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 2026 / 00034
Applicant	Spectura Studio
Proposal	Residential - Construction of a New Dwelling and Separate Garage and Water Tanks
Location	34 Freshwater Street, Beaumaris (CT 174927/17)

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 4th April 2026 **until 5pm Tuesday 21st April 2026**.

John Brown
GENERAL MANAGER

SHEET No.	DRAWING TITLE	ISSUE	DATE
A00	Cover Sheet	B	24/03/2026 1:29 PM
A01	Site Plan	B	24/03/2026 1:29 PM
A02	Floor Plan	B	24/03/2026 1:29 PM
A03	Proposed Shed Plan	B	24/03/2026 1:29 PM
A04	Elevations	B	24/03/2026 1:29 PM
A05	Elevations 2	B	24/03/2026 1:29 PM
A06	Door / Window Schedule	B	24/03/2026 1:29 PM
A07	Finishes	B	24/03/2026 1:29 PM

Development Application

Issue: B - LGA RFI

SPECTURA
STUDIO

24/03/2026

Propoosed Dwelling & Garage

34 Freshwater St Beaumaris TAS 7215

Scale 1:200
2 0 2 4 6 8 10 12 14 16 18 20m

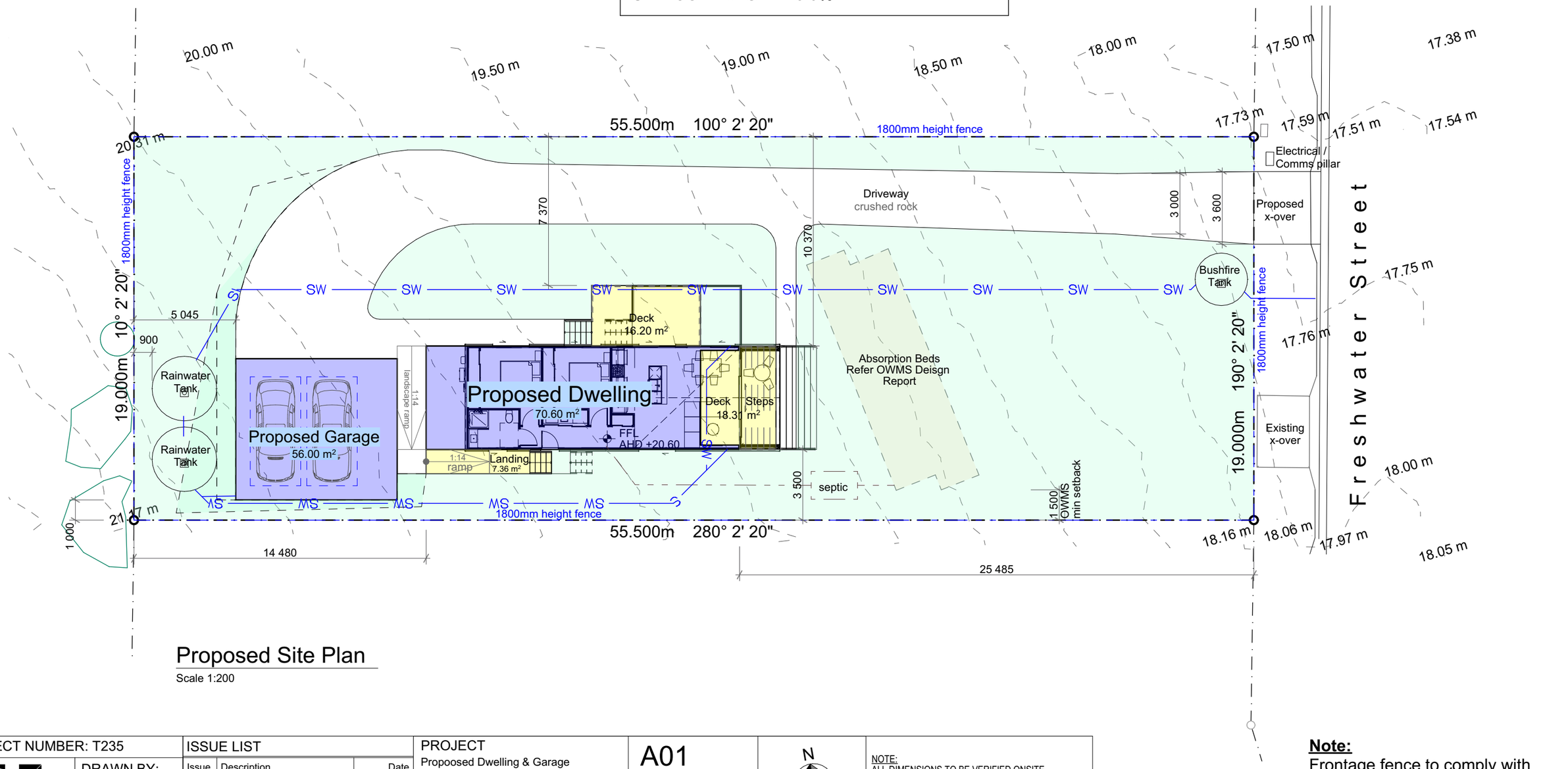
AREAS:

Proposed Dwelling:	70.60m²
Proposed Garage:	56.00m²
Proposed Deck:	16.20m²
Proposed Deck & Stairs:	18.31m²
TOTAL BUILDING FOOTPRINT:	**161.11m²**
Site Area:	**1054m²**

SITE COVERAGE: 15.3%

SITE DETAILS

ADDRESS: 34 Freshwater St Beaumaris TAS 7215
LOT/DP: 174927/17
COUNCIL: Break O'Day Council
ZONING: Low Density Residential
SITE AREA: 1054m²
SITE CLASSIFICATION: Class A
WIND RATING: N3



Proposed Site Plan

Scale 1:200

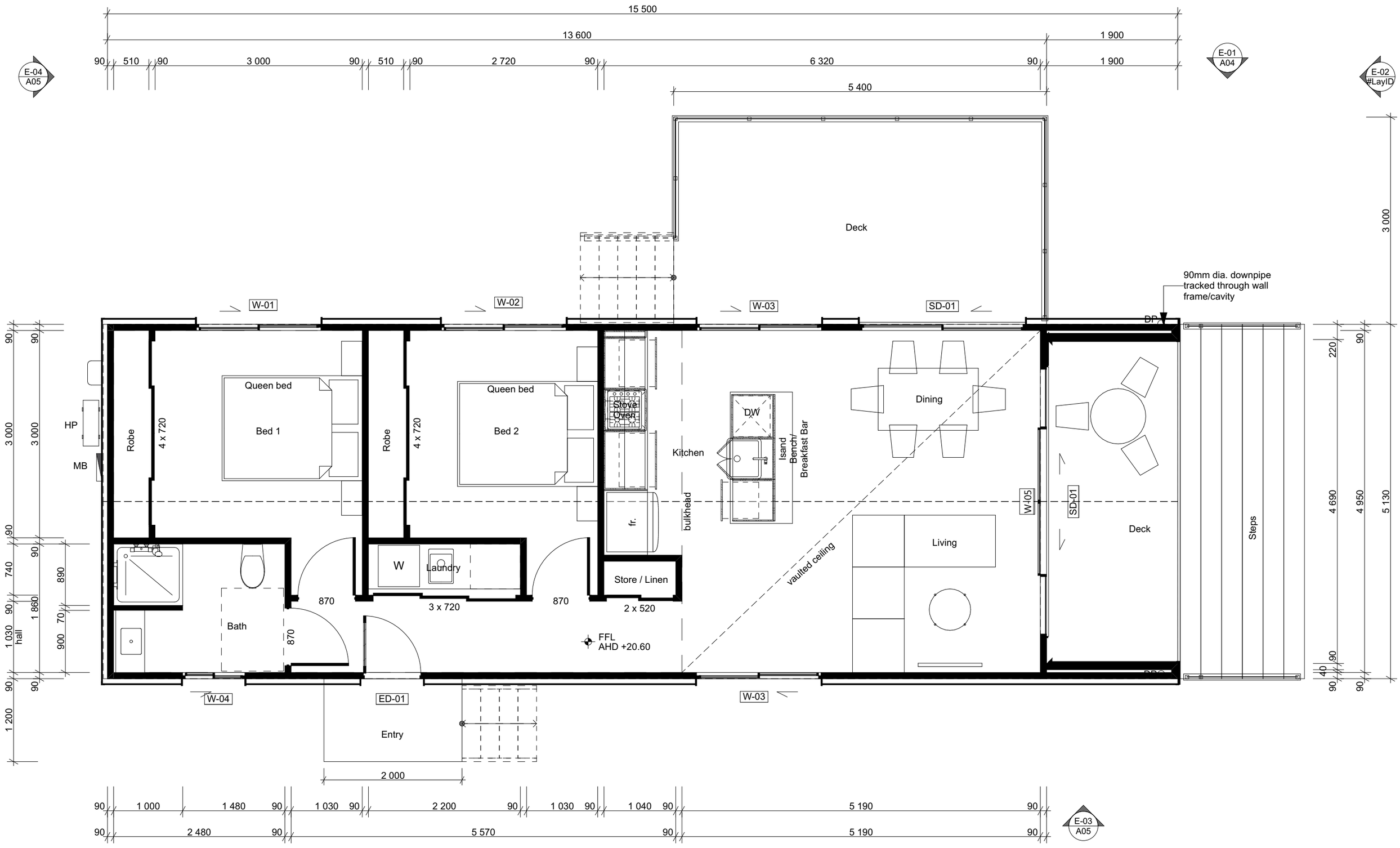
PROJECT NUMBER: T235	ISSUE LIST	PROJECT Propoosed Dwelling & Garage	A01
SPECTURA STUDIO www.spectura.com.au P: 0423 250 079 E: admin@spectura.com.au QBCC:15158346 CBOS: 964058515	DRAWN BY: MP, BP CHECKED BY: MP DATE: Tuesday, 24 March 2026 BDA&T: 6521	PROJECT ADDRESS: 174927/17 34 Freshwater St Beaumaris TAS 7215 CLIENT TMH	SHEET SIZE **A3** Site Plan SCALE: 1:200 PROJECT NUMBER: T235

Issue	Description	Date
SK1	Concept Development	18/12/2025
SK2	Concept Development	24/12/2025
SK3	Concept Finalisation	20/01/2026
A	Development Application	21/02/2026
B	LGA RFI	24/03/2026

N

NOTE:
ALL DIMENSIONS TO BE VERIFIED ONSITE BY BUILDING CONTRACTOR AND PHYSICALLY LOCATE ALL UNDERGROUND SERVICES AND THEIR LOCATION IN RELATION TO PROPOSED WORKS. WRITTEN DIMENSIONS PREFERENCED OVER SCALED DIMENSIONS. DISCREPENCIES TO BE REFERRED TO THE BUILDING DESIGNER BEFORE PROCEEDING.

Note:
Frontage fence to comply with Tasmanian Planning Scheme - State Planning Provisions Part 4.6.3 and have a uniform transparency of a miniumum of 30% between the heights of 1.2m and 1.8m above natural ground level and have a maximum height of 1.8m



PROJECT NUMBER: T235	ISSUE LIST	
SPECTURA STUDIO www.spectura.com.au P: 0423 250 079 E: admin@spectura.com.au QBCC:15158346 CBOS: 964058515	DRAWN BY: MP, BP CHECKED BY: MP DATE: Tuesday, 24 March 2026 BDA&T: 6521	

Issue	Description	Date
SK1	Concept Development	18/12/2025
SK2	Concept Development	24/12/2025
SK3	Concept Finalisation	20/01/2026
A	Development Application	21/02/2026
B	LGA RFI	24/03/2026

PROJECT
Propoosed Dwelling & Garage

PROJECT ADDRESS:
174927/17
34 Freshwater St Beaumaris TAS 7215

CLIENT
TMH

A02

SHEET SIZE **A3**

Floor Plan

SCALE: 1:50
PROJECT NUMBER: T235

N

NOTE:
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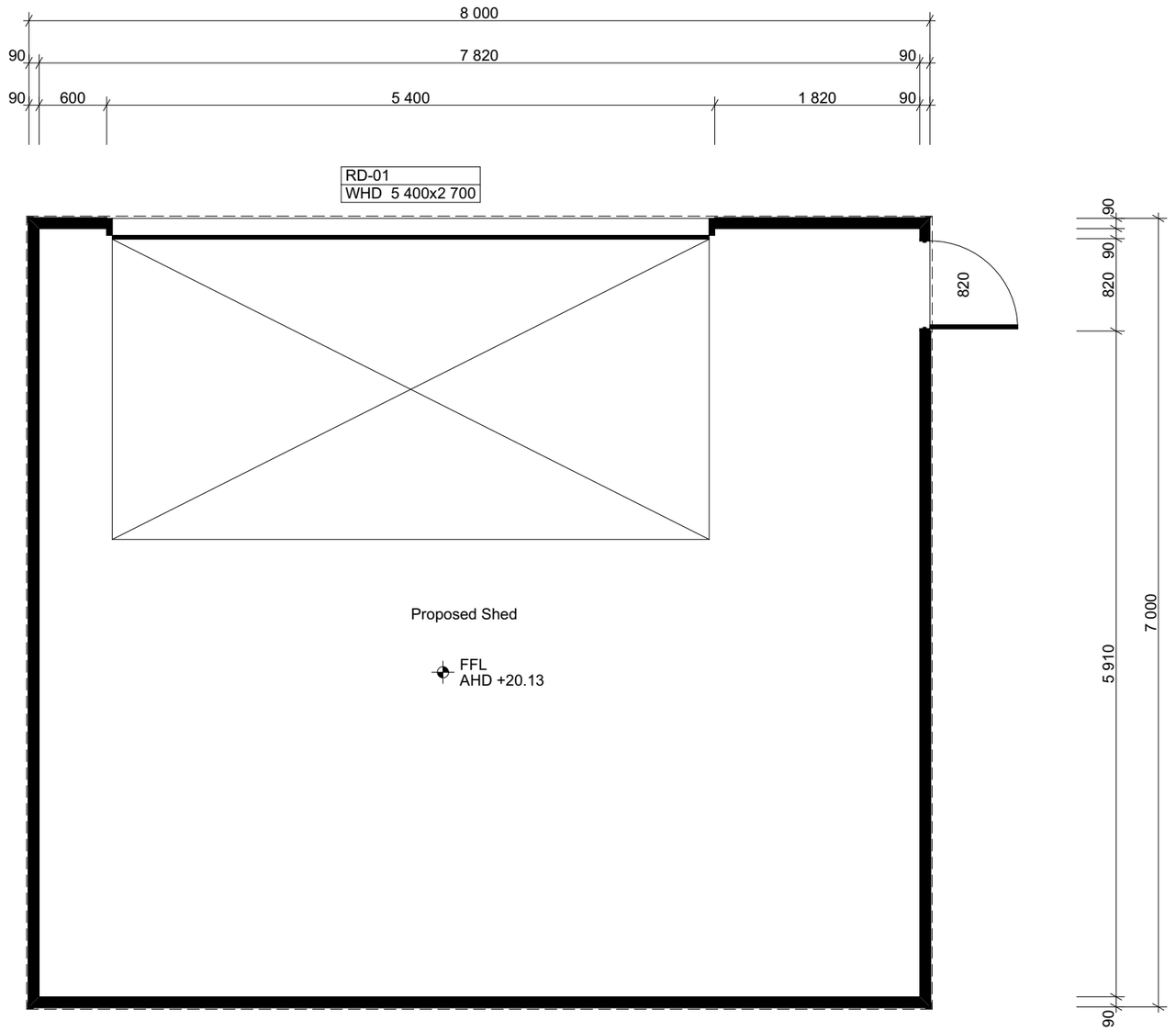
Proposed Floor Plan

Scale 1:50

Scale 1:50
0.5 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0m

Scale 1:50

0.5 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0m



Proposed Shed Plan

Scale 1:50

N

Issue	Description	Date
A	Development Application	21/02/2026
B	LGA RFI	24/03/2026	

NOT FOR CONSTRUCTION

SPECTURA

PROJECT NAME
Atlas - Beaumaris

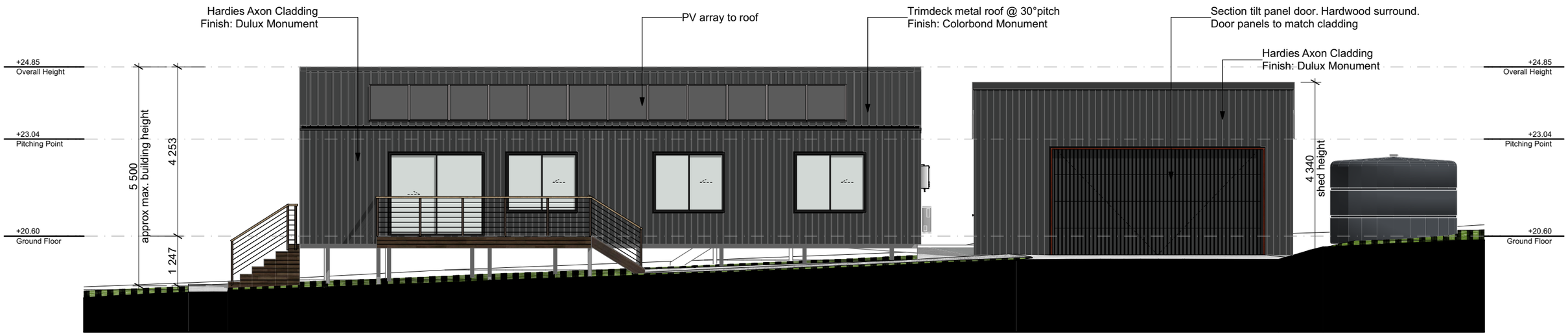
PROJECT ADDRESS:
34 Freshwater St
Beaumaris TAS 7215

A03
Proposed Shed Plan

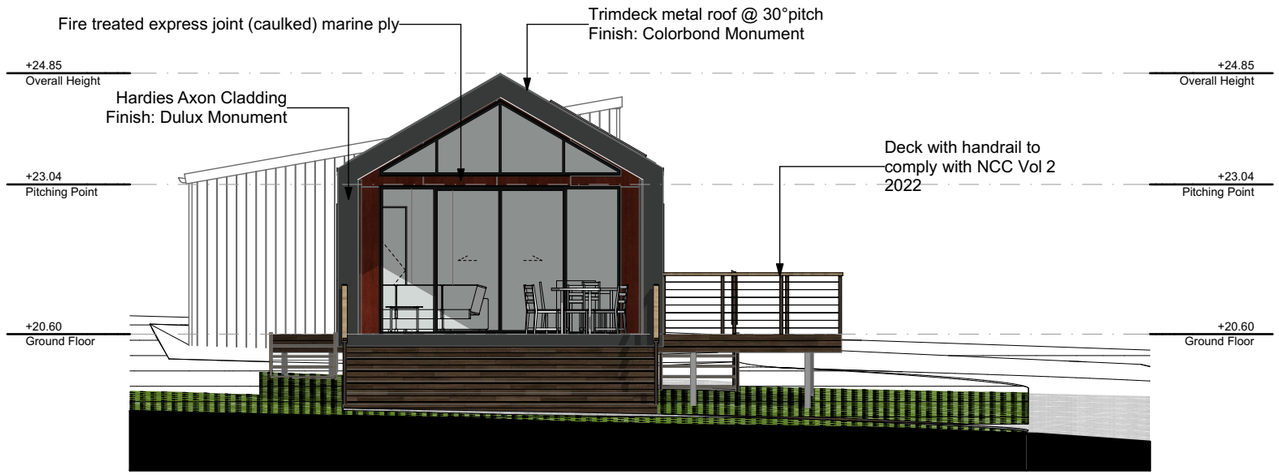
1:50

Scale 1:100
1 0 1 2 3 4 5 6 7 8 9 10m

NOTE:
Heights indicated on elevation storey levels are shown to the Australian Height Datum (AHD).



E-01 / A02 **North Elevation**
Scale 1:100



E-02 / A02 **East Elevation**
Scale 1:100

PROJECT NUMBER: T235	ISSUE LIST		
SPECTURA STUDIO www.spectura.com.au P: 0423 250 079 E: admin@spectura.com.au QBCC:15158346 CBOS: 964058515	Issue / Description / Date		
DRAWN BY: MP, BP CHECKED BY: MP DATE: Tuesday, 24 March 2026 BDA&T: 6521	SK1	Concept Development	18/12/2025
	SK2	Concept Development	24/12/2025
	SK3	Concept Finalisation	20/01/2026
	A	Development Application	21/02/2026
	B	LGA RFI	24/03/2026
PROJECT Propoosed Dwelling & Garage PROJECT ADDRESS: 174927/17 34 Freshwater St Beaumaris TAS 7215 CLIENT TMH	A04 SHEET SIZE **A3** Elevations SCALE: 1:100 PROJECT NUMBER: T235		

NOTE:
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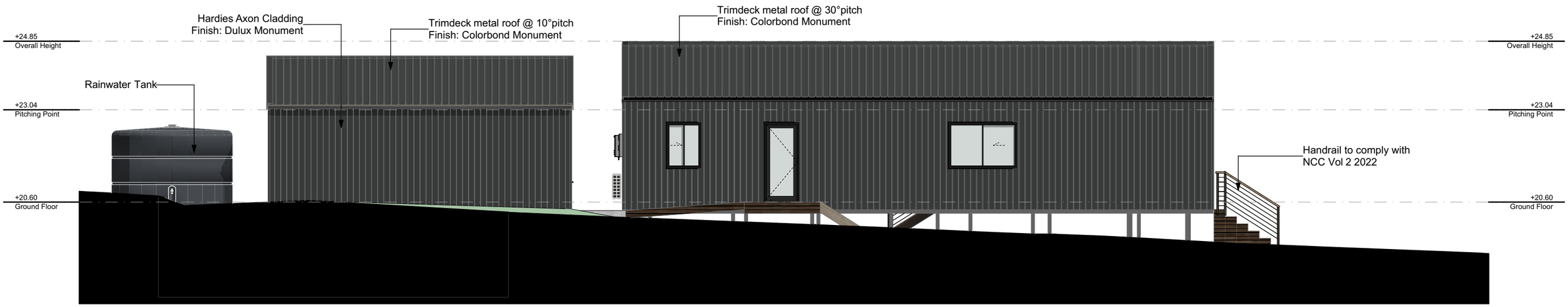
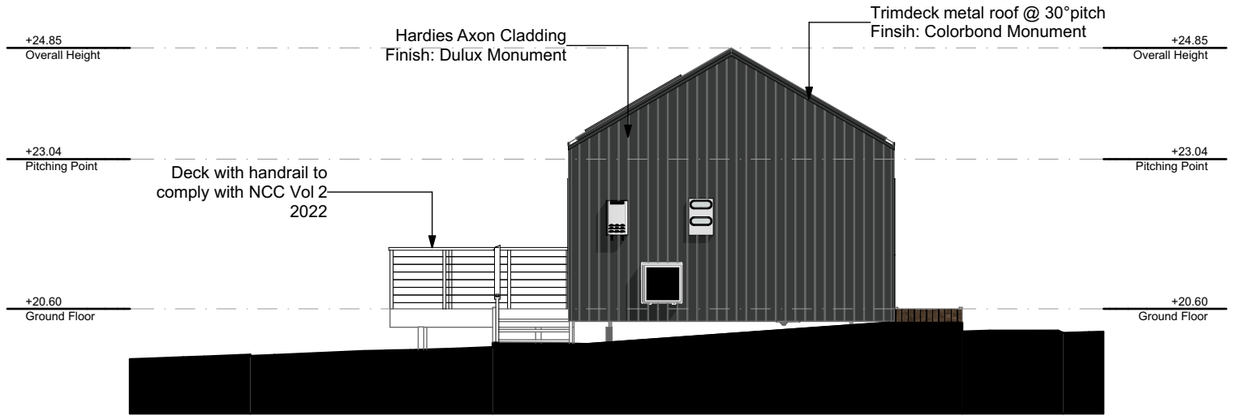
Scale 1:100
1 0 1 2 3 4 5 6 7 8 9 10m

NOTE:
Heights indicated on elevation storey levels are shown to the Australian Height Datum (AHD).



E-03 / A02 South Elevation
Scale 1:100



E-04 / A02 West Elevation
Scale 1:100

PROJECT NUMBER: T235

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CHECKED BY: MP
DATE: Tuesday, 24 March 2026
BDA&T: 6521

ISSUE LIST

Issue	Description	Date
SK1	Concept Development	18/12/2025
SK2	Concept Development	24/12/2025
SK3	Concept Finalisation	20/01/2026
A	Development Application	21/02/2026
B	LGA RFI	24/03/2026

PROJECT
Propoosed Dwelling & Garage

PROJECT ADDRESS:
174927/17
34 Freshwater St Beaumaris TAS 7215

CLIENT
TMH

A05
SHEET SIZE **A3**
Elevations 2
SCALE: 1:100
PROJECT NUMBER: T235

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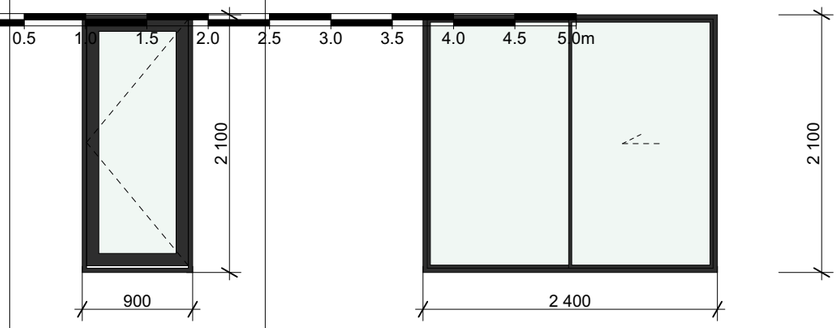
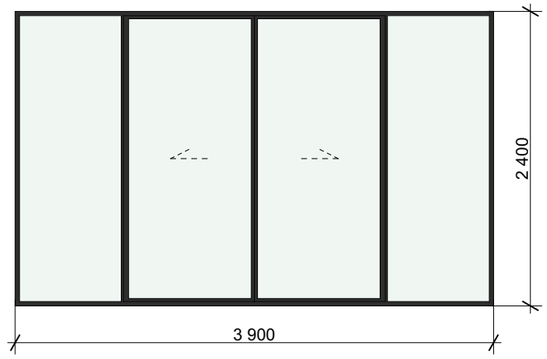
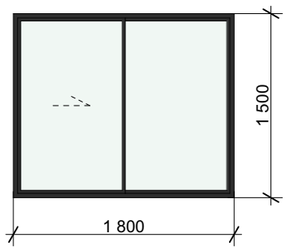
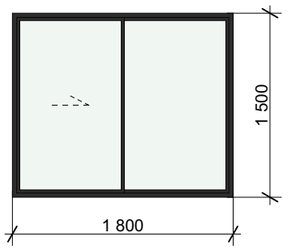
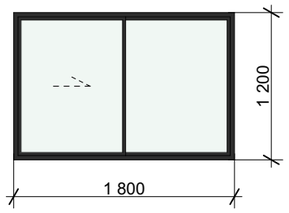
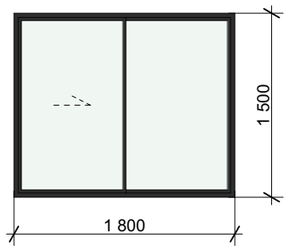
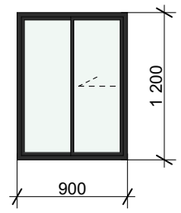
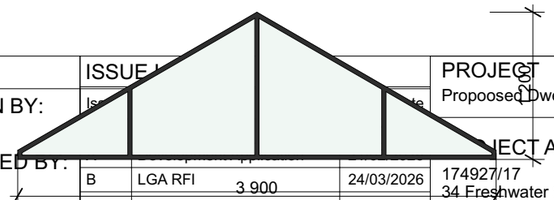
ELEVATION	Scale 1:50 0.5 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0m 			
DETAILS			Entry Door - Sliding w/ fixed glazing panels	

GLAZING SCHEDULE				
WINDOW ID	W-02		W-03	W-04
NOMINAL HEIGHT	1 500	1 200	1 500	1 200
NOMINAL WIDTH	1 800	1 800	1 800	900
HEAD HEIGHT	2 100	2 100	2 100	2 100
FRAME				
GLAZING				
WINDOW AREA	2.70	2.16	2.70	1.08
ELEVATION				
DETAILS			Kitchen	

GLAZING SCHEDULE		
WINDOW ID		W-05
NOMINAL HEIGHT	1 200	
NOMINAL WIDTH	3 900	
HEAD HEIGHT	3 796	
FRAME		
GLAZING		
WINDOW AREA	4.68	32.31 m²
DETAILS	Gable End Glazing. Note: Mullion locations indicative only. Mullions to line up with door frame/mullions below (SD-01).	



PROJECT NUMBER: T235

ISSUE

B	LGA RFI	24/03/2026	

PROJECT
Propoosed Dwelling & Garage

PROJECT ADDRESS:
174927/17
34 Freshwater St Beaumaris TAS 7215

CLIENT
TMH

A06

SHEET SIZE **A3**

Door / Window Schedule

SCALE: 1:1
PROJECT NUMBER: T235

N

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ELEVATIO

DRAWN BY:
MP, BP

CHECKED BY:
MP

DATE:
Tuesday, 24 March 2026

BDA&T: 6521

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www.spectura.com.au
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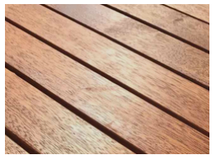
E: admin@spectura.com.au
QBCC:15158346
CBOS: 964058515

Finishes Legend

Dulux Colorbond Monument
Cladding (Hardies Axon Grain 133)
Cladding trims
Window External Sills/Reveals
Posts
Eave

Colorbond Monument
Roof sheeting (Trimdeck)
Flashings
Gutter
Fascia
Window frames to match

15mm Marine Ply Lining
Note: Sealed with Fire Defender - Timber Defence fire retardant to manufacturer specification



140mm Merbeu Decking
Deck area
Stairs

NOTE:
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WRITTEN DIMENSIONS PREFERENCED OVER SCALED DIMENSIONS.
DISCREPENCIES TO BE REFERRED TO THE BUILDING DESIGNER BEFORE PROCEEDING.

ISSUE LIST

Issue	Description	Date
A	Development Application	21/02/2026
B	LGA RFI	24/03/2026

PROJECT
Propoosed Dwelling & Garage

PROJECT ADDRESS:
174927/17
34 Freshwater St Beaumaris TAS 7215

CLIENT
TMH

SHEET SIZE **A3**

A07

Finishes

SCALE:

PROJECT NUMBER: T235

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QBCC:15158346
CBOS: 964058515

DRAWN BY:
MP, BP
CHECKED BY:
MP
DATE:
Tuesday, 24 March 2026

BDA&T: 6521

Proposed Single Dwelling & Garage

34 Freshwater St
Beaumaris
TAS 7215

Planning Scheme Response

February 2026
LGA RFI March 2026

SPECTURA STUDIO
BUILDING DESIGN

SPECTURA STUDIO
6 Sunrise Court Scamander
info@spectura.com.au
0423 250 079
www.spectura.com.au

Subject site & locality

1.0 Introduction

This planning scheme response supports the development application for a proposed single dwelling and detached garage, to be located at 34 Freshwater St, Beaumaris. The proposed development is situated within the Low Density Zone as defined in the Tasmanian Planning Scheme - State Planning Provisions (SPP).

This document's coverage is for the Performance Criteria clauses in the SPP relevant to the related Development Application.

2.0 Project Description

The project involves the construction/installation of a single dwelling and detached garage on a currently vacant lot.

3.0 Planning Assessment

The following planning items listed rely on performance criteria. If a clause is not listed below, it is due to the proposed development being seen as meeting planning scheme provisions by means of the acceptable solutions relating to that clause.

3.1 Compliance with Low Density Residential Zone (LDRZ)

Objective:
The Low Density Residential Zone aims to provide for residential use and development in areas where the density of development is compatible with the environmental characteristics of the land and its ability to support low-density residential development.

Development Standards:
The proposal has been assessed against the relevant development standards of the LDRZ for a dwelling and garage, including:

- **Building Height (10.4.2):** The proposed dwelling and garage will exceed the 8.5m building height limit for the zone. The proposed height of the additions is ~5.5m metres above natural ground level, which complies with this standard.

- **Setbacks (10.4.3):** The proposed additions respect the existing setback conditions and comply with the minimum setback requirements:
    - Front setback: 25.5 metres (minimum required: 4.5 metres)
    - Side setback: 3.5 metres (minimum required: 5 metres)
    - Rear setback: 14.5 metres (minimum required: 5 metres)

  The southern side setback does not meet acceptable solution criteria, so must be assessed against the relevant performance criteria, stated as follows:

  The siting of a dwelling must not cause an unreasonable loss of amenity to adjoining properties, having regard to:
  (a) the topography of the site;
  (b) the size, shape and orientation of the site;
  (c) the setbacks of surrounding buildings;
  (d) the height, bulk and form of existing and proposed buildings;
  (e) the existing buildings and private open space areas on the site;
  (f) sunlight to private open space and windows of habitable rooms on adjoining properties; and
  (g) the character of development existing on established properties in the area.

  The proposal is not viewed as causing a loss of amenity to adjoining properties as the building's current setbacks are similar to existing development in the locality reinforced by the building's form considering its surrounds.
  All aspects of the performance criteria have been considered in the design of the proposed addition, with the impact of the change of use seen as minimal and meeting the setback performance criteria.

  LGA RFI – 24/03/26: Rainwater tank, Bushfire tank locations:

  The bushfire tank does not meet acceptable solution A1 criteria, and the rainwater tanks do not meet the acceptable solution A2 criteria. They have been assessed against the relevant performance criteria, with the following observations:

  The siting of the rain water and bushfire tanks are not viewed as causing a loss of amenity to adjoining properties as the tank's current setbacks are similar to existing development in the locality and are of low impact and align with said existing development, given that the tanks are required for habitation by all surrounding residential development.
  All aspects of the performance criteria have been considered in the design of the proposed addition, with the impact of the change of use seen as minimal and meeting the setback performance criteria.

- **Site Coverage (10.4.4):** The total site coverage after the proposed additions will be 15.3%, within the allowable limit of 30% for the LDRZ.

3.2 Compliance with Overlay Codes

C2.0 Parking and Sustainable Transport Code

- **C2.6.1 – Construction of Parking Areas**

A1 - All parking, access ways, manoeuvring and circulation spaces must:
(a) be constructed with a durable all-weather pavement;
(b) be drained to the public stormwater system, or contain stormwater on the site; and
(c) excluding all uses in the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement.

P1 - All parking, access ways, manoeuvring and circulation spaces must be readily identifiable and constructed so that they are useable in all weather conditions, having regard to:
(a) the nature of the use;
(b) the topography of the land;
(c) the drainage system available;
(d) the likelihood of transporting sediment or debris from the site onto a road or public place;
(e) the likelihood of generating dust; and
(f) the nature of the proposed surfacing.

Response:

The proposed car park is to be concrete (enclosed, garage), with parking access (driveway) to be crushed rock (gravel) which is viewed as a durable all-weather pavement when constructed correctly. In response to P1:

(a) The use as a residence is low impact and low traffic, a gravel driveway is seen as an appropriate provision.
(b) The proposed driveway is set out over land with a low (<5%) grade. The driveway grade is to be in compliance with AS2890 / LGAT Standard Drawings for urban driveways which will allow for appropriate settlement and usage with the designated pavement.
(c) The permeable nature of the proposed driveway allows for sufficient drainage to take place, with minimal change to existing conditions.
(d) The topography of the site slopes away from the road, with ample space for provision of drainage/catchment of sediment/debris on-site, with the proposed location of the driveway seen as a stable and sufficient substrate for a crushed rock driveway, with sediment transportation onto the road not anticipated.
(e) The low traffic use of the driveway is not seen as causing an impact in regard to dust generation – As is seen in the adjacent driveways in Freshwater St.
(f) As also seen with precedence in Freshwater St – gravel driveways and parking spaces are an appropriate surface capable of handling the traffic anticipated from a single dwelling.

BRE-S2.7 Development Standards for Buildings and Works

BRE-S2.7.1 Stormwater Management

Objective: That development provides for adequate stormwater management.

A1
Development must be:
(a) capable of connecting to the public stormwater system; or
(b) permitted by the General Manager to discharge stormwater to a system other than the public stormwater system.

Performance criteria solution required.

P1
Development must be capable of accommodating an on-site stormwater management system adequate for the development, having regard to:
(c) topography of the site;
(d) the size and shape of the site;
(e) soil conditions;
(f) any existing buildings and any constraints imposed by existing development on the site;
(g) any area of the site covered by impervious surfaces;
(h) any watercourses on the land;
(i) stormwater quality and quantity management targets identified in the State Stormwater Strategy 2010; and
(j) any advice from a suitably qualified person on the seasonal water table at the site, risks of inundation, land instability or coastal erosion.

Stormwater management is to be provided via means of 2 x rainwater tanks providing detention with overflow running to street kerb via bushfire fighting tank. This approach is seen as meeting all performance criteria listed above and is adequate for the development requirements.

4.0 Conclusion

The proposed residential development at 34 Freshwater Drive Beaumaris is viewed as complying with the relevant provisions of the Tasmanian Planning Scheme for the General Residential Zone and applicable Code Overlays. The design and layout of the site have been carefully considered to ensure compatibility with the surrounding area and to meet the objectives of the zone.

We respectfully request that the planning authority grant approval for this development application.

Thank you,

Matthew Purves
Spectura Studio
CBOS Tas: 96405851

GEO-ENVIRONMENTAL SITE ASSESSMENT

34 Freshwater Street

Beaumaris

February 2026

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	Spectura Studio
Site Address:	34 Freshwater Street, Beaumaris
Date of Inspection:	29/01/2026
Proposed Works:	New dwelling
Investigation Method:	Geoprobe 540UD – Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	174927/17
Title Area:	Approx. 1072m^2
Applicable Planning Overlays:	Bushfire-prone Areas
Slope & Aspect:	Approx. 5% E facing slope
Vegetation:	Mixed flora

Background Information

Geology Map:	MRT 1:25 000
Geological Unit:	Tertiary sediments
Climate:	Annual rainfall approx. 700mm
Water Connection:	Tank
Sewer Connection:	Unserviced-On-site required
Testing and Classification:	*AS2870:2011, AS1726:2017, AS1547:2012 & AS4055:2021*

Investigation

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

Engineering Profile Summary

BH1 Depth (m)	BH3 Depth (m)	USCS	Description
0.00 – 0.30	0.00 – 0.40	SM	**Silty SAND**: dark grey, dry, medium dense to dense, medium-grained
0.30 – 1.00	0.40 – 0.90	SP	**Silty SAND**: grey, slightly moist, dense, fine- to coarse-grained
1.00 – 1.10	0.90 – 1.00	SW	**SAND**: pale grey, slightly moist, very dense, trace GRAVELS, medium- to coarse-grained, refusal on assumed rock.

Wastewater Profile Summary

BH2 Depth (m)	USCS	Description
0.00 – 0.30	SM	**Silty SAND**: dark grey, dry, medium dense to dense, medium-grained
0.30 – 1.40	SP	**Silty SAND**: grey, slightly moist, dense, fine- to coarse-grained
1.40 – 1.50	SW	**SAND**: pale grey, slightly moist, very dense, trace GRAVELS, medium- to coarse-grained, refusal on assumed rock.

Site Notes

The soils encountered on site were generally consistent throughout bore holes drilled, which were natural sandy topsoils overlying moderately deep alluvial and aeolian deposits. These soils are non-reactive and are not expected to exhibit any ground surface movements with moisture fluctuations. The site has good capacity for onsite wastewater disposal, with high permeability but limited nutrient adsorption capacity.

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 A

y_s range: **0mm**

Notes: that is a non-reactive sand site.

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:	PS
Topographic Classification:	T1
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 **Sandy LOAM (Category 2)**. It is proposed to install a primary treatment system with onsite absorption to service the proposed dwelling. A Design Loading Rate (DLR) of 20L/m^2/day has been assigned for the site.

The proposed two-bedroom dwelling has a calculated maximum wastewater loading of 480L/day. This is based on a tank water supply and a maximum occupancy of 4 people (120L/person/day). Using the DLR of 20L/m^2/day, an absorption area of 24m^2 will be required. This may be accommodated by one 12m x 2m x 0.60m absorption bed connected to a dual-purpose septic tank with outlet filter (min 3000L).

A cut-off drain is not required due to the highly permeable soils on site. The wastewater area must be kept free from vehicular traffic and development that may impede the function of the absorption bed. Depending on driveway and landscaping design, protective measures (e.g., several small boulders or bollards) may be required to protect the area from vehicles.

A 100% reserve area should be set aside for future wastewater requirements. For further detail please refer to the attached plan and Trench summary reports.

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

Upslope and level buildings:	3m
Downslope buildings:	8m
Upslope or level boundaries:	1.5m
Downslope boundary:	8m
Downslope surface water:	43m

Demonstration of the system being consistent with Building Act 2016 Guidelines for On-site Wastewater Management Systems is outlined in the attached table.

Construction Notes & Recommendations

According to "*AS2870-2011 Residential slabs & footings"* the site has been classified as **Class A** – that is a non-reactive sand or rock site.

All earthworks on site must comply with AS3798:2007, 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 wastewater loading or foundation conditions as outlined in this report.

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

Director

Explanatory Notes

1 Scope of Works

The methods of description and classification of soils used in this report are based largely on Australian Standard 1726 – Geotechnical Site Investigations (AS1726:2017), with reference to Australian Standard 1289 – Methods for testing soils for engineering purposes (AS1289), for eventual Site Classification according to Australian Standard 2870 (AS2870:2011) – Residential Slabs and Footings and Australian Standard 1547 (AS1547:2012) On-site domestic wastewater management.

1.1 Site Classification AS2870:2011

Site classification with reference to the above Australian Standards are based on site reactivity.

Class	Foundation Conditions	Characteristic Surface Movement
A	Most sand and rock sites with little or no ground movement from moisture changes.	**0mm**
S	Slightly reactive clay sites, which may experience only slight ground movement from moisture changes.	**0 – 20mm**
M	Moderately reactive clay or silt sites, which may experience moderate ground movement from moisture changes.	**20 – 40mm**
H-1	Highly reactive clay sites, which may experience high ground movement from moisture changes.	**40 – 60mm**
H-2	Highly reactive clay sites, which may experience very high ground movement from moisture changes.	**60 – 75mm**
E	Extremely reactive sites, which may experience extreme ground movement from moisture changes.	**>75mm**

*Note: Soils where foundation performance may be significantly affected by factors other than reactive soil movement are classified as **Class P**.*

A site is classified as **Class P** when:

- The bearing capacity of the soil profile in the foundation zone is generally less than 100kpa
- If excessive foundation settlement may occur due to loading on the foundation.
- The site contains uncontrolled fill greater than 0.8m in depth for sandy sites and 0.4m in depth for other soil materials.
- The site is subject to mine subsistence, landslip, collapse activity or coastal erosion.
- The site is underlain by highly dispersive soils with significant potential for erosion
- If the site is subject to abnormal moisture conditions which can affect foundation performance

1.2 Soil Characterisation

This information explains the terms of phrase used within the soil description area of the report.

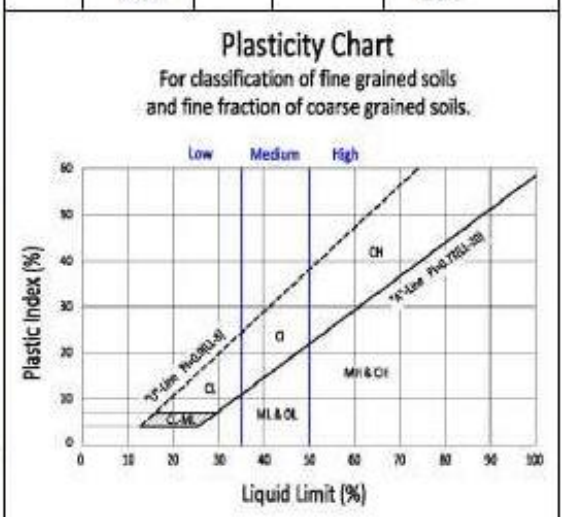
It includes terminology for cohesive and non-cohesive soils and includes information on how the Unified Soil Classification Scheme (USCS) codes are determined.

NON COHSIVE – SAND & GRAVEL		
Consistency Description	**Field Test**	**Dynamic Cone Penetrometer blows/100 mm**
Very loose (VL)	Easily penetrated with 13 mm reinforcing rod pushed by hand.	0 - 1
Loose (L)	Easily penetrated with 13 mm reinforcing rod pushed by hand. Can be excavated with a spade; 50 mm wooden peg can be easily driven.	1 - 3
Medium dense (MD)	Penetrated 300 mm with 13 mm reinforcing rod driven with 2 kg hammer, - hard shovelling.	3 - 8
Dense (D)	Penetrated 300 mm with 13 mm reinforcing rod driven with 2 kg hammer, requires pick for excavation: 50 mm wooden peg hard to drive.	8 - 15
Very dense (VD)	Penetrated only 25 - 50 mm with 13 mm reinforcing rod driven with 2 kg hammer.	>15

COHESIVE - SILT & CLAY		
Consistency Description	**Field Test**	**Indicative undrained shear strength kPa**
Very soft	Easily penetrated >40 mm by thumb. Exudes between thumb and fingers when squeezed in hand.	<12
Soft	Easily penetrated 10 mm by thumb. Moulded by light finger pressure	>12 and <25
Firm	Impression by thumb with moderate effort. Moulded by strong finger pressure	>25 and <50
Stiff	Slight impression by thumb cannot be moulded with finger.	>50 and <100
Very Stiff	Very tough. Readily indented by thumbnail.	>100 and <200
Hard	Brittle. Indented with difficulty by thumbnail.	>200

1.3 USCS Material Descriptions

Soils for engineering purposes are the unconsolidated materials above bedrock, they can be residual, alluvial, colluvial or aeolian in origin.

Major Divisions		Particle size mm	USCS Group Symbol	Typical Names	Laboratory Classification				
					% < 0.075 mm (2)	Plasticity of fine fraction	$C_u = \frac{D_{60}}{D_{10}}$	$C_c = \frac{(D_{30})^2}{(D_{10})(D_{60})}$	NOTES
COARSE GRAINED SOILS (more than half of material less than 63 mm is larger than 0.075 mm)	BOULDERS	200							
	COBBLES	63							
	GRAVELS (more than half of coarse fraction is larger than 2.36 mm)	coarse 20 medium 6 fine 2.36	GW	Well graded gravels and gravel-sand mixtures, little or no fines	0-5	—	>4	Between 1 and 3	(1) Identify fines by the method given for fine-grained soils. (2) Borderline classifications occur when the percentage of fines (fraction smaller than 0.075 mm size) is greater than 5% and less than 12%. Borderline classifications require the use of SP-SM, GW-GC.
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines, uniform gravels	0-5	—	Fails to comply with above		
			GM	Silty gravels, gravel-sand-silt mixtures (1)	12-50	Below 'A' line or PI<4	—	—	
			GC	Clayey gravels, gravel-sand-clay mixtures (1)	12-50	Above 'A' line and PI>7	—	—	
	SANDS (more than half of coarse fraction is smaller than 2.36 mm)	coarse 0.6 medium 0.2 fine 0.075	SW	Well graded sands and gravelly sands, little or no fines	0-5	—	>6	Between 1 and 3	
			SP	Poorly graded sands and gravelly sands, little or no fines	0-5	—	Fails to comply with above		
			SM	Silty sands, sand silt mixtures (1)	12-50	Below 'A' line or PI<4	—	—	
			SC	Clayey sands, sand-clay mixtures (1)	12-50	Above 'A' line and PI>7	—	—	
FINE GRAINED SOILS (more than half of material less than 63 mm is smaller than 0.075 mm	SILTS & CLAYS (Liquid Limit ≤50%)		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Use the gradation curve of material passing 63 mm for classification of fractions according to the criteria given in 'Major Divisions'				
			CL CI	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays					
			OL	Organic silts and clays of low plasticity					
	SILTS & CLAYS (Liquid Limit >50%)		MH	Inorganic silts, mic- aceous or diato-maceous fine sands or silts, elastic silts					
			CH	Inorganic clays of high plasticity, fat clays					
			OH	Organic silts and clays of high plasticity					
	HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils					

Grain size analysis is performed by two processes depending on particle size. Sand silt and clay particles are assessed using a standardised hydrometer test, and coarse sand and larger is assessed through sieving by USCS certified sieves. For more detail see the following section.

Soil Classification	Particle Size
Clay	Less than 0.002mm
Silt	0.002 – 0.06mm
Fine/Medium Sand	0.06 – 2.0mm
Coarse Sand	2.0mm – 4.75mm
Gravel	4.75mm – 60.00mm

1.4 Bearing Capacities and DCP testing.

DCP and PSP weighted penetrometer tests – Dynamic Cone Penetrometer (DCP) and Perth Sand Penetrometer (PSP) tests are carried out by driving a rod into the ground with a falling weight hammer and measuring the blows for successive 100mm increments of penetration. Normally, there is a depth limitation of 1.2m but this may be extended in certain conditions by the use of extension rods. The methods for the two tests are quite similar.

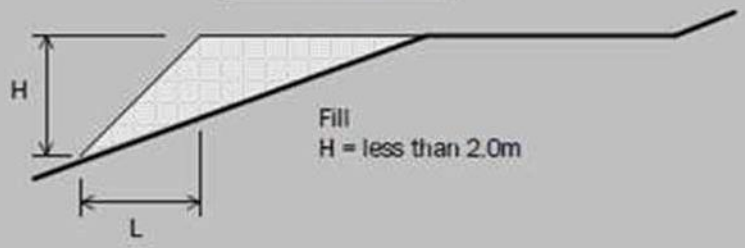
- Dynamic Cone Penetrometer – a 16mm rod with a 20mm diameter cone end is driven with a 9kg hammer dropping 510mm (AS 1289, Test 6.3.2).
- Perth Sand Penetrometer – a 16mm diameter flat-ended rod is driven with a 9kg hammer, dropping 600mm (AS 1289 Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.

Site Anomalies – During construction GES will need to be notified of any major variation to the foundation conditions as predicted in this report.

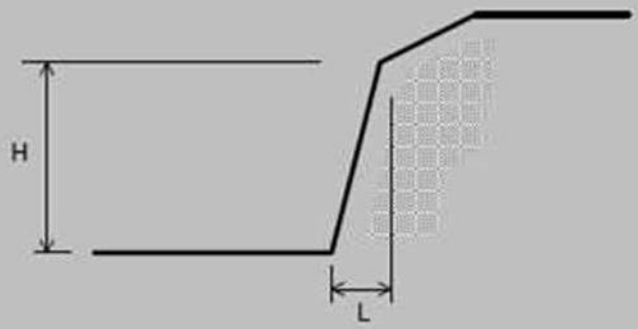
1.5 Batter Angles for Embankments *(Guide Only)*

Note : Retaining walls or other form of soil retaining methods must be adopted where the slope ratio is greater than that indicated in the table below :-

FILL EMBANKMENTS



CUT EMBANKMENTS



MATERIAL TYPE (refer soils report)		EMBANKMENT SLOPES (Height : Length)	
		Compacted Fill	Cutting
Stable Rock (A*)		2 : 3	6 : 1
Sand (A*)		1 : 2	2 : 3
Silt (P*)		1 : 4	1 : 4
Clay	Firm Clay	1 : 2	1 : 1
	Soft Clay	Not Suitable	2 : 3
Soft Soils (P*)		Not Suitable	Not Suitable

Glossary of Terms

Bearing Capacity – Maximum bearing pressure that can be sustained by the foundation from the proposed footing system under service loads which should avoid failure or excessive settlement.

Clay – (Mineral particles less than 0.002mm in diameter). Fine grained cohesive soil with plastic properties when wet. Also includes sandy clays, silty clays, and gravelly clays.

Dynamic Cone Penetrometer (DCP) – Field equipment used to determine underlying soil strength and therefore bearing capacity (kPa) by measuring the penetration of the device into the soil after each hammer blow.

Dispersive soil – A soil that has the ability to pass rapidly into suspension in water.

Footing – Construction which transfers the load from the building to the foundation.

Foundation – Ground which supports the building

Landslip – Foundation condition on a sloping site where downhill foundation movement or failure is a design consideration.

Qualified Engineer – A professional engineer with academic qualifications in geotechnical or structural engineering who also has extensive experience in the design of the footing systems for houses or similar structures.

Reactive Site – Site consisting of clay soil which swells on wetting and shrinks on drying by an amount that can damage buildings on light strip footings or unstiffened slabs. Includes sites classified as S, M, H-1, H-2 & E in accordance with AS2870-2011.

Sand – (Mineral particles greater than 0.02mm in diameter). Granular non-cohesive, non-plastic soil that may contain fines including silt or clay up to 15%.

Services – Means all underground services to the site including but not limited to power, telephone, sewerage, water & storm water.

Silt – (Mineral particles 0.002 – 0.02mm in diameter). Fine grained non-cohesive soil, non-plastic when wet. Often confers a silky smoothness of field texture, regularly includes clay and sand to form clayey silts, sandy silts and gravelly silts.

Site – The site title, as denoted by address, lot number, or Certificate of Title (CT) number, or Property Identification Number (PID).

Surface Movement (Ys) – Design movement (mm) at the surface of a reactive site caused by moisture changes.

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 a third 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	Spectura Studio	Assess. Date	11-Feb-26
		Ref. No.	
Assessed site(s)	34 Freshwater Street, Beaumaris	Site(s) inspected	29-Jan-26
Local authority	Break O' Day	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 = 480 (using the 'No. of bedrooms in a dwelling' method)
Septic tank wastewater volume (L/day) = 160
Sullage volume (L/day) = 320
Total nitrogen (kg/year) generated by wastewater = 1.5
Total phosphorus (kg/year) generated by wastewater = 1.0

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)	74	55	64	50	43	56	41	58	57	70	75	54
Adopted rainfall (R, mm)	74	55	64	50	43	56	41	58	57	70	75	54
Retained rain (Rr, mm)	66	49	58	45	39	50	37	52	51	63	68	49
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	**64**	**61**	**33**	**18**	**3**	**-21**	**-5**	**-10**	**12**	**21**	**37**	**77**

Annual evapotranspiration less retained rain (mm) = 291

Soil characterisitics

Texture = Sandy LOAM Category = 2 Thick. (m) = 1.5
Adopted permeability (m/day) = 3 Adopted LTAR (L/sq m/day) = 20 Min depth (m) to water = 5

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 dual purpose septic tank(s)
The preferred method of on-site secondary treatment:	In-ground
The preferred type of in-ground secondary treatment:	Trench(es)
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) =	2
Depth (m) =	0.6
Total disposal area (sq m) required =	24
comprising a Primary Area (sq m) of:	24
and a Secondary (backup) Area (sq m) of:	

Sufficient area is available on site

Comments

Using a DLR of 20L/m^2/day for the Category 2 soils on site, an absorption area of 24m^2 is required for primary treated effluent. Therefore the system should have the capacity to cope with extreme 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	Spectura Studio	Assess. Date	11-Feb-26
		Ref. No.	
Assessed site(s)	34 Freshwater Street, Beaumaris	Site(s) inspected	29-Jan-26
Local authority	Break O' Day	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
	Expected design area	sq m	1,000	V. high	Moderate		
	Density of disposal systems	/sq km	10	Mod.	Very low		
	Slope angle	degrees	4	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 E or W		V. high	Moderate	Low	Other factors lessen impact
	Frequency of strong winds	Common		High	Low		
	Wastewater volume	L/day	480	High	Low		
	SAR of septic tank effluent		1.7	High	Low		
	SAR of sullage		2.6	High	Moderate		
	Soil thickness	m	1.5	V. high	Very low		
	Depth to bedrock	m	1.5	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.	7	V. high	Very low		
	Adopted permeability	m/day	3	Mod.	Very high	Moderate	Other factors lessen impact
	Long Term Accept. Rate	L/day/sq m	20	High	Low		

Comments

The site has the capability to accept onsite 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	Spectura Studio	Assess. Date	11-Feb-26
		Ref. No.	
Assessed site(s)	34 Freshwater Street, Beaumaris	Site(s) inspected	29-Jan-26
Local authority	Break O' Day	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	30	High	High		
A	Phos. adsorp. capacity	kg/cub m	0.3	High	High		
	Annual rainfall excess	mm	-291	High	Very low		
	Min. depth to water table	m	5	High	Very low		
	Annual nutrient load	kg	2.5	High	Very low		
	G'water environ. value	Agric non-sensit		V. high	Low		
	Min. separation dist. required	m	10	High	Low		
	Risk to adjacent bores	Very low		V. high	Very low		
	Surf. water env. value	Agric sensit/dom drink		V. high	Moderate		
	Dist. to nearest surface water	m	400	V. high	Low		
	Dist. to nearest other feature	m	25	V. high	High	Moderate	Other factors lessen impact
	Risk of slope instability	Very low		V. high	Very low		
	Distance to landslip	m	1000	V. high	Very low		

Comments

There is low risk of environmental degredation associated with the proposed wastewater system. Planting out of the disposal area with suitable species is recommended to manage the nutrient load.

Demonstration of wastewater system being consistent with *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	Consistent with A1 (b) (i) Land application area will be located with a minimum separation distance of 3m from an upslope or level building. Consistent with A1 (b) (ii) Land application area will be located with a minimum separation distance of 8m 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.	Consistent with A2 (b) (i) Land application area will be located with a minimum separation distance of 43m 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.	Consistent with A3 (b) (i) Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary Consistent with A3 (b) (ii) Land application area will be located with a minimum separation distance of 8m of downslope property boundary.
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.	Consistent with P6.
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	Consistent with P7.

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SOLUTIONS

AS1547:2012 – Loading Certificate – Septic System Design

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

Site Address: 34 Freshwater Street, Beaumaris

System Capacity: 4 persons @ 120L/person/day

Summary of Design Criteria

DLR: 20L/m^2/day.

Absorption area: 24m^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 capacity of system and site area (provided loading changes within 25% of design)

Overloading consequences: Continued overloading may cause hydraulic failure of the absorption area and require upgrading/extension of the area. Risk considered acceptable due to visible signs of overloading and owner monitoring.

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. Risk considered acceptable.

Lack of maintenance / monitoring consequences: Issues of underloading/overloading and condition of the absorption area require monitoring and maintenance, if not completed system failure may result in unacceptable health and environmental risks. Septic tank de-sludging must also be monitored to prevent excessive sludge and scum accumulation. Monitoring and regulation by the property owner required to ensure compliance.

Other operational considerations: Owners/occupiers must be aware of the operational requirements and limitations of the system, including the following; the absorption area must not be subject to traffic by vehicles or heavy stock and should be fenced if required. The absorption area must be kept with adequate grass cover to assist in evapotranspiration of treated effluent in the absorption trenches. The septic tank must be desludged at least every 3 years, and any other infrastructure such as septic tank outlet filters must also be cleaned regularly (approx. every 6 months depending upon usage). Foreign materials such as rubbish and solid waste must be kept out of the system.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Spectura Studio *Owner name*
6 Sunrise Court *Address*
Scamander 7215 *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 Spectura Studio
Designer's project reference No. J12645
Address: 34 Freshwater Street
Lot No: 174927/17
Beaumaris 7215

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:

Dual-purpose septic tank with onsite absorption.

Design documents provided:

The following documents are provided with this Certificate –
Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Feb-26
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Feb-26
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Feb-26

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 - 34 Freshwater Street Beaumaris - Feb-26

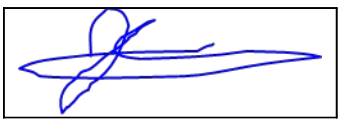
Geo-Environmental Assessment - 34 Freshwater Street Beaumaris - Feb-26

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		11/02/2026
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.

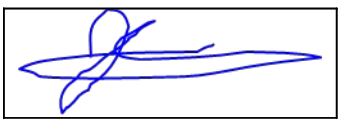
I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- [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		11/02/2026

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Spectura Studio *Owner /Agent*

6 Sunrise Court *Address*

Scamander 7215 *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: 34 Freshwater Street

Beaumaris 7215

Lot No:

Certificate of title No: 174927/17

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:

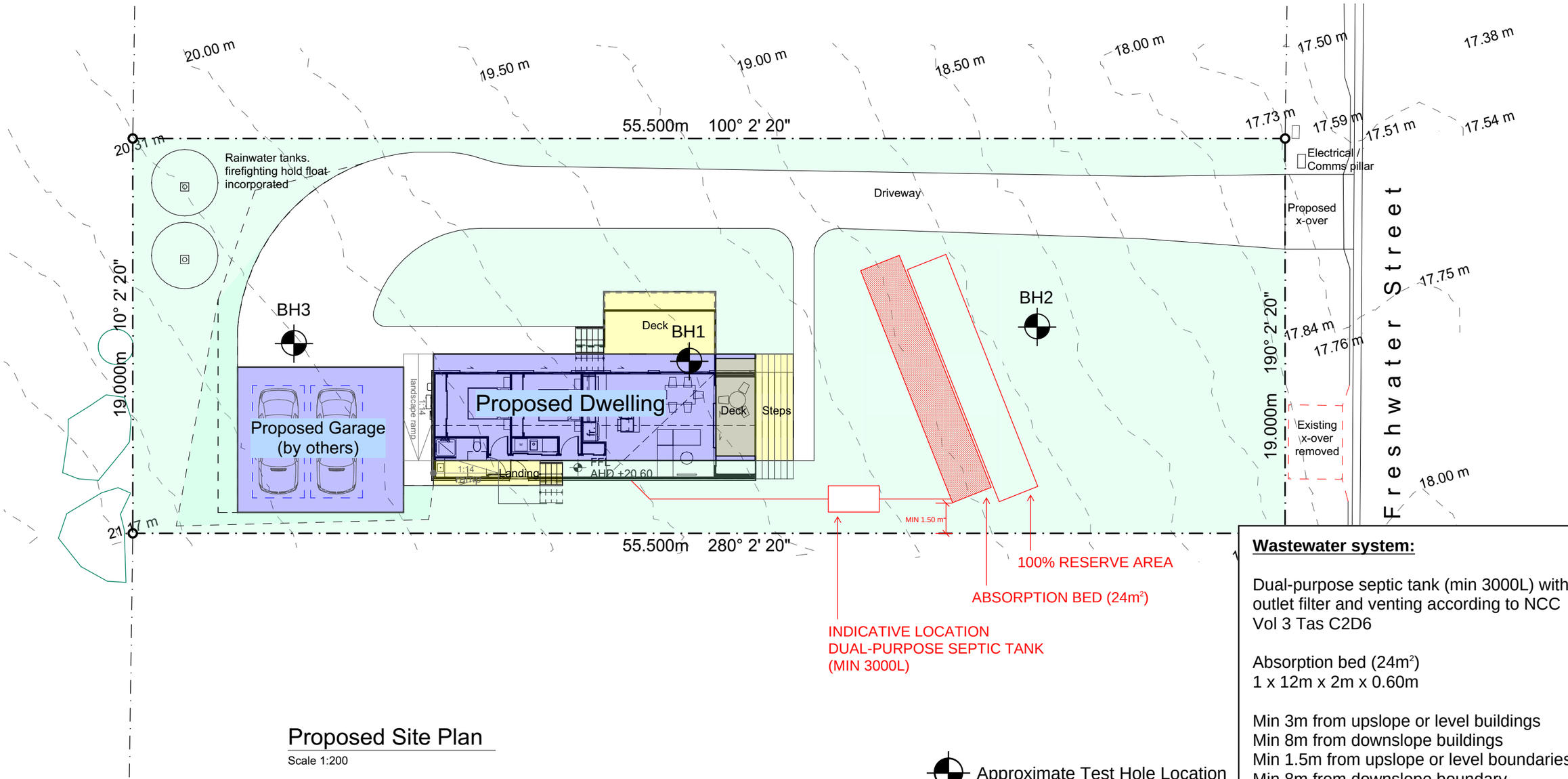
Signed:

Certificate No: J12645

Date: 11/02/2026

Scale 1:200
2 0 2 4 6 8 10 12 14 16 18 20m

SITE DETAILS
ADDRESS: 34 Freshwater St Beaumaris TAS 7215
LOT/DP: 174927/17
COUNCIL: Break O'Day Council
ZONING: Low Density Residential
SITE AREA: 1054m²



Proposed Site Plan
Scale 1:200

Approximate Test Hole Location

Wastewater system:

Dual-purpose septic tank (min 3000L) with outlet filter and venting according to NCC Vol 3 Tas C2D6

Absorption bed (24m²)
1 x 12m x 2m x 0.60m

Min 3m from upslope or level buildings
Min 8m from downslope buildings
Min 1.5m from upslope or level boundaries
Min 8m from downslope boundary
Min 43m from downslope surface water

Refer to GES report

Dr. John Paul Cumming
Building Services Designer-Hydraulic
CCC774A

11/02/2026

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

PROJECT NUMBER: T235

SPECTURA STUDIO
www.spectura.com.au
P: 0423 250 079
E: admin@spectura.com.au
QBCC:15158346
CBOS: 964058515

DRAWN BY: MP
CHECKED BY: MP
DATE: Tuesday, 20 January 2026
BDA&T: 6521

ISSUE LIST

Issue	Description	Date
SK1	Concept Development	18/12/2025
SK2	Concept Development	24/12/2025
SK3	Concept Finalisation	20/01/2026

PROJECT
Propoosed Dwelling & Garage

PROJECT ADDRESS:
174927/17
34 Freshwater St Beaumaris TAS 7215

CLIENT
TMH

A01

SHEET SIZE **A3**

Site Plan

SCALE: 1:200
PROJECT NUMBER: T235

N

NOTE:
ALL DIMENSIONS TO BE VERIFIED ONSITE BY BUILDING CONTRACTOR AND PHYSICALLY LOCATE ALL UNDERGROUND SERVICES AND THEIR LOCATION IN RELATION TO PROPOSED WORKS.
WRITTEN DIMENSIONS PREFERENCED OVER SCALED DIMENSIONS.
DISCREPENCIES TO BE REFERRED TO THE BUILDING DESIGNER BEFORE PROCEEDING.

Design notes:

1. Absorption trench dimensions of up to 20m long by 0.5m deep by 2m wide.
2. Base of trenches to be excavated level and smearing and compaction avoided.
3. Lower 400mm of bed to be filled with 20mm drainage aggregate and slotted 100mm distribution pipes packed into upper 100mm of aggregate
4. Final finished surface with sandy loam from on site to be 100 mm above natural surface to allow for settlement.
5. Construction on slopes up to 20% to allow trench depth range 650mm upslope edge to 450mm on down slope edge.
6. On slopes over 5% the sandy loam cover should be 75-100mm above natural with a toes no less than 500mm in length to avoid surface water accumulation (up slope ag drain also recommended to divert surface water flows).
7. 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
8. The slotted 90-100mm PVC distribution pipes must be slotted at “8 and 4 o’clock” when looking at the pipe section end-on, with the slots running level along the horizontal length of the pipe – please see figure 2 – or commercially available pre-slotted PVC pipe utilised
9. All works on site to comply with AS3500 and Tasmanian Plumbing code.

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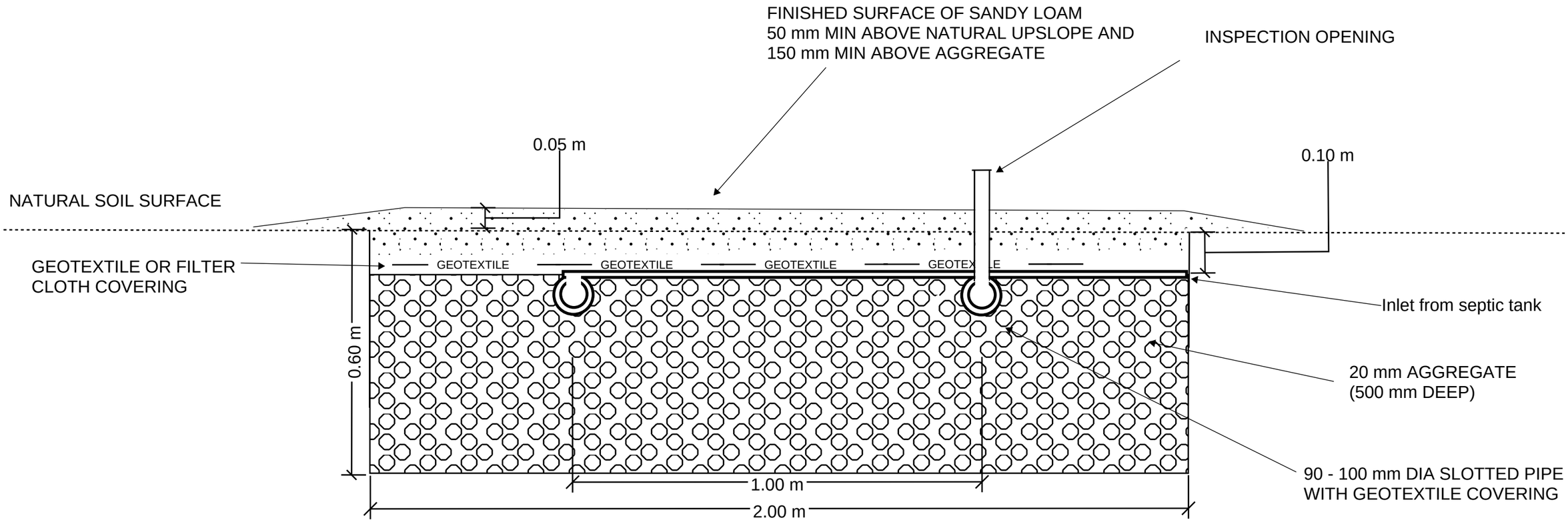

Do not scale from these drawings. Dimensions to take precedence over scale.		1:10 @ A3		Absorption Trench Design - Slotted Pipe

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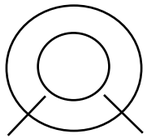
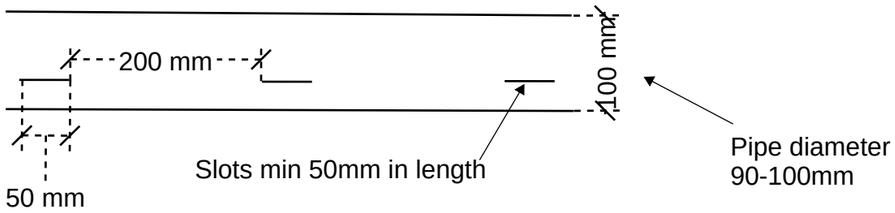
Cross section:

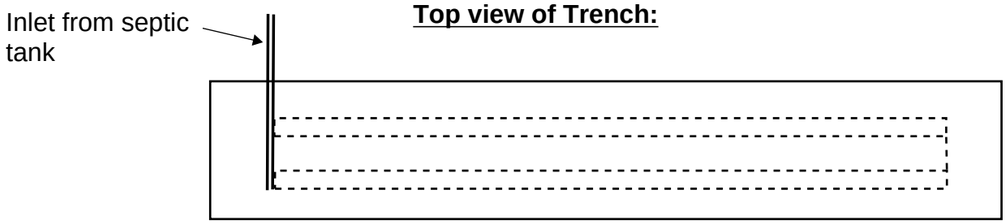
Slotted 90-100mm distribution pipe-slots at "8 and 4 O'clock "



Side View of Pipe:



Top view of Trench:



Slotted 90-100mm pvc pipe @ 1m spacing- connected with 90 degree corner joins- 500mm spacing from ends of trench

Do not scale from these drawings. Dimensions to take precedence over scale.				Absorption Trench Design- Slotted Pipe

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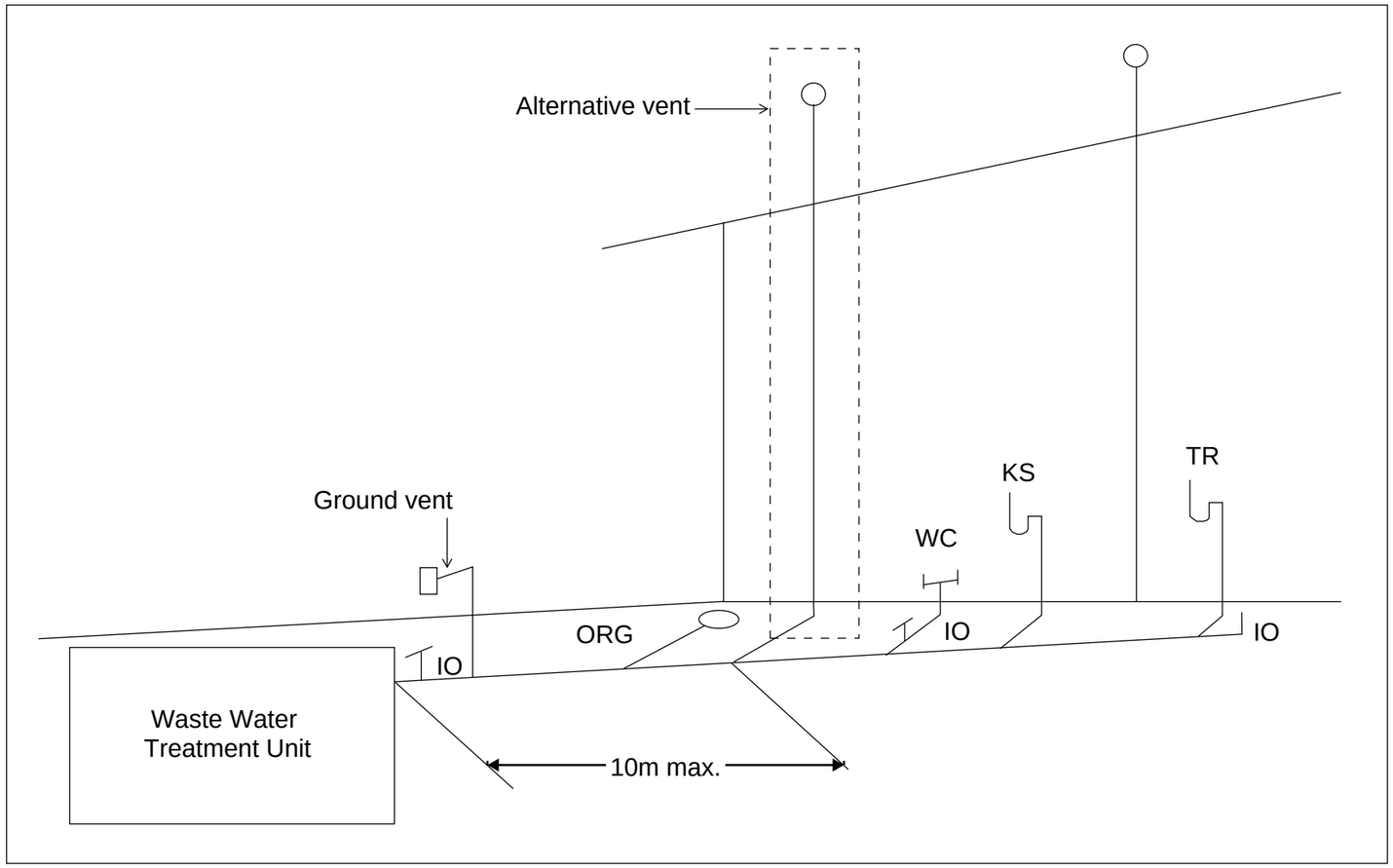

Tas Figure C2D6 Alternative Venting Arrangements

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