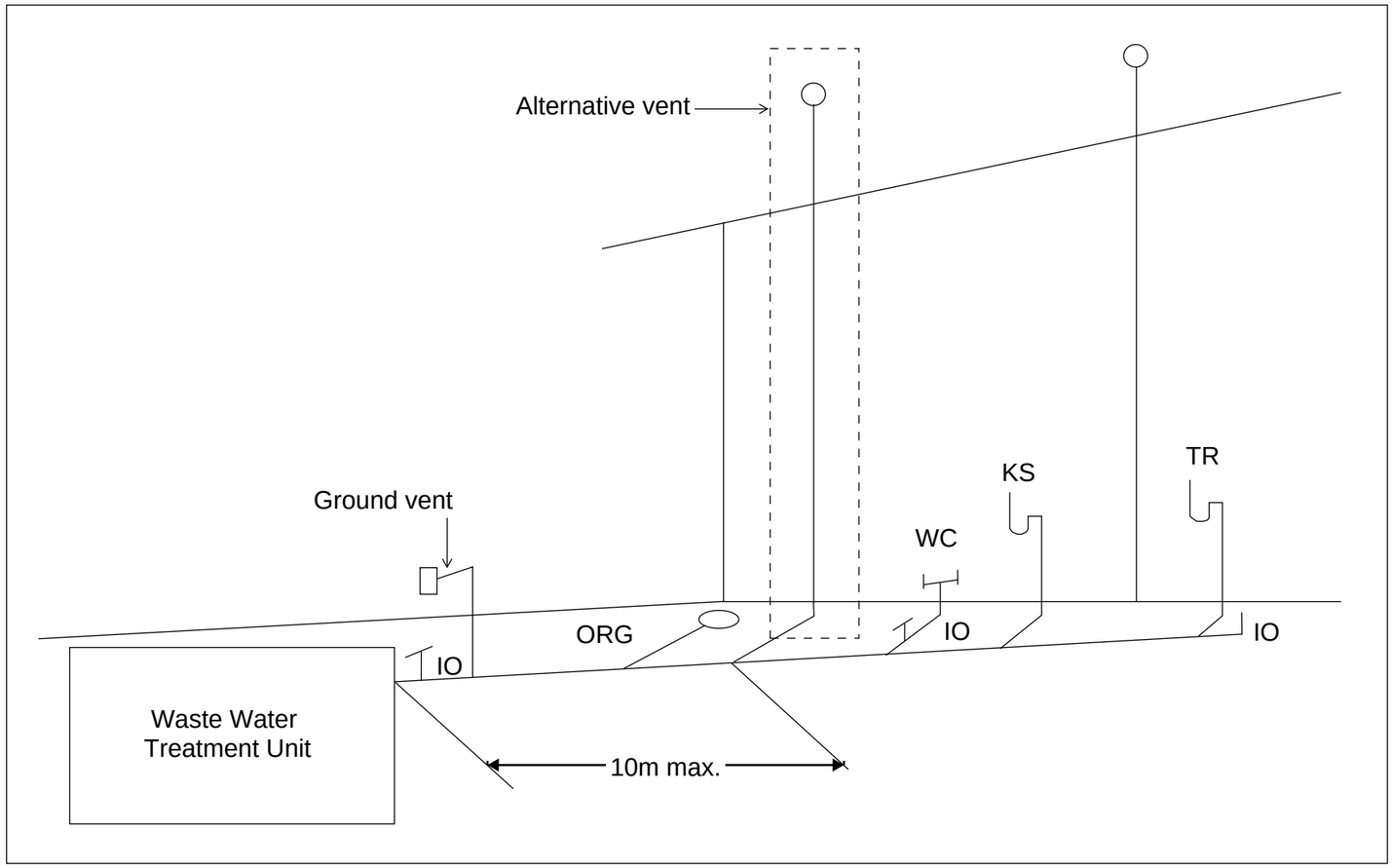

Tas Figure C2D6 Alternative Venting Arrangements

Vents must terminate in accordance with AS/NZS 3500.2

Alternative venting to be used by extending a vent to terminate as if an upstream vent, with the vent connection between the last sanitary fixture or sanitary appliance and the on-site wastewater management system. Use of a ground vent in not recommended

Inspection openings must be located at the inlet to an on-site wastewater management system treatment unit and the point of connection to the land application system and must terminate as close as practicable to the underside of an approved inspection opening cover installed at the finished surface level

Access openings providing access for desludging or maintenance of on-site wastewater management system treatment unites must terminate at or above finished surface level

Do not scale from these drawings. Dimensions to take precedence over scale.				Tas Figure C2D6 Alternative Venting Arrangements		Sheet 1 of 1