NOTICE OF PROPOSED DEVELOPMENT

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

SITE: 4 Wibar Street, Dodges Ferry

PROPOSED DEVELOPMENT:

ADDITIONS TO DWELLING (RETROSPECTIVE) & OUTBUILDING

The relevant plans and documents can be inspected at the Council Offices at 47 Cole Street, Sorell during normal office hours, or the plans may be viewed on Council's website at www.sorell.tas.gov.au until **Monday 28th July 2025.**

Any person may make representation in relation to the proposal by letter or electronic mail (sorell.council@sorell.tas.gov.au) addressed to the General Manager. Representations must be received no later than **Monday 28th July 2025.**

APPLICANT: **Island Life Designers**

APPLICATION NO: **DA 2025 / 00122 1**
DATE: **10 July 2025**

Part B: Please note that Part B of this form is publicly exhibited.

Full description of Proposal:	*Use:* Primary residence *Development:* Retrospective works to 1a dwelling/ New shed 10a *Large or complex proposals should be described in a letter or planning report.*
Design and construction cost of proposal:	$ 100,000.00

Is all, or some the work already constructed:	No: ☑ Yes: ☐

Location of proposed works:	Street address: 4 Wibar Street Suburb: Dodges Ferry TAS Postcode: 7173 Certificate of Title(s) Volume: 112152 Folio: 2

Current Use of Site	Residential

Current Owner/s:	Name(s) Philip Obod and Karen Obod

Is the Property on the Tasmanian Heritage Register?	No: ☑ Yes: ☐	*If yes, please provide written advice from Heritage Tasmania*
Is the proposal to be carried out in more than one stage?	No: ☑ Yes: ☐	*If yes, please clearly describe in plans*
Have any potentially contaminating uses been undertaken on the site?	No: ☑ Yes: ☐	*If yes, please complete the Additional Information for Non-Residential Use*
Is any vegetation proposed to be removed?	No: ☑ Yes: ☐	*If yes, please ensure plans clearly show area to be impacted*
Does the proposal involve land administered or owned by either the Crown or Council?	No: ☑ Yes: ☐	*If yes, please complete the Council or Crown land section on page 3*
If a new or upgraded vehicular crossing is required from Council to the front boundary please complete the Vehicular Crossing (and Associated Works) application form https://www.sorell.tas.gov.au/services/engineering/		

Part B continued: Please note that Part B of this form is publicly exhibited

Declarations and acknowledgements
• I/we confirm that the application does not contradict any easement, covenant or restriction specified in the Certificate of Title, Schedule of Easements or Part 5 Agreement for the land. • I/we consent to Council employees or consultants entering the site and have arranged permission and/or access for Council's representatives to enter the land at any time during normal business hours. • I/we authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation and have permission of the copyright owner for such copies. • I/we declare that, in accordance with s52(1) of the *Land Use Planning and Approvals Act 1993*, that I have notified the owner(s) of the intention to make this application. • I/we declare that the information in this application is true and correct. *Details of how the Council manages personal information and how you can request access or corrections to it is outlined in Council's Privacy Policy available on the Council website.*
• I/we acknowledge that the documentation submitted in support of my application will become a public record held by Council and may be reproduced by Council in both electronic and hard copy format in order to facilitate the assessment process, for display purposes during public exhibition, and to fulfil its statutory obligations. I further acknowledge that following determination of my application, Council will store documentation relating to my application in electronic format only.
• Where the General Manager's consent is also required under s.14 of the *Urban Drainage Act 2013*, by making this application I/we also apply for that consent.

Applicant Signature:	Signature: ..... Date: 07.02.2025

Crown or General Manager Land Owner Consent
If the land that is the subject of this application is owned or administered by either the Crown or Sorell Council, the consent of the relevant Minister or the Council General Manager whichever is applicable, must be included here. This consent should be completed and signed by either the General Manager, the Minister, or a delegate (as specified in s52 (1D-1G) of the *Land Use Planning and Approvals Act 1993*). Please note: • If General Manager consent if required, please first complete the General Manager consent application form available on our website www.sorell.tas.gov.au • If the application involves Crown land you will also need a letter of consent. • Any consent is for the purposes of making this application only and is not consent to undertaken work or take any other action with respect to the proposed use or development.
I _____ being responsible for the administration of land at _____ declare that I have given permission for the making of this application for _____

Sorell Council
Development Application: 5.2025.122.1 - Development Application - 4 Wibar Street, Dodges Ferry - P1.pdf
Plans Reference:P1
Date Received:9/05/2025

Signature of General Manager, Minister or Delegate:	Signature: ..... Date: .....

enviro•tech
CONSULTANTS
Geotechnical & Environmental Services

COASTAL EROSION HAZARD ASSESSMENT

PROPOSED EXTENSION AND SHED

4 WIBAR STREET - DODGES FERRY

Client: **Philip Obod**

Certificate of Title: **112152/2**

Investigation Date: **Monday, 3 March 2025**

Refer to this Report As

Enviro-Tech Consultants Pty. Ltd. 2025. Coastal Erosion Hazard Assessment Report for a Proposed Extension and shed, 4 Wibar Street - Dodges Ferry. Unpublished report for Philip Obod by Enviro-Tech Consultants Pty. Ltd., 03/03/2025.

Report Distribution

This report has been prepared by Enviro-Tech Consultants Pty. Ltd. for the use by parties involved in the proposed residential development of the property named above. It is to be used only to assist in managing any existing or potential erosion hazards relating to the Site and its development.

Permission is hereby given by Enviro-Tech Consultants Pty. Ltd., and the client, for this report to be copied and distributed to interested parties, but only if it is reproduced in colour, and only distributed in full. No responsibility is otherwise taken for the contents.

Reporting Declaration –Coastal Erosion

This Hazard Assessment Report includes a Geotechnical Site Investigation which has been prepared in accordance with AS1726 and the Tasmanian Planning Scheme, and the Director's Determination and reviewed by a geotechnical practitioner with experience and competence in the preparation of coastal vulnerability assessment reports (see Attachment 7 for signed declaration & verification).

Limitations of this report - GSI

In some cases, variations in actual Site conditions may exist between subsurface investigation boreholes. This report only applies to the tested parts of the Site, and if not specifically stated otherwise, results should not be interpreted beyond the tested areas.

The Site investigation is based on the observed and tested soil conditions relevant to the inspection date. Subsurface conditions may change laterally and vertically between test Sites, so discrepancies may occur between what is described in the reports and what is exposed by subsequent excavations. No responsibility is therefore accepted for any difference in what is reported, and actual Site and soil conditions for parts of the investigation Site which were not assessed at the time of inspection.

No responsibility is accepted for subsequent activities onsite by owners and/or climate variability including but not limited to placement of fill, uncontrolled earthworks, altered drainage conditions or changes in groundwater levels.

This report has been prepared based on provided plans detailed herein. Should there be any significant changes to these plans, then this report should not be used without further consultation. This report should not be applied to any project other than indicated herein.

Executive Summary

Enviro-Tech Consultants Pty. Ltd. (Envirotech) were contracted by Philip Obodon behalf of Island Life Designer to prepare a Coastal Erosion Assessment for a proposed dwelling located at 4 Wibar Street - Dodges Ferry which is herein defined as the Site.

The development comprises the development of a 10m by 14m shed as well as minor additions to the existing dwelling. The additions involve extension of the existing dwelling by 600mm on the costal side of the dwelling. A concrete block retaining wall will be built on the eastern side of the sand dune for the shed development. The retrospective extension is located within the high hazard overlay and the proposed shed is in the medium hazard overly.

Modelling has been conducted for planning purposes to assess whether the proposed building and works can achieve and maintain a tolerable risk from *a coastal erosion event in 2100 for the intended life of the use* without requiring any specific coastal erosion protection works.

The Site is located on a sand dune with elevations from 6.6 to 10.6 m AHD. The Site is set back approximately 25 m from the coast and in the future may be subject to coastal processes acting within Frederick Henry Bay.

The attached geotechnical site investigation (GSI) report shows that the underlying geology matches MRT mapping. Very loose to loose sand was found up to 2.5 m deep near the shed. Bearing capacities are low for a bored pier at 3.5 m depth, and skin friction will be ineffective due to settlement in the loose soils. Erosion assessment findings indicate the stable foundation zone is at surface near the shed and therefore shallow footings are acceptable at this location.

Coastline recession was assessed by measuring erosion rates in historical aerial images and comparing them with past sea levels. Future recession is projected for the Project Area based on these historical trends up to the building design life and 2100 scenarios.

Storm erosion potential is assessed separately from coastline recession, focusing on storm cycles around regular trends of coastline changes. These cycles can be seasonal or long-term, such as the southern oscillation. This assessment uses previous beach typology models and historical patterns of storm erosion and recovery in the Project Area.

The scenario shows no significant coastline progradation or erosion in the Project Area. Coastal erosion is quickly followed by accretion, with up to 10 meters of beach erosion and accretion observed since 2005. Storm erosion, or storm bite, is more significant than recession or progradation, with an estimated 35m³/m storm erosion demand from a 1-in-100-year event. Currently, the site has a calculated storm erosion demand of 17m³/m.

It is concluded that:

- The proposed building and work are not expected to cause or contribute to coastal erosion on the land or adjacent properties.
- By 2100, there is a low probability that the coastline will reach the building envelope. The buildings will remain within the stable foundation zone.
- Coastal protection works are not required at the Site.
- The site is not located on a mobile landform.
- A use within a high coastal erosion hazard is for a use which relies upon a coastal location to fulfil its purpose, considering the need for disabled access to infrastructure within the building.
- Building foundations are designated Class P.

1 Introduction

1.1 *Background*

Enviro-Tech Consultants Pty. Ltd. (Envirotech) were contracted by Philip Obodon behalf of Island Life Designer to prepare a Coastal Erosion Assessment for a proposed shed and existing building alterations located at 4 Wibar Street - Dodges Ferry which is herein defined as the Site (Map 1).

The development comprises an extension to the existing dwelling and a 10m by 14m shed (Map 2).

The Project Area encompasses the Site and a coastal escarpment on Frederick Henry Bay. This coastal erosion assessment is based on Site specific testing and local information applicable to the Project Area.

1.2 *Scope*

The scope of the Site investigation is to:

- Identify which overlay codes apply to the Site to determine development constraints including planning scheme exemptions, acceptable solutions, performance criteria as well as directors' determinations and building regulations specific to the identified hazards.
- Conduct erosion modelling and hazard analysis within the Project Area to assess directors' determination tolerable risks throughout the building design life and to 2100 to address planning code performance criteria.
- Prepare a desktop review of geological, geotechnical and geomorphologic information relevant to the Project Area and proposed development.
- Conduct an invasive Site investigation with soil bores, in-situ and laboratory geotechnical testing.
- Using available geographic information system (GIS) data, construct a geotechnical, hydrodynamic, and coastal process model for the Project Area to interpret present and future Site conditions and how the proposed development may influence and be influenced by future Site processes.
- Prepare a risk assessment for the proposed development in terms of coastal erosion hazards ensuring relevant building regulations, Directors Determination, and where applicable performance criteria are addressed; and
- Where applicable, provide recommendations on methods and design approach to adapt to Site hazards.

1.3 *Cadastral Title*

The land studied in this report is defined by the title 112152/2

1.4 *Project Area Setting*

The Project Area and Site location plans are presented in Map 2, Attachment 1. The Site is located on a sand dune with elevations from 6.6 to 10.6 m AHD. The Site is set back approximately 25 m from the coast and in the future may be subject to coastal processes acting within Frederick Henry Bay.

1.5 *Proposed Development*

Table 1 summarises the provided design documents from which this assessment is based with plans presented in Attachment 2 with the Site outlay presented in Attachment 2.

Table 1 Project Design Drawings

Drafted By	Project No	Date Generated	Pages
Island Life Designer	24-019	07/02/2025	01

The development comprises the development of a 10m by 14m shed as well as minor additions to the existing dwelling. The additions involve extension of the existing dwelling by 600mm on the costal side of the dwelling. A concrete block retaining wall will be built on the eastern side of the sand dune for the shed development.

2 Hazard Overlays

Planning code overlay mapping is presented in Attachment 1. The retrospective extension is located within the high hazard overlay and the proposed shed is in the medium hazard overly.

2.1 *Planning*

Planning code overlay descriptions, objectives and acceptable solutions are addressed in Attachment 3. Individual performance criteria are addressed in Attachment 6.

2.1.1 Coastal Erosion Assessment

Coastal erosion hazard overlay mapping are presented in Map 3 and coastal erosion planning codes are addressed in more detail in Attachment 3 with the following codes addressed:

- **C10.5.1 A1** There are no acceptable solutions to development involving use within a high coastal erosion hazard band, and therefore performance criteria are to be addressed:
  - **C10.5.1 P1.1** As the existing and proposed boat shed has a use that relies upon its coastal location to fulfil its purpose as a marine-related recreational facility.
  - **C10.5.1 P1.2** To address erosion hazards and tolerable risks from a coastal erosion event in 2100 and the potential need for hazard reduction or protection measures.
- **C10.6.1 A1** There are no acceptable solutions to building and works excluding coastal protection works within a coastal erosion hazard area, and therefore performance criteria are to be addressed:
  - **C10.6.1 P1.1** Addressed based on a risk matrix which assesses the identified hazards within the modelled timeframe and the proposed development building and works
  - **C10.6.1 P1.2** An assessment is to be made on whether the proposed building and works can achieve and maintain a tolerable risk from a coastal erosion event in 2100 for the intended life of the use without requiring any specific coastal erosion protection works.

2.2 *Building*

2.2.1 Coastal Erosion Hazard Overlay

An assessment is to be made on whether proposed work can achieve and maintain a tolerable risk from coastal erosion for the ***intended life of the building*** (2075) without requiring any specific coastal erosion protection measures.

The director's determination provisions are addressed which includes classification of the Site as Class P (problem Site which requires engineering design) and provision of an accompanying geotechnical site investigation written by a geotechnical practitioner[1].

3 Desktop Summary

3.1 *Topography*

The Site ranges in elevation from approximately 6.6 m AHD through to 10.6 m AHD and it is located on a windblown sand dune. The frontal dune elevation within the project area reaches 12.7 m AHD (Map 4).

Precise coastal erosion modelling is conducted within this assessment which is used to determine future coastal processes within the Project Area.

3.2 *Published Geology*

According to the 1:250,000 geological mapping by Mineral Resources Tasmania (MRT), as presented in Map 5, the geology of the Project Area comprises:

- Quaternary sand gravel and mud of alluvial, lacustrine and littoral origin

4 Site Investigation

4.1 *Geology*

Soil testing locations are presented in Map 6.

The Soil assessment, engineering logs, and soil core photos in the attached Geotechnical Site Investigation (GSI) report (Attachment 8) show that the underlying geology aligns with MRT mapping.

Very loose to loose SAND was encountered from surface to 1.0 m depth in BH01 and 1.3 m in BH02 Loose to medium dense SAND is found in both boreholes up to 2.5 m depth (BH02). A dynamic cone penetrating test (DCP) (PT03) has been conducted on the southern end of the proposed shed.

5 Erosion Hazard Assessment

5.1 *Assessment Methods*

The coastal erosion assessment is presented in Attachment 4.

Coastline recession is modelled for the Project Area based on coastline erosion relationships with sea level rise which is forward projected to the building design life and 2075 scenarios. Procedures include:

[1] Geotechnical practitioner: a person holding a building services license issued under the Occupational Licensing Act 2005 in the class of engineer-civil; a geotechnical engineer acting within their area of competence; or an engineering geologist acting within their area of competence.

5.1.1 Historical Aerial Images

Coastline recession was assessed by measuring erosion rates in historical aerial images and comparing them with past sea levels. Future recession is projected for the Project Area based on these historical trends up to the building design life and 2100 scenarios.

Observed coastline recession/progradation trends are based on aerial imagery dating back to 2005.

5.1.2 Storm Erosion

Storm erosion potential is assessed separately from coastline recession, focusing on storm cycles around regular trends of coastline changes. These cycles can be seasonal or long-term, such as the southern oscillation. This assessment uses previous beach typology models and historical patterns of storm erosion and recovery in the Project Area.

5.2 *Findings*

Coastal erosion projections for the Project Areas have been calculated based on the cross section profile location presented in Map 6 and Figure 1.

The scenario shows no significant coastline progradation or erosion in the Project Area. Coastal erosion is quickly followed by accretion, with up to 10 meters of beach erosion and accretion observed since 2005. Storm erosion, or storm bite, is more significant than recession or progradation, with an estimated 35m³/m storm erosion demand from a 1-in-100-year event. Currently, the site has a calculated storm erosion demand of 17m³/m.

The Site landform is vegetated and is therefore not considered actively mobile.

6 Risk Assessment

Qualitative risk evaluation criteria have been created to determine fundamental risks that may occur due to development in areas that are vulnerable to erosion or inundation hazards.

This qualitative risk assessment technique is based on AS/NZS ISO 31000:2009 and relies on descriptive or comparative characterisation of consequence, likelihood, and the level of risk comparative (rather than using absolute numerical measures).

A risk consequence/likelihood matrix has been selected which is consistent with AS/NZS ISO 31000:2009 guidelines.

Consequence/likelihood criteria have assisted in determining if any risk management measures are required at the Site to mitigate any potential hazards. Adopted consequence/likelihood criteria are presented in Attachment 5.

6.1 *Planning*

6.1.1 Erosion Assessment

Modelling has been conducted for planning purposes to assess whether the proposed building and works can achieve and maintain a tolerable risk* from ***a coastal erosion event in 2100 for the intended life of the use*** without requiring any specific coastal erosion protection works.

It is concluded that overall risks are low given the coastal progradation observed at the Site.

6.2 *Building*

6.2.1 Erosion Assessment

Directors Determination

Modelling has been conducted for building purposes (Directors Determination) to assess whether proposed work can achieve and maintain a tolerable risk to erosion hazards for the ***intended life of the building*** without requiring any specific coastal erosion protection measures.

Coastal erosion risks associated with the proposed development are tolerable, as the Site is projected to remain within the stable foundation zone given sea level rise modelling for 2075 (the building design life).

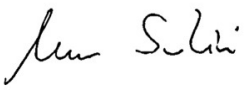
Recommendations (no design provided) Given the recommendations presented herein, erosion risks associated with the proposed development are tolerable, provided that the proposed development is constructed within the stable foundation zone given a modelled storm erosion event by 2075 (within the building design life).

Given the proposal is not exempt from planning, the risk assessment for the Site is limited by planning criteria for a 2100 erosion event alone rather than Directors Determination given erosion during the building design life. Findings from the planning assessment are therefore applicable for building.

7 Concluding Statement

It is concluded that:

- The proposed building and work are not expected to cause or contribute to coastal erosion on the land or adjacent properties.
- By 2100, there is a low probability that the coastline will reach the building envelope. The buildings will remain within the stable foundation zone.
- Coastal protection works are not required at the Site.
- The site is not located on a mobile landform.
- A use within a high coastal erosion hazard is for a use which relies upon a coastal location to fulfil its purpose, considering the need for disabled access to infrastructure within the building.
- Building foundations are designated Class P.



Marco Scalisi BSc Msc | Environmental & Engineering Geologist

Project manager

Enviro-Tech Consultants Pty. Ltd.

8 References

ABCB 2015. Landslide Hazards. Handbook. Non-Mandatory Document. Second Edition. Australian Building Code Board

AGS (2007e). The Australian Geoguides for Slope Management and Maintenance. Australian Geomechanics Vol 42 No 1 March 2007

AS1289 (2000). Australian Standard. Various methods as Prepared by Committee CE/9, Testing of Soils for Engineering Purposes. Approved on behalf of the Council of Standards Australia on 3 December 1999 and published on 28 February 2000.

AS1726 (2017). Australian Standard. Geotechnical Site Investigations. Approved on behalf of the Council of Standards Australia on 7 April 2017 and published on 2nd May 2017.

AS4133 (2019). Australian Standard. Prepared by Committee CE/9, Methods of testing rocks for engineering purposes - General requirements and list of methods. Approved on behalf of the Council of Standards Australia on July 2019 (Revision D) and published on 29th November 2019.

Ball, J. et al., 2019. Australian Rainfall and Runoff (AR&R): A guide to Flood Estimation. [Online] Available at: http://book.arr.org.au.s3-website-ap-southeast-2.amazonaws.com/ [Accessed 12 07 2022].

US Army Corps of Engineer (2006), Coastal Engineering Manual, Engineer Manual 1110-2- 1100, Washington D.C., Volumes 1-6.

Commonwealth of Australia (2006) "Climate Change Impact and Risk Management – A Guide for Business and Government". Available online.

Commonwealth of Australia, 2004: Emergency Management Australia – Emergency Risk Management Applications Guide Manual 5. Available from www.ema.gov.au.

Cromer, W.C., & Mazengarb, C., Building On Tasmanian Landscapes: Guidance for geotechnical reporting in Tasmania. Tasmanian Geological Survey Record UR2017/03 Document for Public Consultation. Version D3. March 2018

Dean R.G., and Dalrymple R.A., (2012). Coastal Processes with Engineering Applications. Cambridge University Press.

DPAC (2016). Mitigating natural hazards through land use planning and building control. Coastal Technical Report. December 2016.

Emergency Management Australia 2004 Emergency Management in Australia: Concepts And Principles.

M.J. Lacey, (2016) Coastal Inundation Mapping for Tasmania - Stage 4. Report to the Department of Premier and Cabinet by University of Tasmania

Mariani, A, Shand, T D, Carley, J T, Goodwin, I D, Splinter, K, Davey, E K, Flocard, F and Turner, I L, 2012, Generic Design Coastal Erosion Volumes and Setbacks for Australia, Technical Report for ACE-CRC by Water Research Laboratory, University of New South Wales, Sydney, p.99.

McInnes KL, Monselesan D, O'Grady JG, Church JA and Xhang, X, 2016: Sea-Level Rise and Allowances for Tasmania based on the IPCC AR5, CSIRO Report 33 pp.

McInnes. K.L. and O'Grady, J., (2016) Tasmanian Extreme Sea Level Modelling Assessment, CSIRO Report 20 pp

Nielsen (2012) Coastal and Estuarine Processes. Advanced series on ocean engineering – Volume 29. World Scientific. B & Jo Enterprise Pty. Ltd Singapore.

Stewart, I.E., Baynes, F.J. and Lee, I.K. (2002) "The RTA Guide to Slope Risk Analysis Version 3.1" Australian Geomechanics Vol 37 No 2 May pp115 – 147.

Attachment 1 Maps

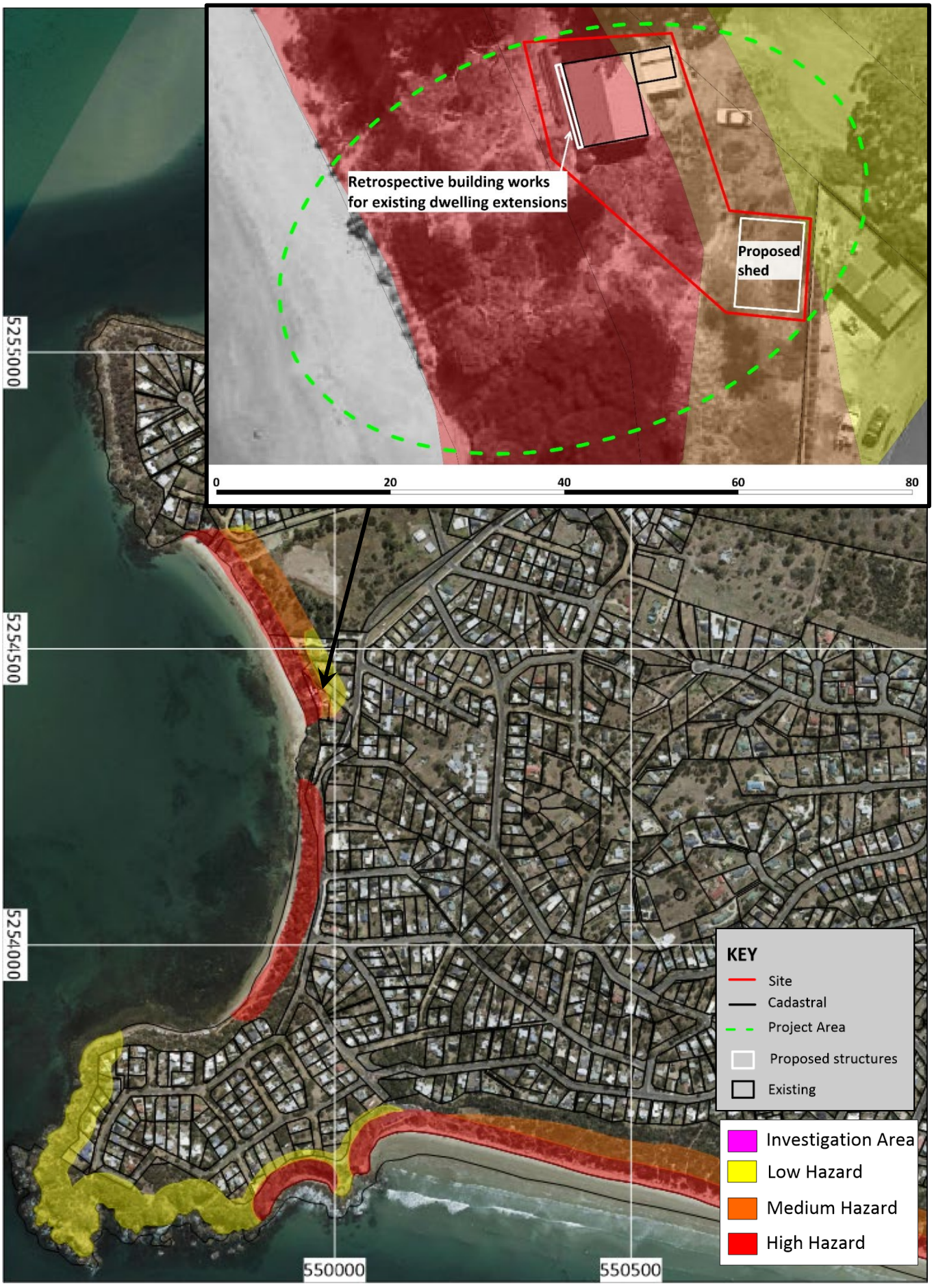
Map 1

Map 1 Site regional setting (The LIST)

Map 2

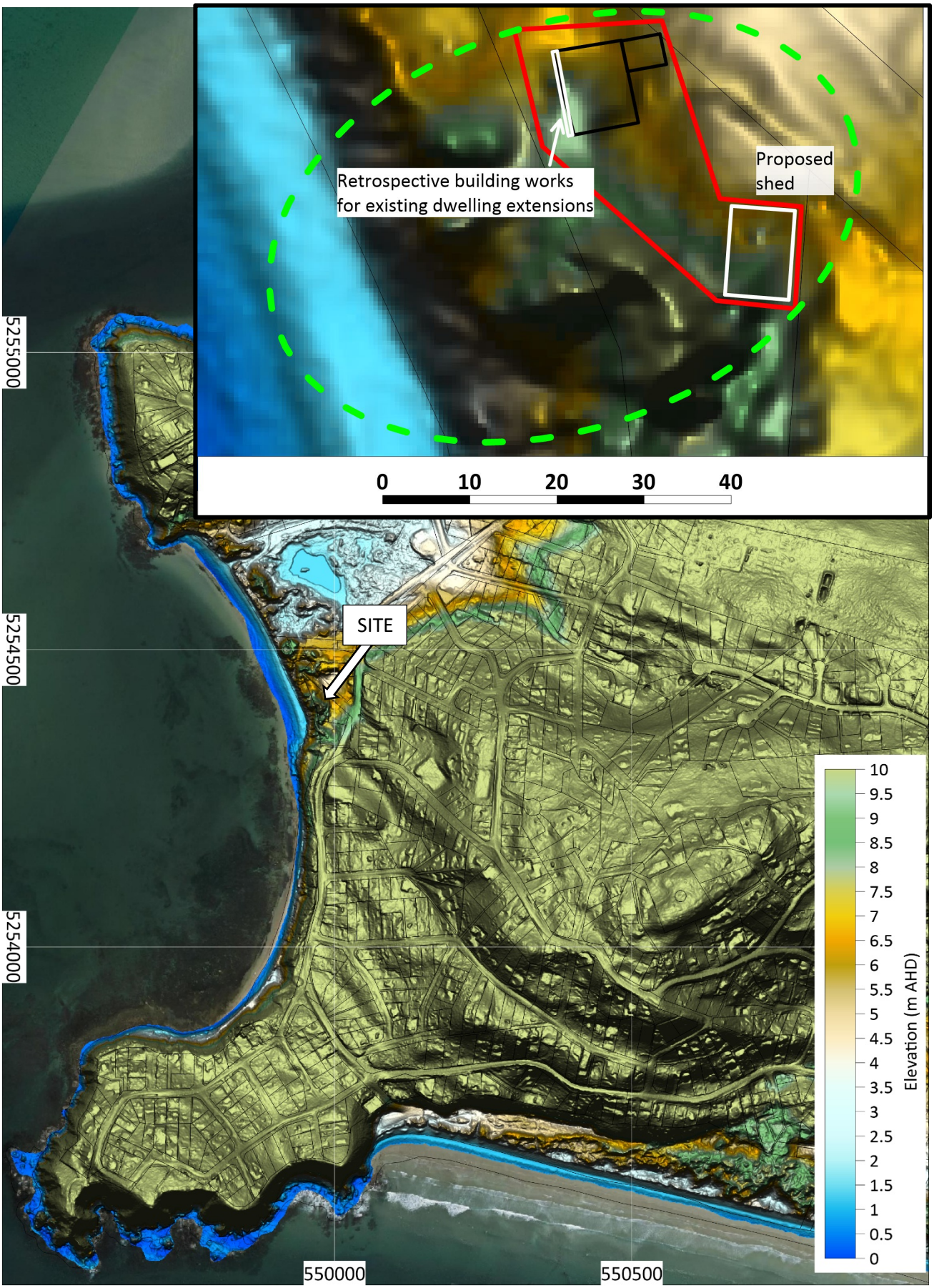
Map 2 Site and Project Area local setting

Map 3



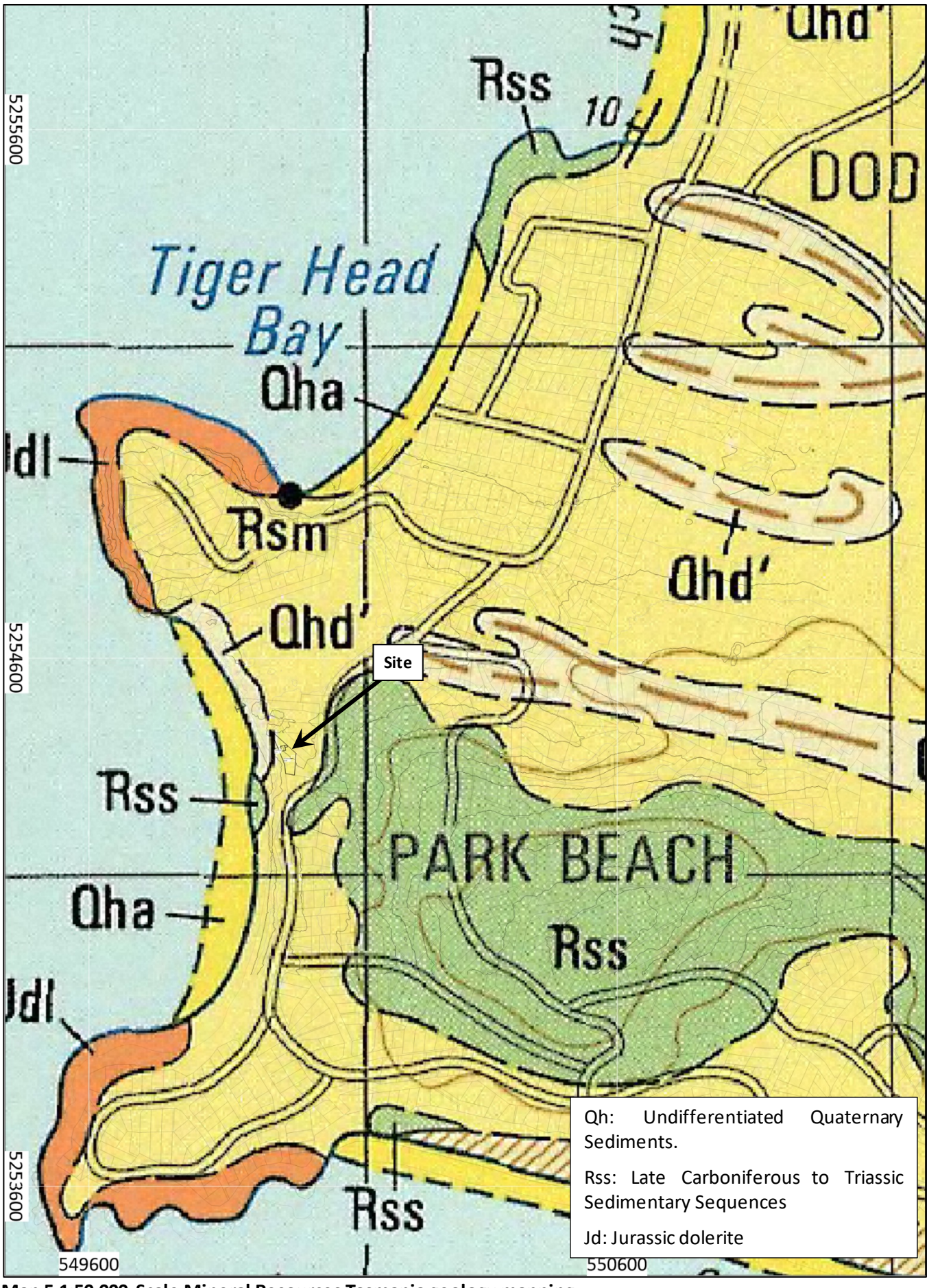
Map 3 Coastal erosion overlay

Map 4



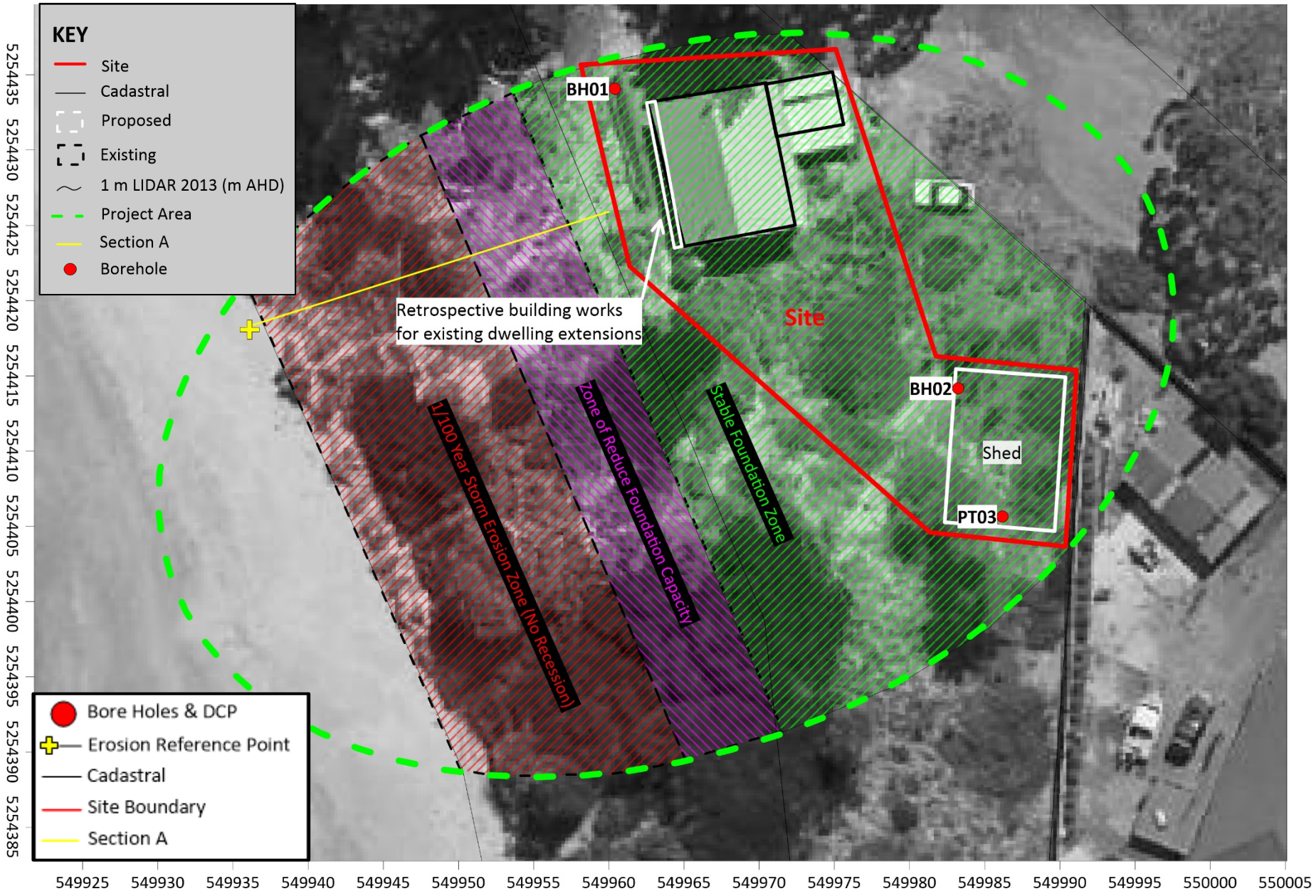
Map 4 Regional digital elevation model based on 2013 LIDAR

Map 5



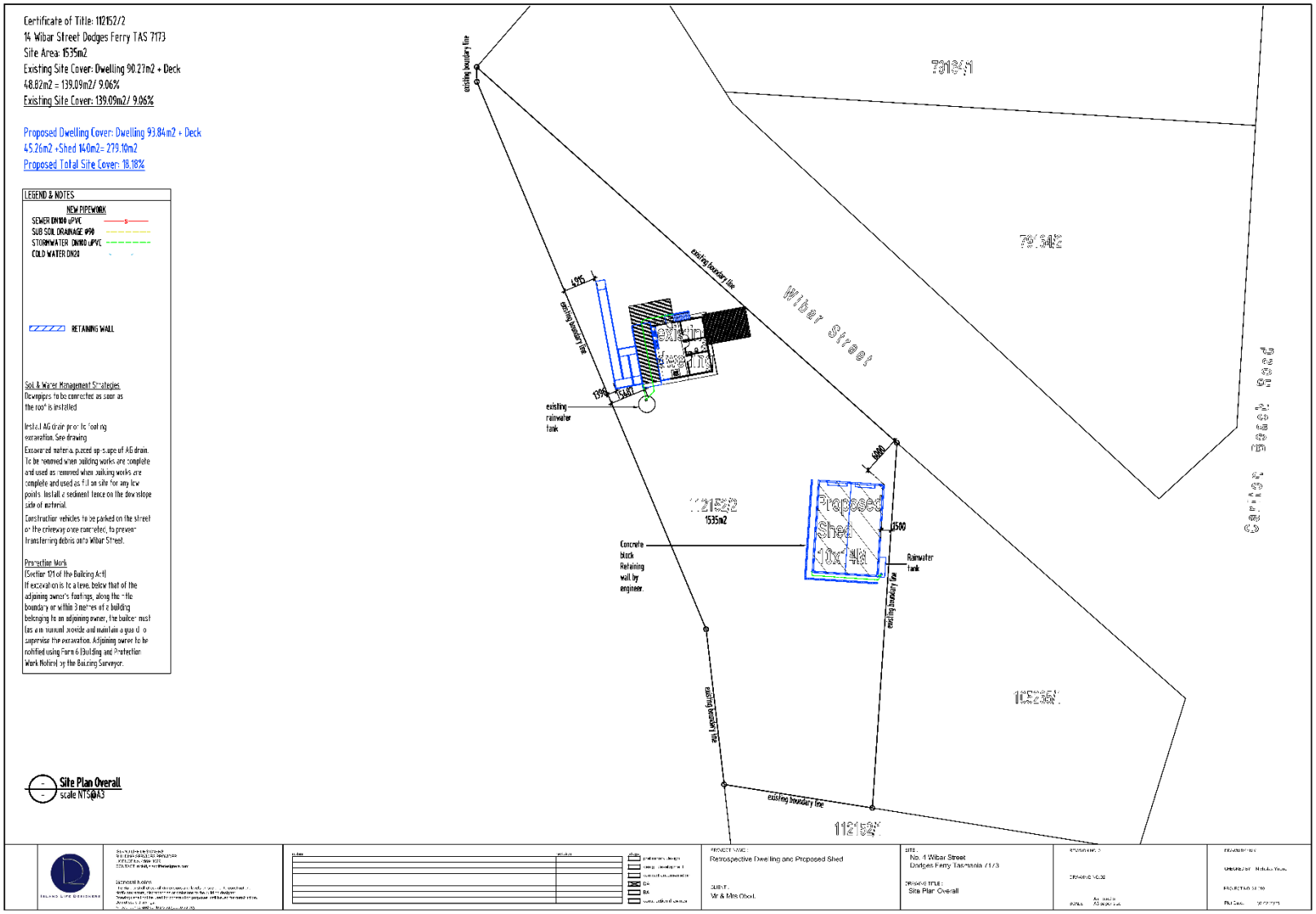
Map 5 1:50,000 Scale Mineral Resources Tasmania geology mapping

Map 6



Map 6 Soil testing locations

Attachment 2 Preliminary Design Concept Plans



Attachment 3 Planning and Building Regulations

Coastal Erosion Hazards

Tasmanian Planning Scheme C10.0

The proposed building and works fall within The LIST Coastal Erosion Hazard Overlay (medium and high hazard band) as presented in Map 3

Code Overlay Reporting Requirements

The proposed development reporting requirements are summarised in Table 2 with the following to be addressed:

- Directors Determination – Coastal Erosion Hazard Areas.
- Part 5 (Work in Hazardous Areas) of the Building Regulations 2016; Division 5 – Coastal Erosion
- State Planning Provisions (the Tasmanian Planning Scheme) C10 Coastal Erosion Hazard Code

The proposed development is not exempt from C10 Coastal Erosion Hazard Code on the basis that the proposal is located within a high coastal erosion hazard band.

Table 2 Coastal Erosion Hazard Reporting Requirements Framework

Council	Sorell
Planning scheme code	Tasmanian Planning Scheme
Subdivision	No
Critical use, hazardous use, or vulnerable use	No
Low or medium coastal erosion hazard band	Medium
Parts of the Site are located within a High coastal erosion hazard band	Yes
Located in a non-urban zone	No
Actively mobile landform?	No
Proposed coastal protection works	No
Exemption from code	No, on the basis that the proposed development is located within a high coastal erosion hazard band
Coastal erosion reporting requirements	Coastal Erosion Hazard Assessment & Geotechnical Site Investigation in accordance with directors determination and C10.0 Codes
Coastal erosion code to be addressed	C10.5.1 Use within a high coastal erosion hazard band C10.6.1 Buildings and works, excluding coastal protection works, within a coastal erosion hazard area
Site classification requirements	Class P
In a coastal erosion investigation area	No
Coastal erosion investigation area report required	No

C10.5 Use Standards

C10.5.1 Use within a high coastal erosion hazard band

C10.5.1 Objective

That use within a high coastal erosion hazard band:

- is reliant on a coastal location; and
- can achieve and maintain a tolerable risk from coastal erosion.

C10.5.1 Acceptable Solutions

There are no acceptable solutions to use within a high coastal erosion hazard band, and therefore performance criteria are to be addressed.

C10.5.1 Performance Criteria P1.1

Performance criteria C10.5.1 is addressed in Attachment 6 as a risk assessment with regards to the existing and proposed boat shed use that relies upon its coastal location to fulfil its purpose.

In this case, the criterion is fulfilled given the proposed development is:

(f) for a marine-related recreational facility

a) the need to access a specific resource in a coastal location;
b) the need to operate a marine farming shore facility;
c) the need to access infrastructure available in a coastal location;
d) the need to service a marine or coastal related activity;
e) provision of an essential utility or marine infrastructure;
f) provision of open space or for marine-related educational, research or recreational facilities;
g) any advice from a State authority, regulated entity or a council; and
h) the advice obtained in a coastal erosion hazard report.

C10.5.1 Performance Criteria P1.2

Performance criteria C10.5.1 P1.2 is to be assessed by addressing erosion hazards and tolerable risks from a coastal erosion event in 2100 and the potential need for hazard reduction or protection measures. Triggers relating to the proposed vulnerable use criteria are presented in Table 3.

Table 3 Performance criteria for critical, hazardous and vulnerable uses located within a coastal erosion hazard band

Acceptable Solution Code	Use Criteria (no acceptable solutions)	Performance Code	Performance Solution to be Addressed	Justification	Modelling Requirement[2]
C10.5.1 A1	Located within a high coastal erosion hazard band, the use must be for a use which relies upon a coastal location to fulfil its purpose.	P1.1	Yes	High hazard band	NA
C10.5.1 A1	Coastal erosion risk assessment reporting	P1.2	Yes	High hazard band	1% AEP in 2100

[2] Where building and works are proposed on a critical, hazardous, or vulnerable uses Site, the coastal erosion modelling is based on a coastal erosion event in 2100. In any case, a storm erosion event is considered a coastal erosion event which is to be considered on top of coastline recession by 2100 caused by sea level rise.

C10.6. Development Standards for Building and Works

C10.6.1 Buildings and Works, Excluding Coastal Protection Works, Within A Coastal Erosion Hazard Area

C10.6.1 Objective

The objective of Code C10.6.1 is to ensure that:

- building and works excluding coastal protection works within a coastal erosion hazard area, can achieve, and maintain a tolerable risk from coastal erosion; and
- buildings and works do not increase the risk from coastal erosion to adjacent land and public infrastructure.

C10.6.1 Acceptable Solutions

There are no acceptable solutions to building and works excluding coastal protection works within a coastal erosion hazard area, and therefore performance criteria are to be addressed.

C10.6.1 Performance Criteria

Performance criteria C10.6.1 is addressed based on a risk matrix which assesses the identified hazards within the modelled timeframe and the proposed development building and works (Attachment 6).

Coastal Erosion Risk Assessment

To comply with the determination and C10 performance codes, this report assesses whether the proposed work and use can achieve and maintain a ***tolerable risk***[3] from ***a coastal erosion event in 2100 for the intended life of the building*** without requiring any specific coastal erosion protection measures. In accordance with the determination and the Tasmanian Planning Scheme, this risk assessment has been prepared by a geotechnical practitioner[4] with experience and competence in the preparation of coastal erosion hazard reports. Coastal erosion processes considered within this report include an assessment of coastline recession based on 2100 sea levels as well as erosion from a single 1 in 100-year storm erosion event.

Directors Determination

Although a coastal erosion hazard assessment report may not be required for planning purposes, according to the director's determination, In determining an application for a Certificate of Likely Compliance, the building surveyor must:

(a) take into account the coastal erosion hazard report and any relevant coastal erosion management plan; and

(b) be satisfied that the proposed work will not cause or contribute to coastal erosion on the site or on adjacent land; and

3 Tolerable risk means the lowest level of likely risk from coastal erosion to secure the benefits of a use or development in a coastal erosion hazard area, and which can be managed through routine regulatory measures or by specific hazard management measures for the intended life of each use or development.

4 Geotechnical practitioner means any of the following: (a) an engineer-civil; (b) a geotechnical engineer licensed as an engineer-civil acting within their area of competence; (c) an engineering geologist with the qualifications and expertise specified in the Certificates by Qualified Persons for an Assessable Item Determination made by the Director of Building Control as amended or substituted from time to time, acting within their area of competence.

(c) be satisfied that the proposed work can achieve and maintain a tolerable risk for the intended life of the building without requiring any specific coastal erosion protection measures; and

(d) be satisfied that the proposed work will not be located on actively mobile landforms, except where the work relates to protection measures or remediation works to protect land, property or human life.

Attachment 4 Coastline Recession & Storm Erosion

Historical Recession Model

Assessment Method

An historical series of georeferenced aerial photographs and satellite imagery have been used in the analysis (Table 4). The margin of error of the image georeferencing is estimated to be in the order of 0.5 m.

Table 4 Details of aerial images used in the analysis

Photographic Measurements	Temporal Data
Photography Range (Years)	2005 to 2024
Number of Temporal Measurements	14

A relationship between sea level rise and coastline recession has been determined for the Project Area based on historical sea level rise curves (Church and White 2011) and sea level rise projections between 2010 and present for the local government area (McInnes et. al. 2016).

Given the Bruun relationship, a ratio of sea level rise vs horizontal recession is developed for the Site. Sea level rise projections adopted from local government area models are applied to the Bruun ratio to derive a coastline recession rate for the building design life.

Correlations are approximate due to interference from factors such as:

- Changing active erosion profile thickness,
- Underlying recession rates and
- Erosion/accretion interference from manmade structures such as sea walls, jetties or groynes etc.

All the above influences were observed at the Site which are considered in the model interpretation.

Findings

Findings from the assessment are charted in Figure 1 illustrating the coastline position (m) relative to sea levels (m AHD) for various temporal points.

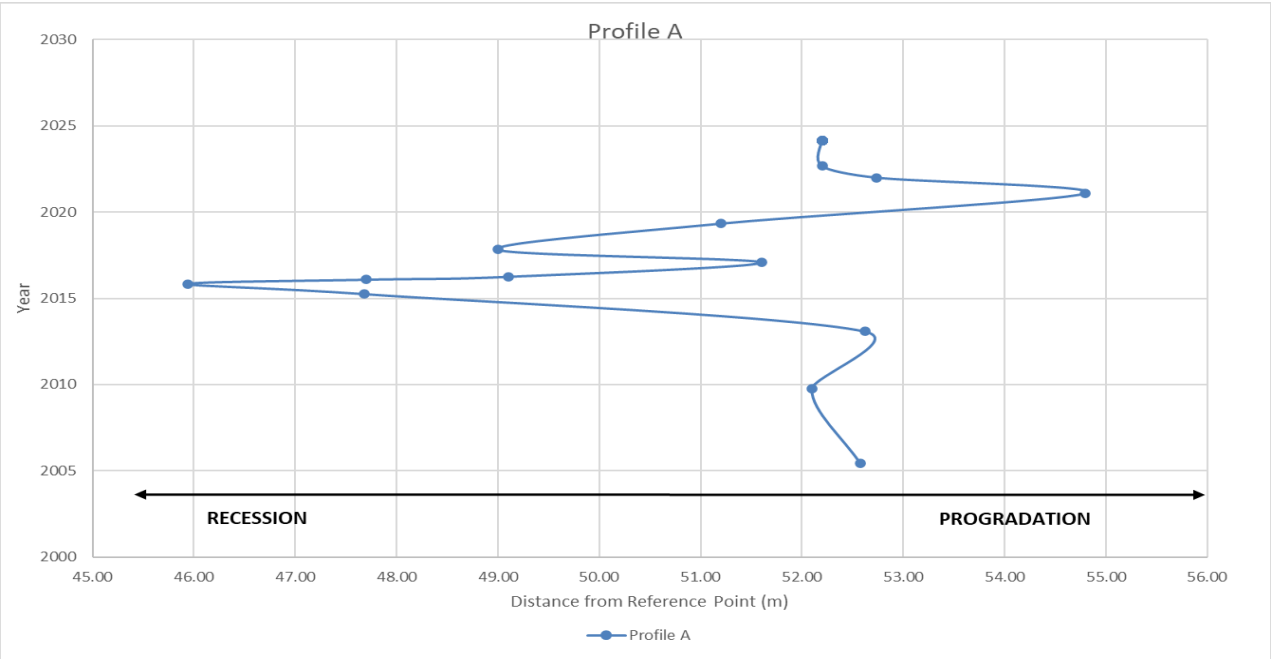


Figure 1 Measured coastline recession as distance of vegetation line relative to a fixed reference point

Historical aerial image analysis and erosion forecasting has identified:

ZERO projected coastline recession within the building design life and by 2100

Both sand ACCRETION and sand EROSION have been observed within the Project Area. There is strong erosion observed with up to 6m of recession which is followed up by rapid renourishment (sand accretion). The current coastline position is very similar to the coastline position in 2005. Up to 3 m of ACRETION has been observed beyond the current coastline position.

Storm Erosion Assessment

Assessment Method

The short-term deviation in coastline recession and progradation relative to the trendline illustrated Figure 1 are used to determine the storm erosion demand at the site.

This relationship is used to determine the total storm erosion demand cycles within the Project Area, which is determine by the sum deviation relative to the beach profile height to derive m^3/m storm erosion demand.

As the time series is less than what would ordinarily be required to determine design 1 in 100-year storm erosion demand or consecutive 1 in 100-year storm erosion demand for the Project Area, adjustments need to be made to the model.

Mariani et. al (2012) developed a broad model to assess storm erosion demand for various beach types around Australia, with 10 models developed for Tasmania. These models are used to derive 100-year average recurrence interval (ARI) values extrapolated from the measured the period.

Findings

It is estimated that the 100-year ARI storm erosion demand for the beach within the Project Area is 35 m3/m (Table 5). Making allowance for the current phase in the storm erosion/accretion cycle observed within the Project Area, the following is estimated:

100-year ARI storm erosion demand for the Project Area is calculated at 17 m^3/m

Table 5 Project Area storm erosion demand estimates

Storm Erosion Parameter	Units	Section A
Temporal Observation Range	Years	19
Profile Height Within Erosion Zone	m	3
Measured Deviation (m horizonal)	m	10
Observed Storm Erosion Demand	m^3/m	27
Beach Typology		5- Low Tide Terrace
Projected 100 Year ARI Storm Erosion Demand	m^3/m	36.5
Projected 2 x 100 Year ARI Storm Erosion Demand	m^3/m	51.6
Projected 100 Year ARI (Present Cycle)	**m^3/m**	17.0

Stable Foundation Zone Analysis

Process

A stable foundation zone analysis has been prepared for the Site based on methods outlined by Nielsen et. al., 1992. The theory takes into consideration for slope instability within the face of the sand deposits. Slope instability scenarios are identified which need to be considered in any building design:

- **Wave Runup Erosion Zone** - The beach escarpment is often left with a vertical profile following storm erosion events. The profile will eventually collapse to the angle of repose as the sand desiccates.
- **Top of swash zone** – Due to the very low dune profile within the Project Area, following the projected erosion of the frontal dune, storm erosion occurs within the top of swash zone only which is defined by a 1:10 gradient between sea level and 2.0 m above sea level at the time.

Findings - Zone of Slope Adjustment

The following horizontal erosion is projected within the "Zone of Slope Adjustment" following loss of the calculated storm erosion demand:

5.7 m horizontal from storm erosion demand

Findings – Stable Foundation Zone

The Site resides within the 1 in 100 year storm stable foundation zone for 2100, with the proposed shed and retrospective building works located 15 m and 6m respectively from the zone of reduced foundation capacity.

Shallow footings from the proposed shed will reside within the stable foundation zone. The retrospective structures are within the stable foundation zone.

Landform Mobility

In accordance with the LIST mapping, dune mobility classification is based on vegetation cover. Dune mobility at the Site has not been classified. Using the same system, the dune landform at the Site is identified as having 70 to 100% vegetation coverage and is therefore defined at being 'transitory' according to Mowling (2006). As the Site comprises greater than 10% vegetation, the Site is not classified as being mobile.

Coastal Erosion Protection Works

Coastal erosion protection works are not required at the Site.

Attachment 5 Risk Assessment Qualitative Terminology

DESCRIPTOR	QUALITATIVE MEASURES OF LIKELIHOOD
ALMOST CERTAIN	The event is expected to occur over the design life
LIKELY	The event will probably occur under adverse conditions over the design life
POSSIBLE	The event could occur under adverse conditions over the design life
UNLIKELY	The event might occur under very adverse circumstances over the design life.
RARE	The event is conceivable but only under exceptional circumstances over the design life.
BARELY CREDIBLE	The event is inconceivable or fanciful over the design life.

DESCRIPTOR	QUALITATIVE MEASURES OF CONSEQUENCES TO PROPERTY
CATASTROPHIC	Structure(s) completely destroyed and/or large-scale damage requiring major engineering works for stabilisation. Could cause at least one adjacent property major consequence damage.
MAJOR	Extensive damage to most of structure, and/or extending beyond site boundaries requiring significant stabilisation works. Could cause at least one adjacent property medium consequence damage.
MEDIUM	Moderate damage to some of structure, and/or significant part of site requiring large stabilisation works. Could cause at least one adjacent property minor consequence damage.
MINOR	Limited damage to part of structure, and/or part of site requiring some reinstatement stabilisation works.
INSIGNIFICANT	Little damage. (Note for high probability event (Almost Certain), this category may be subdivided at a notional boundary of 0.1%. See Risk Matrix.)

LIKELIHOOD	CONSEQUENCES TO PROPERTY				
	CATASTROPHIC	MAJOR	MEDIUM	MINOR	INSIGNIFICANT
ALMOST CERTAIN	VH	VH	VH	H	**L**
LIKELY	VH	VH	H	M	**L**
POSSIBLE	VH	H	M	M	**VL**
UNLIKELY	H	M	**L**	**L**	**VL**
RARE	M	**L**	**L**	**VL**	**VL**
BARELY CREDIBLE	**L**	**VL**	**VL**	**VL**	**VL**

RISK LEVEL		EXAMPLE IMPLICATIONS
VH	VERY HIGH RISK	Unacceptable without treatment. Extensive detailed investigation and research, planning and implementation of treatment options essential to reduce risk to Low; may be too expensive and not practical. Work likely to cost more than value of the property.
H	HIGH RISK	Unacceptable without treatment. Detailed investigation, planning and implementation of treatment options required to reduce risk to Low.
M	MODERATE RISK	May be tolerated in certain circumstances (subject to regulator's approval) but requires investigation, planning and implementation of treatment options to reduce the risk to Low. Treatment options to reduce to Low risk should be implemented as soon as practicable.
L	LOW RISK	Usually acceptable to regulators. Where treatment has been required to reduce the risk to this level, ongoing management is required.
VL	VERY LOW RISK	Acceptable. Manage by management procedures.

Attachment 6 Performance Criteria - Coastal Erosion Hazards

Tasmanian Planning Scheme Performance Criteria

C10.5.1 Use within a high coastal erosion hazard band P1.1

A use within a high coastal erosion hazard band must be for a use which relies upon a coastal location to fulfil its purpose, having regard to:	Relevance	Management Options	Risk Assessment Based on Treatment Recommendations			Further Assessment Required
			Consequence	Likelihood	Risk	
a) the need to access a specific resource in a coastal location;						
b) the need to operate a marine farming shore facility;						
c) the need to access infrastructure available in a coastal location;	The extension works is minor and needs to access the existing building infrastructure which is specific to this coastal location.					
d) the need to service a marine or coastal related activity;						
e) provision of an essential utility or marine infrastructure;						
f) provision of open space or for marine-related educational, research or recreational facilities;						
g) any advice from a State authority, regulated entity or a council; and						
h) the advice obtained in a coastal erosion hazard report.	The building resides within the 2100 stable foundation zone and the 2100 high hazard overlay overstates the hazard at this location.		Insignificant	Unlikely	Low	No

C10.5.1 Use within a high coastal erosion hazard band P1.2

A coastal erosion hazard report also demonstrates that:	Relevance	Management Options	Risk Assessment Based on Treatment Recommendations			Further Assessment Required
			Consequence	Likelihood	Risk	
a) any increase in the level of risk from coastal erosion does not require any specific hazard reduction or protection measures; or	There is no increase in the level of risk from the minor extension.		Insignificant	Unlikely	Low	No
b) the use can achieve and maintain a tolerable risk from a coastal erosion event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.	The assessment is based on a 2100 scenario. It is advised that the use can achieve and maintain a tolerable risk from a coastal erosion event in 2100 without requiring any specific hazard reduction or protection measures.		Insignificant	Unlikely	Low	No

C10.6.1 Buildings and works, excluding coastal protection works, within a coastal erosion hazard area - Performance Criteria P1.1

Buildings and works, excluding coastal protection works, within a coastal erosion hazard area must have a tolerable risk, having regard to:	Relevance	Management Options	Preliminary Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) whether any increase in the level of risk from coastal erosion requires any specific hazard reduction or protection measures;	No hazard reduction or protection measures are required.	Footings will be or already are in the stable foundation zone	Insignificant	Unlikely	Low	No
(b) any advice from a State authority, regulated entity or a council; and						
(c) the advice contained in a coastal erosion hazard report.						

C10.6.1 Buildings and works, excluding coastal protection works, within a coastal erosion hazard area - Performance Criteria P1.2

A coastal erosion hazard report demonstrates that:	Relevance	Management Options	Preliminary Risk Assessment (where relevant)			Further Assessment Required
			Consequence	Likelihood	Risk	
(a) the building and works:						
(i) do not cause or contribute to any coastal erosion on the site, on adjacent land or public infrastructure; and	Based on the provided plans, the proposed building and works will not cause or contribute to any coastal erosion on the site, on adjacent land or public infrastructure within the modelled timeframe.		Insignificant	Unlikely	Low	No
(ii) can achieve and maintain a tolerable risk from a coastal erosion event in 2100 for the intended life of the use without requiring any specific coastal erosion protection works;	Based on the provided plans, the proposed building and works can achieve and maintain a tolerable risk from a coastal erosion event in 2100 for the intended life of the use without requiring any specific coastal erosion protection works.		Insignificant	Unlikely	Low	No
(b) buildings and works are not located on actively mobile landforms, unless for engineering or remediation works to protect land, property and human life.	Based on the provided plans, the proposed building and works not located on actively mobile landforms.		Insignificant	Unlikely	Low	No

Attachment 7 Director's Determination Declaration

Coastal Erosion Hazard Reporting	Application
Geotechnical Site investigation undertaken consistent with AS 1726	This Geotechnical Site Investigation (AS1726) and has been written by a geotechnical practitioner with appropriate training and qualifications and over 14 year of experience in formulating coastal erosion models.
whether the work is likely to cause or contribute to coastal erosion on the land or on adjacent land;	Based on the provided plans, recommendations and the coastal erosion hazard modelling, it is barely credible that the proposed works will cause or contribute to coastal erosion on the land or on adjacent land;
whether work is proposed on actively mobile landforms;	The Site landform comprises historic sheet sand deposits which are vegetated and not considered a mobile landform.
whether the proposed work can achieve and maintain a *tolerable risk*[5] for the intended life of the building having regard to:	**Application/Management:**
nature, intensity and duration of the use	Risk modelling is based on fully occupied dwelling use. Risks are considered tolerable considering the nature, intensity and duration of the use based on a 50-year building design life (1% AEP modelling).
type, form and duration of the development	Development involves footings founded into the 2100 stable foundation zone to ensure the design type, form and duration conditions are met. The proposed development falls outside of 50 year building design life coastal erosion area modelled by Envirotech
the likely change in the risk across the intended life of the building	Given the graduated coastal processes in this scenario, there is ample opportunity to adapt to changes within the building design life
the ability to adapt to a change in the risk	The proposed building structure should allow for adaption to a change risk based on the building design life including modular deconstruction etc. Given a 2100 modelling, there is ample opportunity to adapt to changes within the building design life
The ability to maintain access to utilities and services	Access to services and utilities can be maintained.
the need for specific coastal erosion hazard reduction or protection measures on the site	Modelling is based on the absence of coastal erosion protection measures. With the proposed/recommended building design, coastal erosion hazard reduction or protection measures are not required at the Site.
the need for coastal erosion hazard reduction or protection measures beyond the boundary of the site; and	Modelling is based on the absence of coastal erosion protection measures. With the proposed/recommended building design coastal erosion hazard reduction or protection measures are not required beyond the boundary of the Site.
any coastal erosion management plan in place for the site and/or adjacent land.	No coastal erosion management plan is in place for the Site or the adjacent land.
hazardous chemical used, handled, generated, or stored on the site,	General household chemicals being stored are typically in low volumes and in sealed containers.
Details of the person who prepared or verified this report:	This coastal inundation hazard report has been prepared in accordance with methodology specified in the Director's Determination - Coastal Erosion Hazard Area (version 1.2) by a suitably qualified geotechnical practitioner with relevant qualifications, experience, and competence in the preparation of Coastal Erosion Hazard reports.
Qualifications (Certificates by Qualified Persons for an Assessable Item Determination)	Bachelor of Science with first class honours in geology
Expertise - Geo-technical reports	Kris Taylor has 14 years of experience in coastal erosion modelling with several reports externally reviewed by parties including the University of New South Wales Water Research Lab. Reports written include Crown Land pilot studies, several reports for councils, and over 300 costal erosion assessment reports for planning and building
Level of current indemnity insurance	Current indemnity insurance of $2,000,000 ($4,000,000) Underwriters at Lloyd's covers **soil and rock mechanics, erosion, coastal geomorphology, natural hazard, soil and rock testing, hydrology and environmental coastal inundation and erosion hazard assessments.**

Kris Taylor Signed_____

[5] Tolerable risk means the lowest level of likely risk from coastal erosion to secure the benefits of a use or development in a coastal erosion hazard area, and which can be managed through routine regulatory measures or by specific hazard management measures for the intended life of each use or development.

Attachment 8 Geotechnical Site Investigation

enviro •tech
CONSULTANTS
Geotechnical & Environmental Services

GEOTECHNICAL SITE INVESTIGATION

4 WIBAR STREET - DODGES FERRY

PROPOSED EXTENSION AND SHED

Client: Philip Obod

Certificate of Title: 112152/2

Investigation Date: 03/03/2025

Refer to this Report As

Enviro-Tech Consultants Pty. Ltd. 2025. Geotechnical Site Investigation Report for a Proposed Extension and shed, 4 Wibar Street - Dodges Ferry. Unpublished report for Philip Obod by Enviro-Tech Consultants Pty. Ltd., 03/03/2025.

Report Distribution

This report has been prepared by Enviro-Tech Consultants Pty. Ltd. (Envirotech) for the use by parties involved in the proposed development of the property named above.

Permission is hereby given by Envirotech and the client, for this report to be copied and distributed to interested parties, but only if it is reproduced in colour, and only distributed in full. No responsibility is otherwise taken for the contents.

Limitations of this report

In some cases, variations in actual Site conditions may exist between subsurface investigation boreholes. This report only applies to the tested parts of the Site at the Site of testing, and if not specifically stated otherwise, results should not be interpreted beyond the tested areas.

The Site investigation is based on the observed and tested soil conditions relevant to the inspection date and provided design plans (building footprints presented in Attachment A). Any site works which has been conducted which is not in line with the Site plans will not be assessed. Subsurface conditions may change laterally and vertically between test Sites, so discrepancies may occur between what is described in the reports and what is exposed by subsequent excavations. No responsibility is therefore accepted for any difference in what is reported, and actual Site and soil conditions for parts of the investigation Site which were not assessed at the time of inspection.

This report has been prepared based on provided plans detailed herein. Should there be any significant changes to these plans, then this report should not be used without further consultation which may include drilling new investigation holes to cover the revised building footprint. This report should not be applied to any project other than indicated herein.

No responsibility is accepted for subsequent works carried out which deviate from the Site plans provided or activities onsite or through climate variability including but not limited to placement of fill, uncontrolled earthworks, altered drainage conditions or changes in groundwater levels.

At the time of construction, if conditions exist which differ from those described in this report, it is recommended that the base of all footing excavations be inspected to ensure that the founding medium meets that requirement referenced herein or stipulated by an engineer before any footings are poured.

Investigation Summary

Site Classification

In accordance with AS2870 – 2011 and after thorough consideration of the known details pertaining to the proposed building and associated works (hereafter referred to as the Site), the geology, soil conditions, soil properties, and drainage characteristics of the Site have been classified as follows:

CLASS P based on the following problematic ground conditions identified at the site:

- Loose soil was identified at the Site at depths of up to 2.1 m in BH02; 3.2 m in PT03
- Low bearing capacity soil was encountered with allowable bearing capacities of less than 100 kPa to a depth of up to 1.4 m in BH02; 3 m in PT03.
- The proposed building is located within a coastal erosion hazard overlay and assumes a CLASS P in accordance with the Directors Determination - Coastal Erosion Hazards.

Notwithstanding the problematic soil conditions observed at the Site, ordinarily the soil would be classified as Class A.

Foundations

It is recommended that the proposed shed is constructed on a stiffened slab with beams. Suitable bearing capacity is unlikely to be achieved in bored piers by 3.0m and piers holes are likely to collapse before pouring given the loose nature of the soils.

Wind Load Classification

The AS 4055-2021 Wind loads for Housing classification is summarised.

Region:	A
Terrain category:	TC1
Shielding Classification:	NS
Topographic Classification:	T0
Wind Classification:	N3
Design Wind Gust Speed ($V_{h,u}$) m/s	50

I recommend that during construction, I and/or the design engineer are notified of any major variation in the foundation conditions as predicted in this report.

Kris Taylor, BSc (hons)

Environmental & Engineering Geologist

Site Investigation

The Site investigation is summarised in Table 1.

Table 1 Summary of Site Investigation

Client	**Philip Obod**
Project Address	4 Wibar Street - Dodges Ferry
Council	Sorell
Planning Scheme	Tasmanian Planning Scheme
Inundation, Erosion or Landslip Overlays	Medium and High Coastal Erosion Hazard Code
Proposed	Extension And shed
Investigation	Fieldwork was carried out by an Engineering Geologist on the 3/3/2025
Site Topography	The building site has a moderate slope of approximately 14% (8°) to the west
Site Drainage	The site receives overland flow runoff directly from the east.
Soil Profiling	Three investigation holes were excavated around the proposed extension and shed (Appendix A):
Investigation Depths	Boreholes and DCP profiling near the shed were to 2.6m and 3.5m respectively. Borehole logs and photos are presented in Appendix B & C.
Soil moisture and groundwater	All recovered soil at the site ranged from dry to moist. Groundwater was not encountered.
Geology	According to 1:250,000 Mineral Resources Tasmania geological mapping (accessed through The LIST), the geology comprises of: Quaternary Sand gravel and mud of alluvial, lacustrine and littoral origin.

Soil Profiles

The geology of the site has been documented and described according to Australian Standard AS1726 for Geotechnical Site Investigations, which includes the Unified Soil Classification System (USCS). Soil layers, and where applicable, bedrock layers, are summarized in Table 2.

Table 2 Soil Summary Table

#	Layer	Details	USCS	BH01	BH02	PT03
1	SAND	FILL: SAND trace gravel, trace silt, very pale brown, well sorted, medium grained sand	SW	0-0.3		
2	SAND	TOPSOIL: SAND trace silt/clay, grey, well sorted, VL-L	SW-SM	0.3-0.6		
3	SAND	SAND, very pale brown, well sorted, VL-L	SW	0.6-1	0-1.3 DS@0.5	
4	SAND	SAND trace silt/clay, light yellowish brown, well sorted, L-MD	SW-SM	1-2		
5	SAND	SAND trace silt, very pale brown, well sorted, L-MD	SW		1.3-2 DS@1.7	
6	SAND	INFERRED SAND, VL-MD	SW		2-2.6 INF	0-3.5 INF

Consistency[1]	**VS** Very soft; **S** Soft; **F** Firm; **St** Stiff; **Vst** Very Stiff; **H** Hard. Consistency values are based on soil strengths AT THE TIME OF TESTING and is subject to variability based on field moisture condition
Density[2]	**VL** Very loose; **L** Loose; **MD** Medium dense; **D** Dense; **VD** Very Dense
Rock Strength	**EL** Extremely Low; **VL** Very Low; **L** Low; M Medium; **H** High; **VH** Very High; **EH** Extremely High
PL	Point load test (lump)
DS	Disturbed sample
PV	Pocket vane shear test
FV	Downhole field vane shear test
U50	Undisturbed 48mm diameter core sample collected for laboratory testing.
REF	Borehole refusal
INF	DCP has continued through this layer and the geology has been inferred.

[1] Soil consistencies are derived from a combination of field index, DCP and shear vane readings.
[2] Soil density descriptions presented in engineering logs are derived from the DCP testing.

Recommendations

General

For Class P Sites, the designer should be a qualified engineer experienced in the design of footing systems for buildings.

Plumbing

Refer to hydraulic design drawings for detailed plumbing advice and requirements.

Refer to Table 3 to assess soil movement (Ys) around pipework for different depth ranges.

*Table 3 Millimetres soil movement (Ys) for determining plumbing requirements for various soil depths **

Building	Profiles	P*	E Ys >75	H2 Ys 60-75	H1 Ys 40-60	M Ys 20-40	S Ys 0-20	A Ys 0
Shed	BH02 PT03	Yes						0-3

* Depths in this table are based on surfaces at the time of testing and do not allow for the influence of any additional fill added to the soil profile unless the Iss calculation depth has been modified based on the proposed cut and fill (see 'Footing Minimum Target Depths'). Where additional fill is proposed (and not indicated in the attached plans) Enviro-Tech are to be advised of final FFL's so the Site classification can be recalculated according to the specific fill reactivity and thickness used in the design.

LOOSE Soil Management

To reduce the risk of pipe breakage from machinery, the base of service trenches should be compacted before laying pipework. Backfill should also be compacted.

Class A and S

When pipework service trench basses fall within Class A to S depth range as shown in Table 3, and all plumbing recommendations herein have been implemented, the drainage system does not require any additional protection and should be installed following the AS/NZS 3500 series standards.

Building Pad Preparation

Any organic matter or other deleterious materials will need to be removed from the building envelope.

Topsoil containing grass roots must be removed from the area on which the footing will rest.

Unless otherwise stated in an engineering report, fill or loose, soft, low bearing capacity soil should either be removed from the building pad, or otherwise footings or piers should ideally be established to the base of this material to support the proposed structure.

Earthworks should be carried out in accordance with AS3798 'Earthworks for Residential and Commercial Developments'. Unsuitable materials in structural fill are listed in AS2870 Section 4.3.

The base of the excavation must be generally level but may slope not more than 1:40 to allow excavations to drain.

Pad Preparation - Compaction

It is recommended that any crushed rock, sand or granular soils across the building pad, filled areas and the base of the footing excavations are compacted with several passes with a medium weight plate compactor (80 kg).

Foundation Maintenance

Details on appropriate site and foundation maintenance practises from the CSIRO BTF 18 Foundation Maintenance and Footing Performance: A Homeowner's Guide are presented in Appendix E of this report.

Kris Taylor, BSc (hons)

Environmental & Engineering Geologist

Notes About Your Assessment

The Site classification provided and footing recommendations including foundation depths are assessed based on the subsurface profile conditions present at the time of fieldwork and may vary according to any subsequent *Site works* carried out. *Site works* may include changes to the existing soil profile by cutting more than 0.5 m and filling more than 0.4 to 0.8 m depending on the type of material and the design of the footing. All footings must be founded through fill *other than* sand not exceeding 0.4 m depth or sand not exceeding 0.8 m depth, or otherwise a Class P applies (AS2870 Clauses 2.5.2 and 2.5.3).

For reference, borehole investigation depths relative to natural soil surface levels are stated in borehole logs where applicable.

In some cases, variations in actual Site conditions may exist between subsurface investigation boreholes. At the time of construction, if conditions exist which differ from those described in this report, it is recommended that the base of all footing excavations be inspected to ensure that the founding medium meets the requirement referenced herein or stipulated by an engineer before any footings are poured.

The site classification assumes that the performance requirements as set out in Appendix B of AS 2870 are acceptable and that site foundation maintenance is carried out to avoid extreme wetting and drying.

It is the responsibility of the homeowner to ensure that the soil conditions are maintained and that abnormal moisture conditions do not develop around the building. The following are examples of poor practises that can result in abnormal soil conditions:

- The effect of trees being too close to a footing.
- Excessive or irregular watering of gardens adjacent to the building.
- Failure to maintain Site drainage.
- Failure to repair plumbing leaks.
- Loss of vegetation near the building.

The pages that make up the last six pages of this report are an integral part of this report. The notes contain advice and recommendations for all stakeholders in this project (i.e. the structural engineer, builder, owner, and future owners) and should be read and followed by all concerned.

References

AS 1289.6.3.2-2003 Soil strength and consolidation tests - Determination of the penetration resistance of a soil - 9 kg dynamic cone penetrometer test, Standards Australia, Sydney, Retrieved from SAI Global

AS 1289.7.1.1-2003 Methods of testing soils for engineering purposes Method 7.1.1: Soil reactivity tests—Determination of the shrinkage index of a soil—Shrink-swell index, Standards Australia, Sydney, Retrieved from SAI Global

AS 1726-2017, Geotechnical Site investigations, Standards Australia, Sydney, Retrieved from SAI Global

AS 2870-2011, Residential slabs and footings, Standards Australia, Sydney, Retrieved from SAI Global

AS4055 (2021). Australian Standard. Prepared by Committee BD-099, Wind Loads for Housing. Approved on behalf of the Council of Standards Australia on 1st June 2021 and published on 25th June 2021.

DPIPWE 2009. Dispersive Soils and their Management. Technical Reference Manual. Sustainable Land Use Department of Primary Industries Water and Environment.

Webster, S.L., Brown, R.W. and Porter, J.R. (1994) Force Projection Site Evaluation Using the Electric Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP). Technical Report No. GL-94-17, Air Force Civil Engineering Support Agency, US Air Force, Tyndall Air Force Base, FL.

Appendix A Mapping

Figure 1 Site Borehole Locations

Appendix B Borehole Logs

enviro·tech CONSULTANTS

Positioning: GDA94 & mAHD

ASSESSMENT: Geotechnical Site Investigation
STRUCTURE: Extension and shed
EASTING: 549960
NORTHING: 5254434
ACCURACY
HORIZ: 1m **VERT:** ~0.1m

Borehole : BH01
DATE TESTED: 3/03/2025
LOGGED BY: M. Scalisi
ELEVATION: 6.6

LOCATION: 4 Wibar Street - Dodges Ferry
CLIENT: Philip Obod

EQUIPMENT: 50mm Christie Post Driver
ESTIMATED GROUND m (m AHD):

DEPTH (m)	GRAPHIC	DESCRIPTION	DENSITY CONSIST. STRENGTH	LAYER	ELEVATION (mAHD)	MOISTURE Index	MOISTURE %	MOISTURE Well	SAMPLE	TEST	Cu (kPa)	UCS (kg/cm²)	(IS50 MPa) NSPT	NDCP/100mm
0.0	SW	FILL: SAND trace gravel, trace silt, very pale brown, well sorted, medium grained sand		1	6.4									
0.5	SW	TOPSOIL: SAND trace silt/clay, grey, well sorted	very loose to loose	2	6.2	Dry								
	SW	SAND, very pale brown, well sorted		3	6.0									
1.0	SW	SAND trace silt/clay, light yellowish brown, well sorted	loose to medium dense	4	5.8									
1.5					5.6	Moist								
2.0		Refusal in loose to medium dense, light yellowish brown SAND trace silt/clay End of borehole at 2m depth.			5.4									
					5.2									
					5.0									
					4.8									
					4.6									

GROUNDWATER: Not Encountered

TESTING:

PAGE 1 of 1

DS: disturbed sample; PV: pocket vane; PP: pocket penotrometer; FV: downhole field vane; U50: undisturbed 50mm sample; REF: DCP refusal

enviro·tech CONSULTANTS

Positioning: GDA94 & mAHD

ASSESSMENT: Geotechnical Site Investigation

STRUCTURE: Extension and shed

EASTING: 549983 **ACCURACY**

NORTHING: 5254414 **HORIZ:** 1m **VERT:** ~0.1m

Borehole : BH02

DATE TESTED: 3/03/2025

LOGGED BY: M. Scalisi

ELEVATION: 6.3

LOCATION: 4 Wibar Street - Dodges Ferry

CLIENT: Philip Obod

EQUIPMENT: 50mm Christie Post Driver

ESTIMATED GROUND m (m AHD):

DEPTH (m)	GRAPHIC	DESCRIPTION	DENSITY CONSIST. STRENGTH	LAYER	ELEVATION (mAHD)	MOISTURE Index	MOISTURE %	MOISTURE Well	SAMPLE	TEST	Cu (kPa)	UCS (kg/cm²)	(IS50 MPa) NSPT	NDCP/100mm
0.0					6.2									0.5
					6.0									0.5
0.5					5.8									0.5
	SW	SAND, very pale brown, well sorted	very loose to loose	3	5.6	Dry	1		DS					1.0
					5.4									1.0
1.0					5.2									1.0
					5.0									1.0
1.5	SW	SAND trace silt, very pale brown, well sorted	loose to medium dense	5	4.8	Slightly Moist	3		DS					1.8
					4.6									1.8
					4.4									1.8
2.0					4.2									1.8
	SW	INFERRED SAND		6	4.0									1.7
					3.8									2.6
2.5					3.6									2.5
														2.5
														2.5
														2.4
														2.4
														2.4
														2.3
														3.0
														3.0
														5.0
														5.0

Direct Push Sampler Ended at Target Depth at 2 m in loose to medium dense very pale brown SAND trace silt

GROUNDWATER: Not Encountered

PAGE 1 of 1

TESTING: Penetrometer: AS 1289.6.3.2

DCP Blows per 100mm. For penetrometer blows per 100mm <1, distance travelled per blow is measured and converted back to blows per 100mm

DS: disturbed sample; PV: pocket vane; PP: pocket penotrometer; FV(Ømm): downhole field vane; U50: undisturbed 50mm sample; REF: DCP refusal

enviro·tech CONSULTANTS

Positioning: GDA94 & mAHD

ASSESSMENT: Geotechnical Site Investigation

STRUCTURE: Extension and shed

EASTING: 549986 **ACCURACY**

NORTHING: 5254406 **HORIZ:** 1m **VERT:** ~0.1m

Point : PT03

DATE TESTED: 3/03/2025

LOGGED BY: M. Scalisi

ELEVATION: 8.5

LOCATION: 4 Wibar Street - Dodges Ferry

CLIENT: Philip Obod

EQUIPMENT: 50mm Christie Post Driver

ESTIMATED GROUND m (m AHD):

DEPTH (m)	GRAPHIC	DESCRIPTION	DENSITY CONSIST. STRENGTH	LAYER	ELEVATION (mAHD)	MOISTURE Index	MOISTURE %	MOISTURE Well	SAMPLE	TEST	Cu (kPa)	UCS (kg/cm²)	(IS50 MPa) NSPT	NDCP/100mm
0.0					8.4									0.5
					8.2									0.5
0.5					8.0									0.5
					7.8									1.0
					7.6									1.0
1.0					7.4									1.0
					7.2									1.9
1.5					7.0									1.9
	SW	INFERRED SAND	very loose to medium dense	6	6.8									2.7
					6.6									1.8
2.0					6.4									2.7
					6.2									4.0
2.5					6.0									4.0
					5.8									4.0
					5.6									3.0
3.0					5.4									0.9
					5.2									0.9
3.5		DCP Terminated at 3.5 m Depth			5.0									1.7
		DCP Profiling Only												1.6
														0.8
														1.6
														0.8
														1.6
														0.8
														1.5
														1.5
														0.8
														1.5
														2.2
														2.1
														2.1
														4.0
														2.1
														2.7
														2.7

GROUNDWATER: NA

PAGE 1 of 1

TESTING: Penetrometer: AS 1289.6.3.2

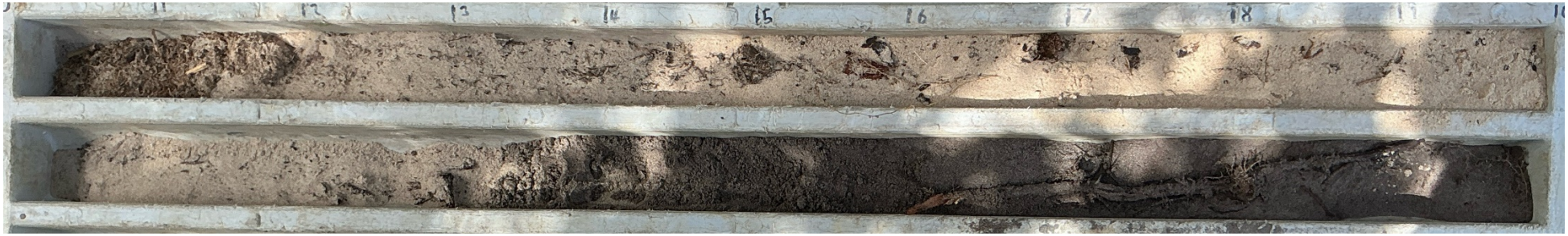
DCP Blows per 100mm. For penetrometer blows per 100mm <1, distance travelled per blow is measured and converted back to blows per 100mm

DS: disturbed sample; PV: pocket vane; PP: pocket penotrometer; FV(Ømm): downhole field vane; U50: undisturbed 50mm sample; REF: DCP refusal

Appendix C Core Photographs

BH01

BH02



*** 1 metre core tray length**

Appendix D Geotechnical Interpretation

Footing Minimum Target Depths

Footing design for the proposed structures are to consider the depths of limiting layers at the base of Class P soils where present. Where practical/allowable, thickened beams may be deepened through problematic soil layers according to engineering specifications (Table 4). Table 5 should be referred to where only 50kPa allowable bearing capacity is required.

Table 4 also presents a summary of the estimated soil depths and associated layers where less than 5mm of vertical soil movement can expected due to soil moisture fluctuations from normal seasonal wetting and drying cycles. Where 5mm tolerances are required, concentrated loads including but not limited to slab edge or internal beam or strip footings shall be supported directly on piers in accordance with minimum target layer depths presented in Table 4, with considerations given to required bearing capacities in accordance with Table 5.

Table 4 Soil characteristic surface movements and recommended footing minimum target depths

Footing design parameters	BH02	PT03
Iss Calculation Depth	0.00	0.00
Surface movement Ys (mm)	0	0
Soil reactivity class	A	A
Base of problem soil layer (m)*	1.4	3.0
Layer at base of problem soil*	5	6
Pier/Footing recommended minimum target depth (m)#	NA	NA
Pier/footing recommended target layer#	NA	NA

- No problem layers encountered

^ Calculations relative to surface of borehole at the time of investigation

~ Calculated based on revised soil profile depth/thickness following indicative cut and fill. Inferred fill reactivity indicated (Iss value) which is typically based on more reactive soils expected to be encountered within inferred cut.

* Base of problematic soil layer depth below top of borehole surface at the time of testing to achieve 100 kPa allowable bearing capacity or greater.

Target soil layer depth where Ys values from normal wetting and drying cycles are estimated at less than 5mm vertical movement

Soil and Rock Allowable Bearing Capacity

Soil allowable bearing capacity was calculated from correlations with DCP blow counts. Where high clay and silt content is observed in the soil, soil allowable bearing capacity is determined from undrained shear strengths using field vane correlated DCP values. Interpretive bearing capacity values are presented in Table 5. Bearing capacities are very low and to an considerable depth, and therefore consideration should be given to a rafted slab design rather than deepened piers.

Table 5 Soil allowable bearing capacities and problematic ground conditions.

Depth from (m)	Allowable Bearing Capacity (kPa)		
	BH01	BH02	PT03
0	**SANDY FILL***	30~	30~
0.1	**SANDY FILL^**	30~	30~
0.2	**SANDY FILL^**	40~	40~
0.3		40~	40~
0.4		50~	50~
0.5		50~	60~
0.6		50~	70~
0.7		50~	90~
0.8		60~	90~
0.9		70~	100~
1		80~	120
1.1		80~	150
1.2		80~	170
1.3		90~	160
1.4		**100***	110
1.5		**110**	70~
1.6		**110**	50~
1.7		**110**	60~
1.8		**100**	60~
1.9		**100**	60~
2		**100**	50~
2.1		**110~**	60~
2.2		**120**	50~
2.3		**160**	60~
2.4		**180**	60~
2.5		**210**	60~
2.6			60~
2.7			70~
2.8			80~
2.9			90~
3			**120***
3.1			**120**
3.2			**120~**
3.3			**100**
3.4			**110**

Correlations drawn from DCP and vane shear testing.
REF - Penetrometer Refusal
^ Footings to be founded through the FILL
~ Problematic soil layer attributed to loose, soft, or low allowable bearing capacity soil (<100 kPa)
*Soil layer expected at the base of problematic soil layers at test location (or at surface where problematic soils not encountered) to achieve 100 kPa allowable bearing capacity or greater.

Foundation Maintenance and Footing Performance:
A Homeowner's Guide

CSIRO

BTF 18
replaces
Information
Sheet 10/91

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

Soil Types

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870, the Residential Slab and Footing Code.

Causes of Movement

Settlement due to construction
There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

Erosion
All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

Saturation
This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume – particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

Seasonal swelling and shrinkage of soil
All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

Shear failure
This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.
- In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

GENERAL DEFINITIONS OF SITE CLASSES

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites with only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which can experience moderate ground movement from moisture changes
H	Highly reactive clay sites, which can experience high ground movement from moisture changes
E	Extremely reactive sites, which can experience extreme ground movement from moisture changes
A to P	Filled sites
P	Sites which include soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise

Tree root growth
Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

Effects of Uneven Soil Movement on Structures

Erosion and saturation
Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

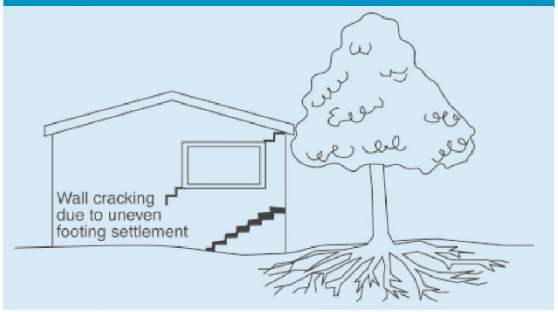
Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

Seasonal swelling/shrinkage in clay
Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.

Trees can cause shrinkage and damage



As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

Movement caused by tree roots
In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

Complications caused by the structure itself
Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

Effects on full masonry structures
Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures
Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation cause a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures
Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem.
Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870.

AS 2870 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/ Cure

Plumbing
Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage
In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

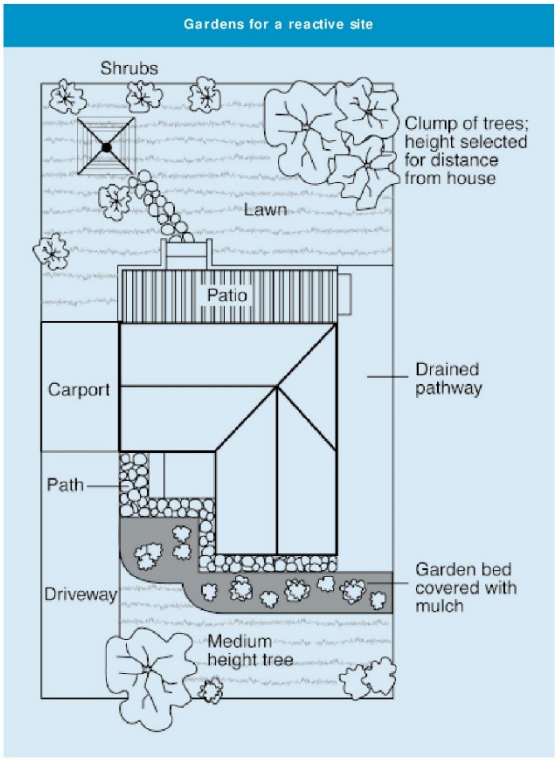
It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

Protection of the building perimeter
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving

CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

Description of typical damage and required repair	Approximate crack width limit (see Note 3)	Damage category
Hairline cracks	<0.1 mm	0
Fine cracks which do not need repair	<1 mm	1
Cracks noticeable but easily filled. Doors and windows stick slightly	<5 mm	2
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired	5–15 mm (or a number of cracks 3 mm or more in one group)	3
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted	15–25 mm but also depend on number of cracks	4



should extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

Condensation
In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden
The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

Existing trees
Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs
State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation
Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

This BTF was prepared by John Lewer FAIB, MIAMA, Partner, Construction Diagnosis.

Distributed by

CSIRO PUBLISHING PO Box 1139, Collingwood 3066, Australia

Freecall 1800 645 051 Tel (03) 9662 7666 Fax (03) 9662 7555 www.publish.csiro.au

Email: publishing.sales@csiro.au

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form 55

To: Philip Obod *Owner /Agent*

1 Wibar Street *Address*

Dodges Ferry 7173 *Suburb/postcode*

Qualified person details:

Qualified person: Kris Taylor

Address: 162 Macquarie Street

Hobart 7000

Phone No: 036224 9197

Fax No:

Licence No: NA

Email address: office@envirotechtas.com.au

Qualifications and Insurance details: Bachelor of Science with Honours in Geology. Loyd's Underwriters $2,000,000: Coastal geomorphology and coastal erosion hazard assessments

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

Speciality area of expertise: Geo-technical Reports

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

Details of work: Coastal Erosion Hazard Report

Address: 4 Wibar Street

Dodges Ferry 7173

Lot No: 2

Certificate of title No: 112152/2

The assessable item related to this certificate: Coastal Erosion Hazard Report prepared by a geotechnical practitioner with experience and competence in the preparation of coastal erosion hazard reports

(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: Geotechnical

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

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

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

OR

- ( ) a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:	Enviro-Tech Consultants Pty. Ltd. 2025. Coastal Erosion Hazard Assessment Report for a Proposed Extension and shed, 4 Wibar Street - Dodges Ferry. Unpublished report for Philip Obod by Enviro-Tech Consultants Pty. Ltd., 03/03/2025.
Relevant calculations:	
References:	Directors Determination - Coastal Erosion Hazard Areas Determination -Tasmanian Planning Scheme - State Planning Provisions 2023 - Part 5 (Work in Hazardous Areas) of the Building Regulations 2016; Division 5 - Coastal Erosion

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

- An assessment building or demolition work in coastal erosion hazard areas in accordance with the Directors Determination
- To ensure that use or development subject to risk from coastal erosion is appropriately located and managed (TPS)

Scope and/or Limitations

Where exempt from planning, includes an assessment of tolerable risks for the intended life of the building without requiring any specific coastal erosion protection measures.

Where not exempt from planning, includes an assessment of tolerable risk from a coastal erosion event in 2100 for the intended life of the building without requiring any specific coastal erosion protection measures.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:			3/03/2025

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form 55

To: Philip Obod *Owner /Agent*

1 Wibar Street *Address*

Dodges Ferry 7173 *Suburb/postcode*

Qualified person details:

Qualified person: Kris Taylor

Address: 162 Macquarie Street

Hobart 7000

Phone No: 036224 9197

Fax No:

Licence No: NA

Email address: office@envirotechtas.com.au

Qualifications and Insurance details: Bachelor of Science with Honours in Geology. Lloyd's Underwriters: soil and rock mechanics, soil and rock testing

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

Speciality area of expertise: Geo-technical Reports

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

Details of work: Geotechnical Site Investigation

Address: 4 Wibar Street

Dodges Ferry 7173

Lot No: 2

Certificate of title No: 112152/2

The assessable item related to this certificate: Geotechnical Site Investigation written in accordance with AS1726 by a geotechncial practitioner with appropriate experience, training and qualifications.*

(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: Geotechnical including landslide risk assessment in accordance with "Practice Note Guidelines for Landslide Risk Management 2007" published by the Australian Geomechanics Society.*

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

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

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

OR

- ( ) a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:	Enviro-Tech Consultants Pty. Ltd. 2025. Geotechnical Site Investigation for a Proposed Extension and shed, 4 Wibar Street - Dodges Ferry. Unpublished report for Philip Obod by Enviro-Tech Consultants Pty. Ltd., 03/03/2025.
Relevant calculations:	
References:	- AS1726-2017 Geotechnical Site Investigations

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

- An assessment of:
- Foundations for proposed building structures.*

Scope and/or Limitations

The Geotechnical Site Investigation applies to the Site and Project Area 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 which are not included within the provided plans.

***This report contains soil classification information prepared in accordance with AS2870 as well as AS2870 extracts which may be used as general guidance for plumbing design. The hydraulic designer is to use their own judgment in the application of this information and this report must be read in in conjunction with hydraulic plans for the proposed development.**

I certify the matters described in this certificate.

Qualified person:	*Signed:*	*Certificate No:*	*Date:*
			3/03/2025

Sorell Council

Development Application: 5.2025.122.1 - Development Application - 4 Wibar Street, Dodges Ferry - P1.pdf
Plans Reference:P1
Date Received:9/05/2025

GENERAL INFORMATION

Land Title Referene	112152/2
Building Class	1a
Property Zone	General Residential
Wind Classification	T.B.C.
Soil Classification (AS 2870)	T.B.C.
Climate Zone (NCC 3.12)	Zone 7
Alpine Area (900m above AHD) -	NA
BAL Rating (AS3959)	TBC
Heritage Building	NO
Flood Prone Area	YES
Coastal Ingress Area	YES
Coastal Erosion Area	YES
Corrosion Environment	Moderate

Sorell Council

Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf

Plans Reference:P2
Date Received:7/07/2025

Drawing Schedule:	
Sheet number	Sheet name
01	COVER PAGE
02	PROPOSED SITE PLAN OVERALL
03	PROPOSED SITE PLAN
04	PROPOSED SITE DRAINAGE PLAN
05	EXISTING FLOOR PLANS
06	UPPER GROUND FLOOR DEMOLITION PLAN
07	PROPOSED UPPER FLOOR PLAN
08	PROPOSED ROOF PLAN
09	PROPOSED UPPER FLOOR PLUMBING PLAN
10	PROPOSED ELEVATIONS 1-2-3
11	PROPOSED ELEVATION 4
12	PROPOSED SHED PLAN AND ELEVATIONS 1-2-3-4

OTHER CONSULTANTS

Structural Engineer	Prima Engineering - Assaad Taoum
Geological Report (Soil)	T.B.C
Energy Assessment	T.B.C
Waste Water Report	T.B.C.
Bushfire Assessment	T.B.C.
Civil Engineer	T.B.C.
Mechanical Engineer	NA
Electrical Engineer	NA
Site Survey	T.B.C.
Hydrologist Report	T.B.C
Contaminated Site Survey	NA

AREA SCHEDULE *(All measurements in m2)*

Site Plan	1535m2
Existing Residence	65.06m2
Residence (Upper Floor)	68.62m2
Residence (First Floor)	NA
Alfresco Area	NA
Verandah Area	NA
Detached Office / Study	NA
Stair cover	4.10m2
Decking Area	45.26m2
Roof covered Decking Area	24.14m2
Balcony (existing)	NA
Garage	26.00m2
Residential Shed / Outbuilding	140m2

Retrospective Dwelling & Shed

4 Wibar Street
Dodges Ferry TAS 7173

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision

stage
- [ ] preliminary design
- [ ] design development
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Cover Page

REVISION NO. 0

DRAWING NO.01

SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 07.02.2025

Certificate of Title: 112152/2
14 Wibar Street Dodges Ferry TAS 7173
Site Area: 1535m2
Existing Site Cover: Dwelling 90.27m2 + Deck 48.82m2 = 139.09m2/ 9.06%
Existing Site Cover: 139.09m2/ 9.06%

Proposed Dwelling Cover: Dwelling 93.84m2 + Deck 45.26m2 +Shed 140m2= 279.10m2
Proposed Total Site Cover: 18.18%

LEGEND & NOTES

NEW PIPEWORK
SEWER DN100 uPVC —S—
SUB SOIL DRAINAGE Ø90
STORMWATER DN100 uPVC
COLD WATER DN20

RETAINING WALL

Soil & Water Management Strategies
Downpipes to be connected as soon as the roof is installed.

Install AG drain prior to footing excavation. See drawing
Excavated material placed up-slope of AG drain. To be removed when building works are complete and used as removed when building works are complete and used as fill on site for any low points. Install a sediment fence on the downslope side of material.
Construction vehicles to be parked on the street or the driveway once concreted, to prevent transferring debris onto Wibar Street.

Protection Work
(Section 121 of the Building Act)
If excavation is to a level below that of the adjoining owner's footings, along the title boundary or within 3 metres of a building belonging to an adjoining owner, the builder must (as a miniumum) provide and maintain a guard to supervise the excavation. Adjoining owner to be notified using Form 6 (Building and Protection Work Notice) by the Building Surveyor.

existing boundary line
existing boundary line
existing boundary line
existing boundary line
existing boundary line
existing boundary line
79164/1
79164/2
Wibar Street
New Ø
Pipe
existing dwelling
5487
existing rainwater tank
New 5000L Rainwater Tank
New concrete driveway
6000
Proposed Shed 10x14M
1600
112152/2
1535m2
105265/1
Carlton Beach Road
112152/1

SORELL COUNCIL
Sorell Council
Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf
Plans Reference:P2
Date Received:7/07/2025

Site Plan Overall
scale NTS@A3

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
New concrete driveway/ new waste water system by others	A
Hydraulic Engineer plans	B

stage
- [ ] preliminary design
- [ ] design development
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Site Plan Overall

REVISION NO. B

DRAWING NO.02

SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 04.07.2025

Certificate of Title: 112152/2
14 Wibar Street Dodges Ferry TAS 7173
Site Area: 1535m2
Existing Site Cover: Dwelling 90.27m2 + Deck 48.82m2 = 139.09m2/ 9.06%
Existing Site Cover: 139.09m2/ 9.06%
Proposed Dwelling 94.62m2 + Deck 45.26m2 + Stair Cover 2.72m2 +Shed 140m2= 283m2
Proposed Total Site Cover: 18.43%

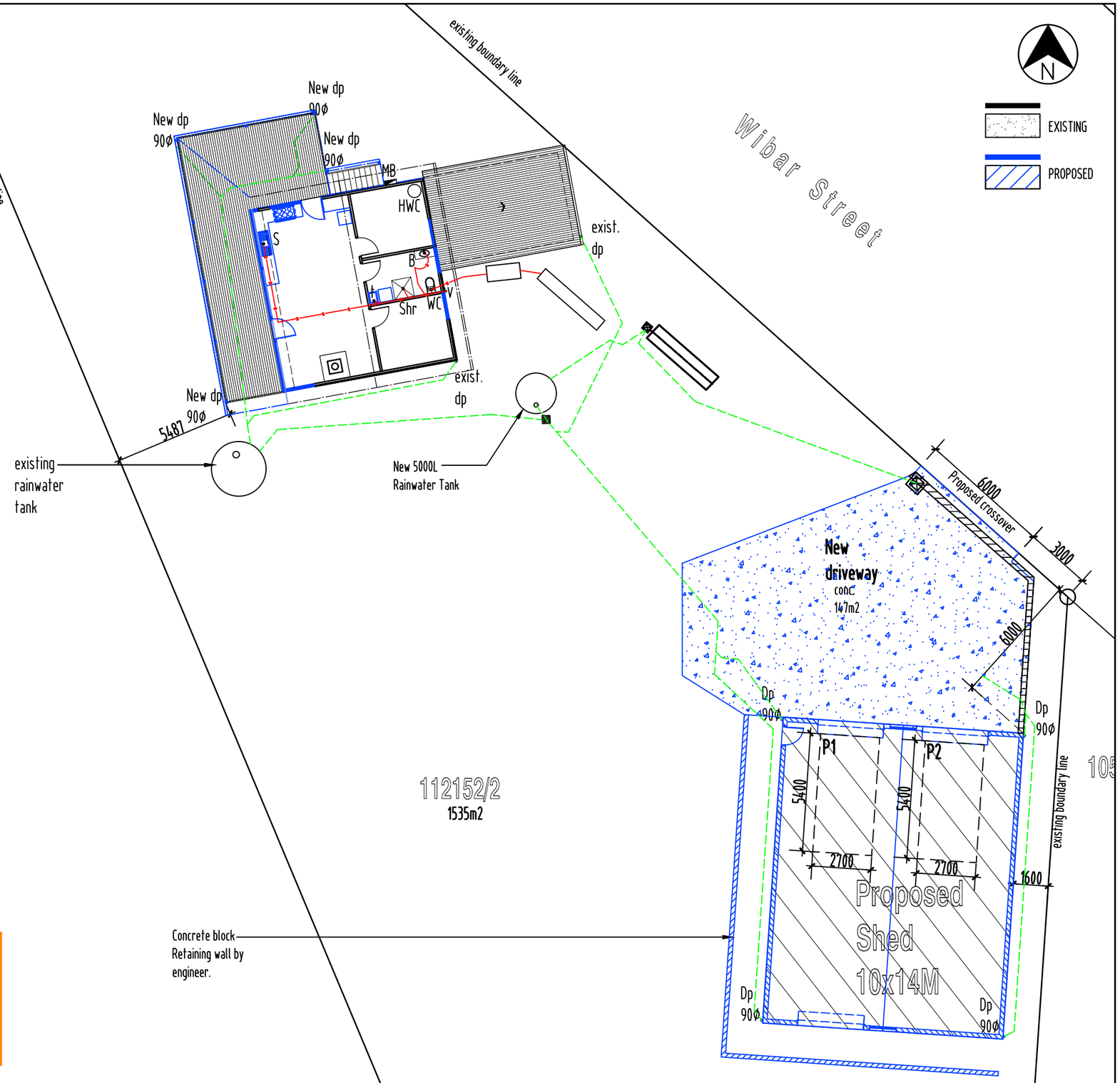
LEGEND & NOTES

NEW PIPEWORK
SEWER DN100 uPVC —S—
SUB SOIL DRAINAGE ø90
STORMWATER DN100 uPVC
COLD WATER DN20 —W—

Soil & Water Management Strategies
Downpipes to be connected as soon as the roof is installed.

Install AG drain prior to footing excavation. See drawing
Excavated material placed up-slope of AG drain. To be removed when building works are complete and used as removed when building works are complete and used as fill on site for any low points. Install a sediment fence on the downslope side of material.
Construction vehicles to be parked on the street or the driveway once concreted, to prevent transferring debris onto Wibar Street.

Protection Work
(Section 121 of the Building Act)
If excavation is to a level below that of the adjoining owner's footings, along the title boundary or within 3 metres of a building belonging to an adjoining owner, the builder must (as a miniumum) provide and maintain a guard to supervise the excavation. Adjoining owner to be notified using Form 6 (Building and Protection Work Notice) by the Building Surveyor.



Propsoed Site Plan
Scale 1:200 @A3

Sorell Council
Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf
Plans Reference:P2
Date Received:7/07/2025

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 4569943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
New concrete driveway/ new waste water system by others	A
Hydraulic Engineer plans	B

stage
- [ ] preliminary design
- [ ] design development
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME : Retrospective Dwelling and Proposed Shed
CLIENT : Mr & Mrs Obod.
SITE : No. 4 Wibar Street Dodges Ferry Tasmania 7173
DRAWING TITLE : Site Plan
REVISION NO. B
DRAWING NO.03
SCALE As noted on A3 paper size
DRAWN BY : N.Y.
CHECKED BY : Nicholas Young
PROJECT NO. 24-019
Plot Date: 04.07.2025

NEW PIPEWORK

SEWER DN100 uPVC

SUB SOIL DRAINAGE Ø90

STORMWATER DN100 uPVC

COLD WATER DN20

Wet areas shown hatched to comply with current AS3740:2021 & 2022 N.C.C. Refer to waterproofing details.

SYMBOLS

INSPECTION OPENING

FLOOR WASTE GULLY

OVERFLOW RELIEF GULLY

ISOLATION VALVE IN BOX

DROPPER/ RISER

WATER TAP

ABBREVIATIONS

V	VENT PIPE
IO	INSPECTION OPENING
FWG	FLOOR WASTE GULLY
IOS	INSPECTION OPENING SHAFT
ORG	ORVERFLOW RELIEF GULLY
IV	ISLOLATION VALVE IN BOX
D/R	DROPPER/ RISER
Bth	BATH
Shr	SHOWER
B	BASIN
S	SINK
Tr	TROUGH
WC	WATER CLOSET
FWG	FLOOR WASTE GULLY
HWC	HOT WATER CYLINDER
IV	ISOLATION VALVE
PLV	PRESSURE LIMITING VALVE
CWM	COLD WATER METER
GD	GRATED DRAIN
GP	GRATED PIT
RP	ROD POINT
IS	INSPECTION SHAFT

NOTE:
ALL WORKS MUST BE IN ACCORDANCE WITH THE CURRENT:
- N.C.C., AS3500.2 & AS3500.3
- WATER SERVICES ASSOCIATION OF AUSTALIA CODES (WSAA)
- LOCAL COUNCIL REQUIREMENTS
- TASWATER TECHNICAL STANDARDS
- ANY RELEVANT STANDARDS / MANUFACTURERS SPECIFICATIONS

REFER TO ROOF PLAN FOR ROOF CATCHMENT AREAS

Install inspection openings at major bends for stormwater and all low points of downpipes.

Provide surface drain to back of bulk excavation to drain levelled pad prior to commencing footing excavation.

Services

The heated water system must be designed and installed with Part B2 of NCC 2022 Volume Three - Plumbing Code of Australia.

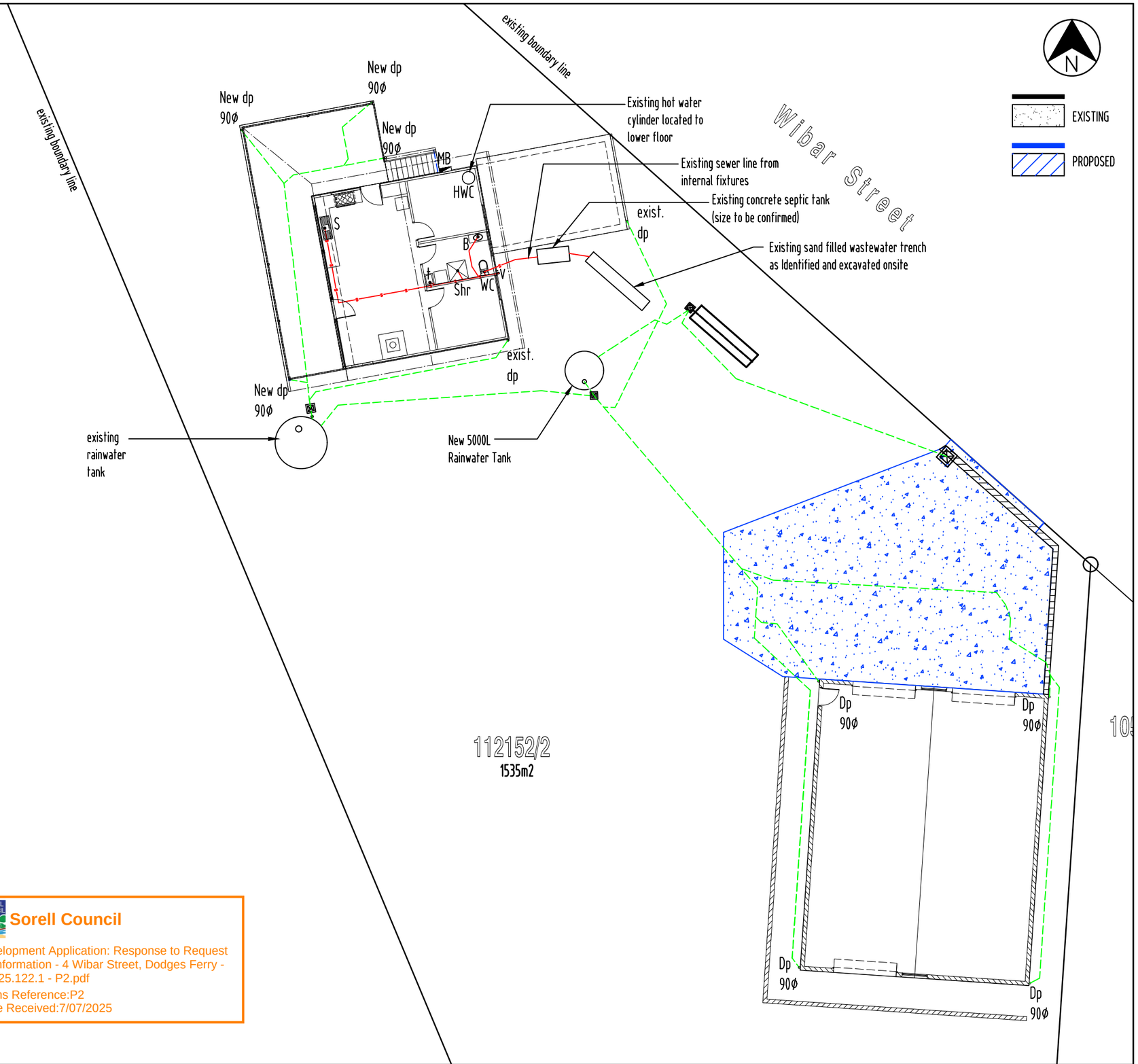
Thermal insulation for heated water piping must:
a) be protected against the effects of weather and sunlight; and
b) be able to withstand the temperatures within the piping; and
c) use thermal insulation in accordance with AS/NZS 4859.1:2018

Heated water piping that is not within a conditioned space must be thermally insulated as follows:
1. Internal piping
a) All flow and return internal piping that is -
i) within an unventilated wall space
ii) within an internal floor between storeys; or
iii) between ceiling insulation and a ceiling
Must have a minimum R-Value of 0.2 (ie 9mm of closed cell polymer insulation)

2. Piping located within a ventilated wall space, an enclosed building subfloor or a roof space
a) All flow and return piping
b) Cold water supply piping and Relief valve piping- within 500mm of the connection to central water heating system
Must have a minimum R-Value of 0.45 (ie 19mm of closed cell polymer insulation)

3. Piping located outside the building or in an unenclosed building sub-floor or roof space
a) All flow and return piping
b) Cold water supply piping and Relief valve piping- within 500mm of the connection to central water heating system
Must have a minimum R-Value of 0.6 (ie 25mm of closed cell polymer insulation)

Piping within an insulated timber framed wall, such as that passing through a wall stud, is considered to comply with the above insulation requirements.



Sorell Council

Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf

Plans Reference:P2

Date Received:7/07/2025

Proposed Site Drainage Plan

Scale 1:200 @A3

Refer to Hydraulic Engineers plans for further details

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 4569943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
New concrete driveway/ new waste water system by others	A
Hydraulic Engineer plans	B

stage
- [ ] preliminary design
- [ ] design development
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Site Plan Drainage

REVISION NO. B

DRAWING NO.04

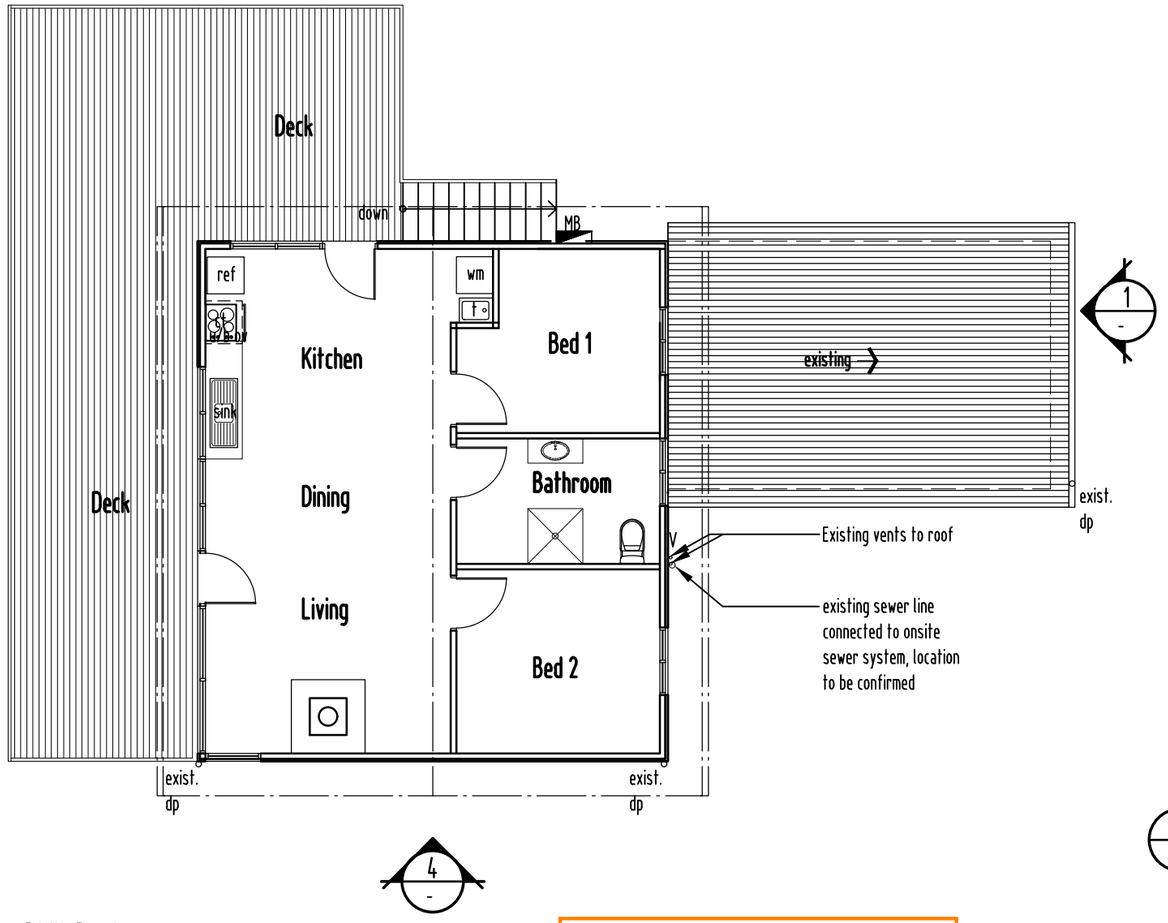
SCALE As noted on A3 paper size

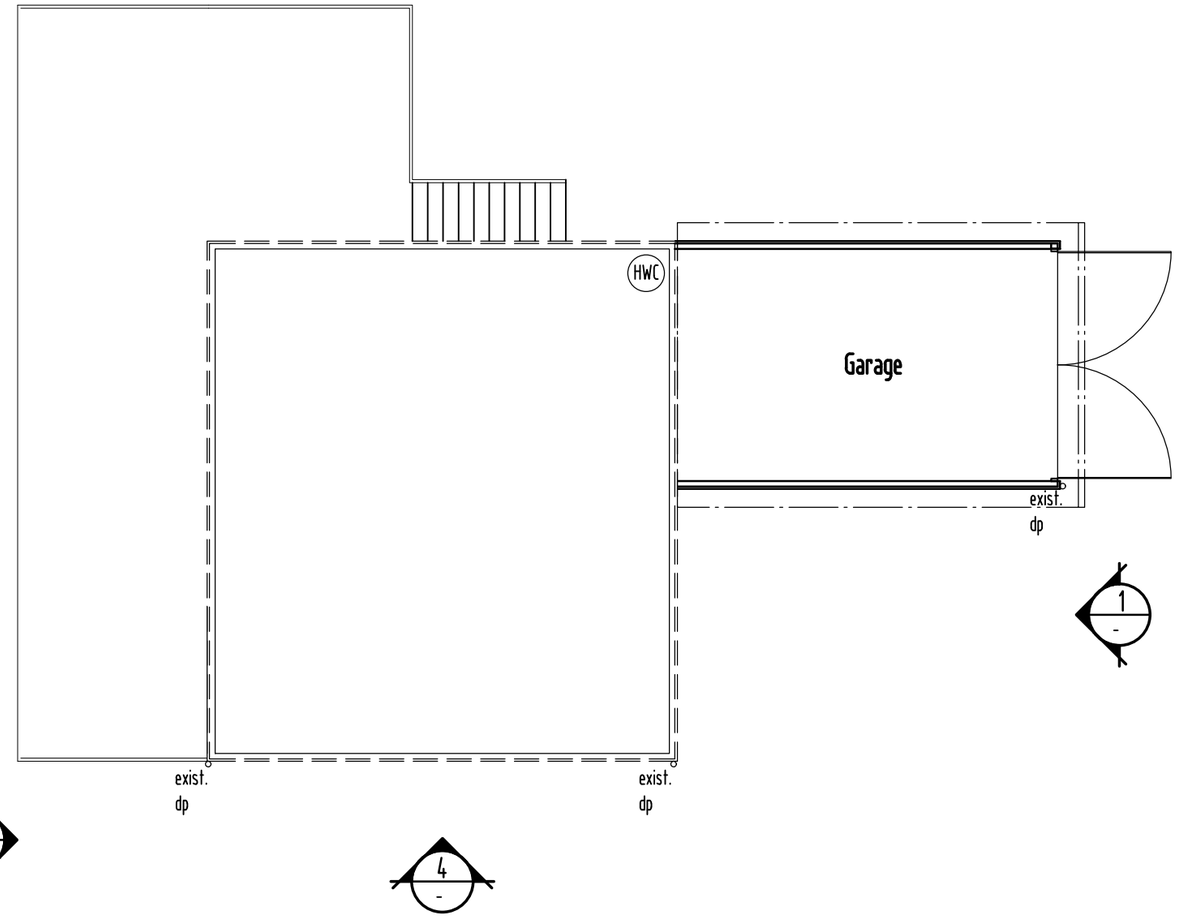
DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 04.07.2025





Existing Floor Areas:

Living	65.06m2
TOTAL FLOOR AREA:	65.06m2

Excludes existing Deck 48.82m2

Existing Upper Floor Plan

SCALE: 1:100 @A3

Sorell Council

Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf

Plans Reference:P2
Date Received:7/07/2025

Existing Floor Areas:

Garage	26.00m2
TOTAL FLOOR AREA:	26.00m2

Existing Lower Floor Plan

SCALE: 1:100 @A3

ISLAND LIFE DESIGNERS

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
	A

stage
- preliminary design
- design development
- contract documentation
- [x] DA
- BA
- construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Existing Floor plans

REVISION NO. 0

DRAWING NO.06

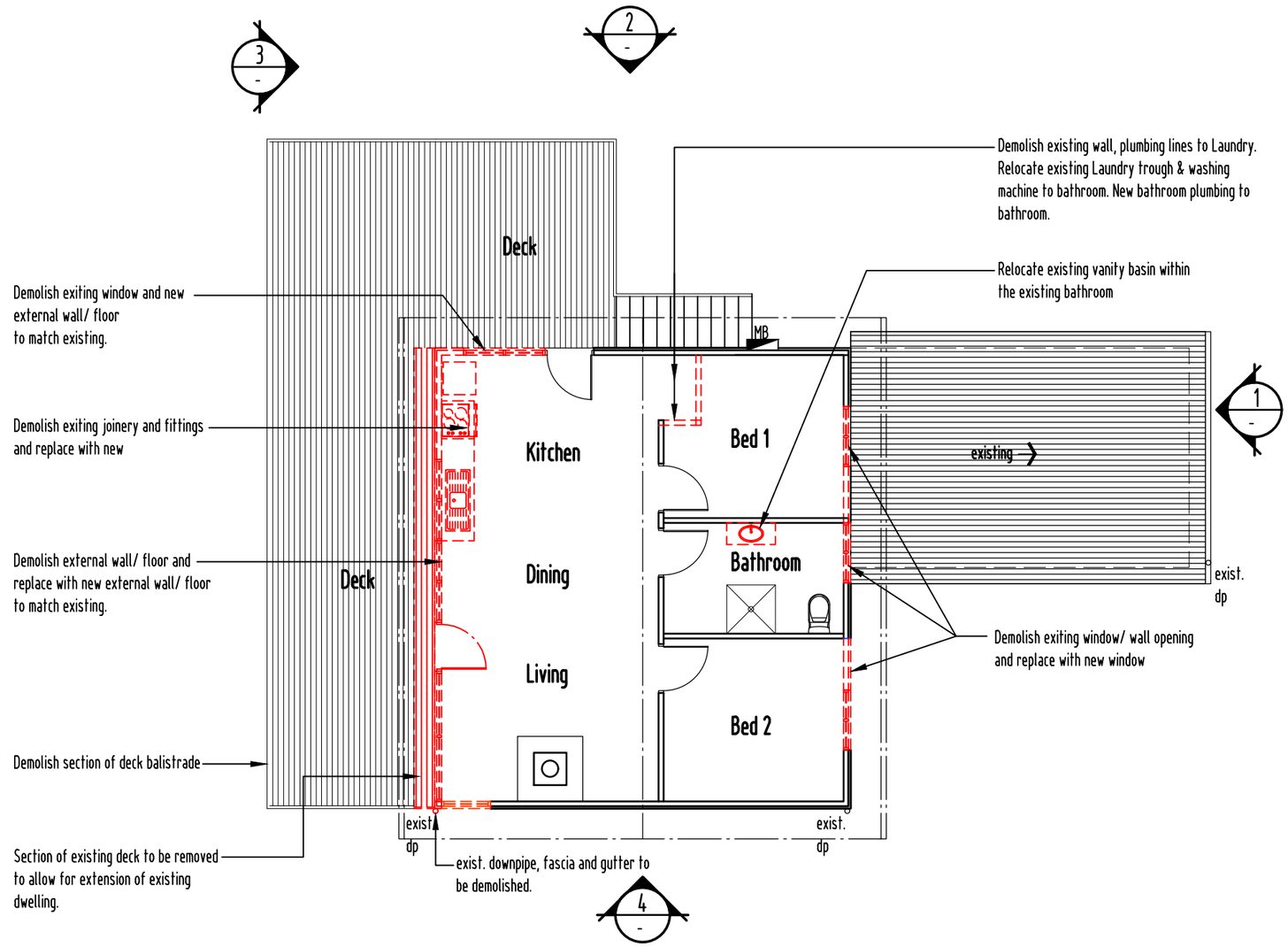
SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 25.06.2025



SORELL COUNCIL

Sorell Council

Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf

Plans Reference:P2
Date Received:7/07/2025

Upper Floor Demolition Plan

SCALE: 1:100 @A3

ISLAND LIFE DESIGNERS

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
Bathroom-laundry / windows/ cooker/	A

stage
- preliminary design
- design development
- contract documentation
- [x] DA
- BA
- construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Upper Floor Demolition plan

REVISION NO. A

DRAWING NO.06

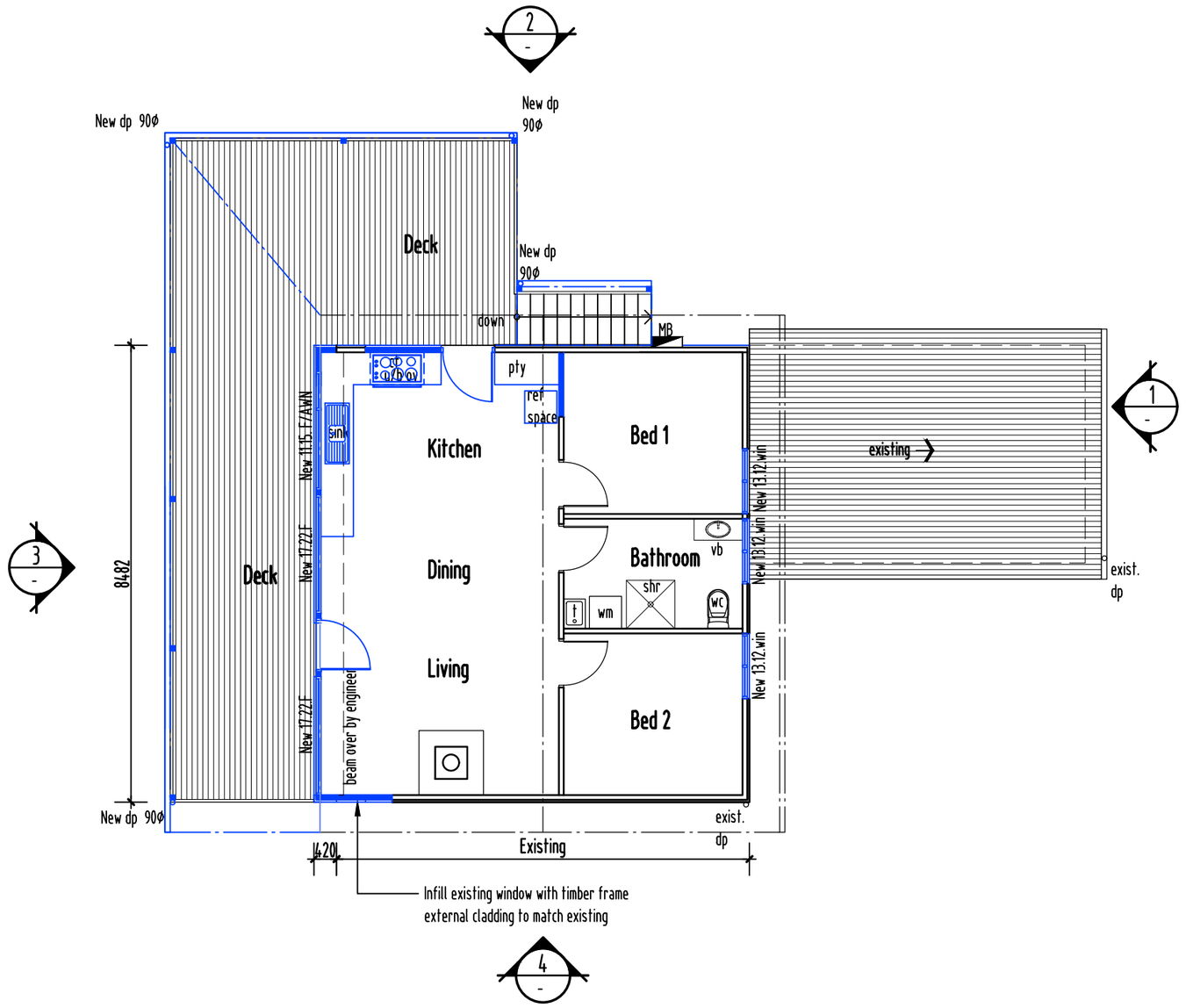
SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 25.06.2025



N

EXISTING

PROPOSED

Sorell Council

Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf

Plans Reference:P2
Date Received:7/07/2025

Proposed Upper Floor Areas:

Stair Cover	2.72m2
Roof Covered Deck	45.26m2
Living	68.62m2
TOTAL FLOOR AREA:	116.60m2

- / - **Proposed Upper Floor Plan**
SCALE: 1:100 @A3

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
Bathroom-laundry / windows/ cooker/	A

stage
- preliminary design
- design development
- contract documentation
- [x] DA
- BA
- construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Proposed Upper Floor plan

REVISION NO. A

DRAWING NO.07

SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

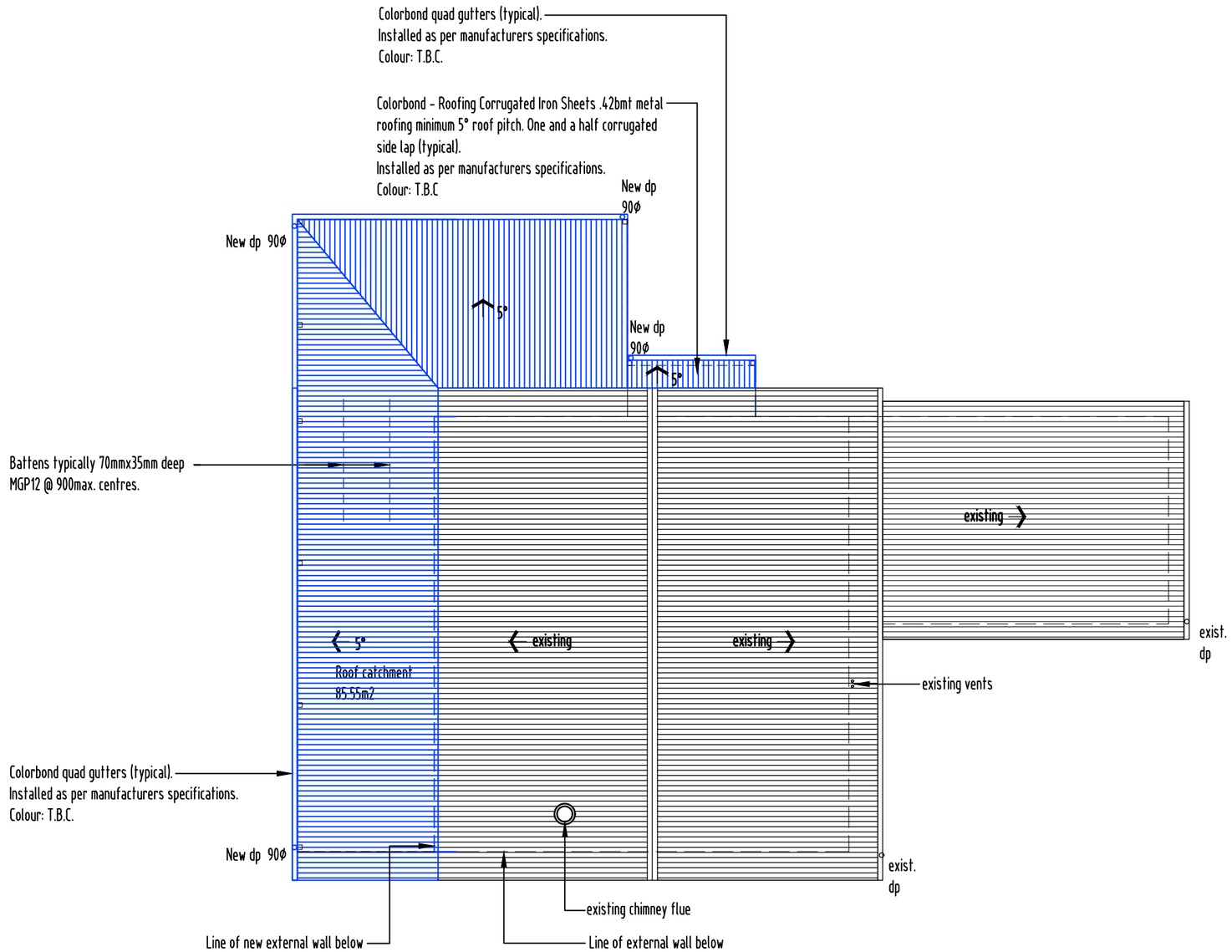
PROJECT NO. 24-019

Plot Date: 25.06.2025

N

EXISTING

PROPOSED



Proposed Roof Plan

scale: 1:100 @A3

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
	A

stage
- [ ] preliminary design
- [ ] design development
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Proposed Roof plan

REVISION NO. 0

DRAWING NO.08

SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 07.02.2025

LEGEND & NOTES

NEW PIPEWORK

- SEWER DN100 uPVC —S—
- SUB SOIL DRAINAGE ø90
- STORMWATER DN100 uPVC
- COLD WATER DN20 —W—

Wet areas shown hatched to comply with current AS3740:2021 & 2022 N.C.C. Refer to waterproofing details.

SYMBOLS

- INSPECTION OPENING
- FLOOR WASTE GULLY
- OVERFLOW RELIEF GULLY
- ISOLATION VALVE IN BOX
- DROPPER/ RISER
- PIT - (DETAILS BY CIVIL)
- WATER TAP

ABBREVIATIONS

V	VENT PIPE
IO	INSPECTION OPENING
FWG	FLOOR WASTE GULLY
IOS	INSPECTION OPENING SHAFT
ORG	ORVERFLOW RELIEF GULLY
IV	ISLOLATION VALVE IN BOX
D/R	DROPPER/ RISER
Bth	BATH
Shr	SHOWER
B	BASIN
S	SINK
Tr	TROUGH
WC	WATER CLOSET
FWG	FLOOR WASTE GULLY
HWC	HOT WATER CYLINDER
IV	ISOLATION VALVE
PLV	PRESSURE LIMITING VALVE
CWM	COLD WATER METER
GD	GRATED DRAIN
GP	GRATED PIT
RP	ROD POINT
IS	INSPECTION SHAFT

NOTE:
ALL WORKS MUST BE IN ACCORDANCE WITH THE CURRENT:
- N.C.C., AS3500.2 & AS3500.3
- WATER SERVICES ASSOCIATION OF AUSTALIA CODES (WSAA)
- LOCAL COUNCIL REQUIREMENTS
- TASWATER TECHNICAL STANDARDS
- ANY RELEVANT STANDARDS / MANUFACTURERS SPECIFICATIONS

REFER TO ROOF PLAN FOR ROOF CATCHMENT AREAS

Install inspection openings at major bends for stormwater and all low points of downpipes.

Provide surface drain to back of bulk excavation to drain levelled pad prior to commencing footing excavation.

Services

The heated water system must be designed and installed with Part B2 of NCC 2022 Volume Three - Plumbing Code of Australia.

Thermal insulation for heated water piping must:
a) be protected against the effects of weather and sunlight; and
b) be able to withstand the temperatures within the piping; and
c) use thermal insulation in accordance with AS/NZS 4859.1:2018

Heated water piping that is not within a conditioned space must be thermally insulated as follows:
1. Internal piping
a) All flow and return internal piping that is -
i) within an unventilated wall space
ii) within an internal floor between storeys; or
iii) between ceiling insulation and a ceiling

Must have a minimum R-Value of 0.2 (ie 9mm of closed cell polymer insulation)

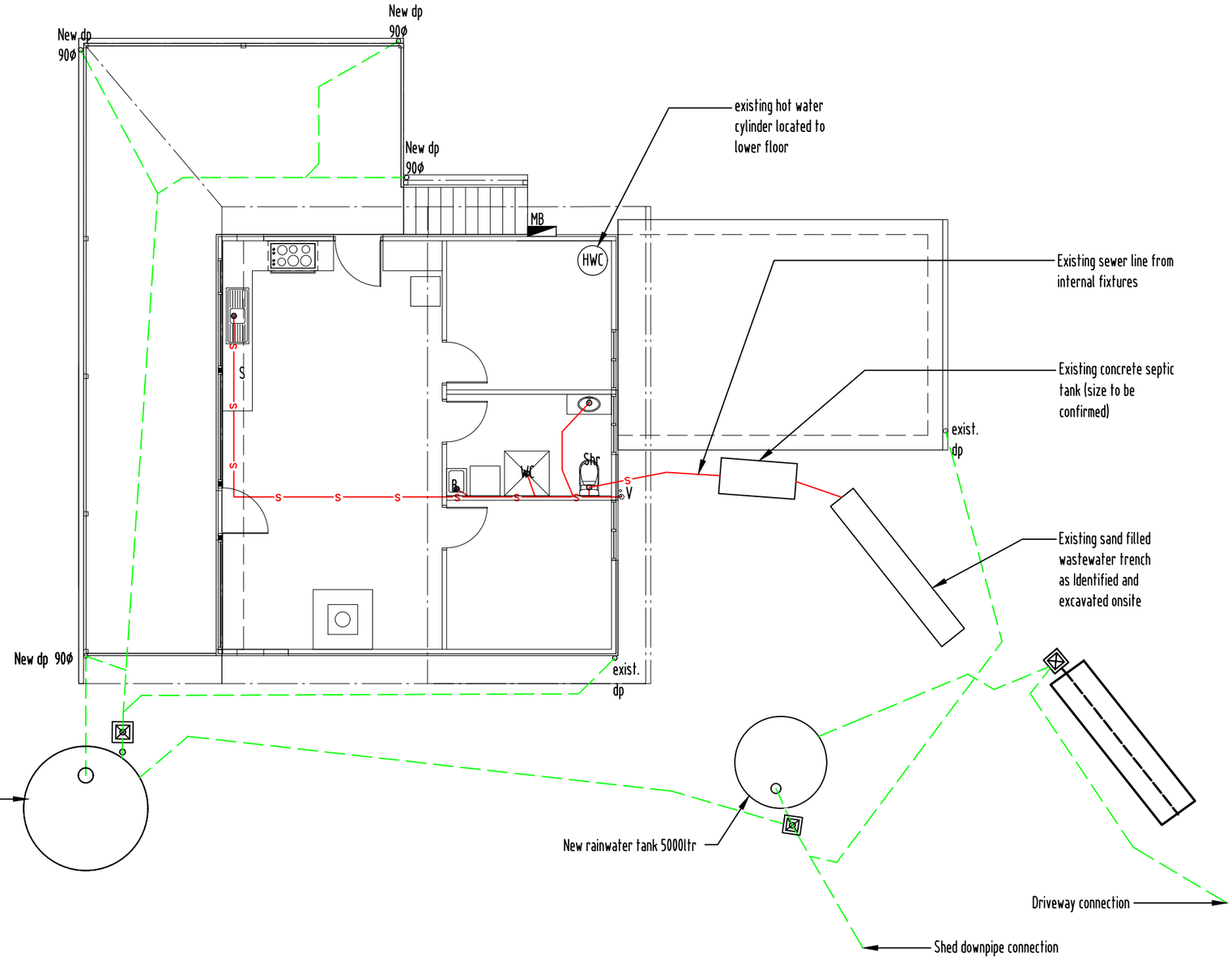
2. Piping located within a ventilated wall space, an enclosed building subfloor or a roof space
a) All flow and return piping
b) Cold water supply piping and Relief valve piping- within 500mm of the connection to central water heating system

Must have a minimum R-Value of 0.45 (ie 19mm of closed cell polymer insulation)

3. Piping located outside the building or in an unenclosed building sub-floor or roof space
a) All flow and return piping
b) Cold water supply piping and Relief valve piping- within 500mm of the connection to central water heating system

Must have a minimum R-Value of 0.6 (ie 25mm of closed cell polymer insulation)

Piping within an insulated timber framed wall, such as that passing through a wall stud, is considered to comply with the above insulation requirements.



Proposed Upper Floor Plumbing Plan

scale: 1:100 @A3

Refer to Hydraulic Engineers plans for further details

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
Sink/ vanity basin/ laundry tub/ shower/ wc	A
Hydraulic Engineer plans	B

stage
- preliminary design
- design development
- contract documentation
- [x] DA
- BA
- construction drawings

PROJECT NAME : Retrospective Dwelling and Proposed Shed

CLIENT : Mr & Mrs Obod.

SITE : No. 4 Wibar Street, Dodges Ferry Tasmania 7173

DRAWING TITLE : Proposed Upper Floor Plumbing plan

REVISION NO. B

DRAWING NO.09

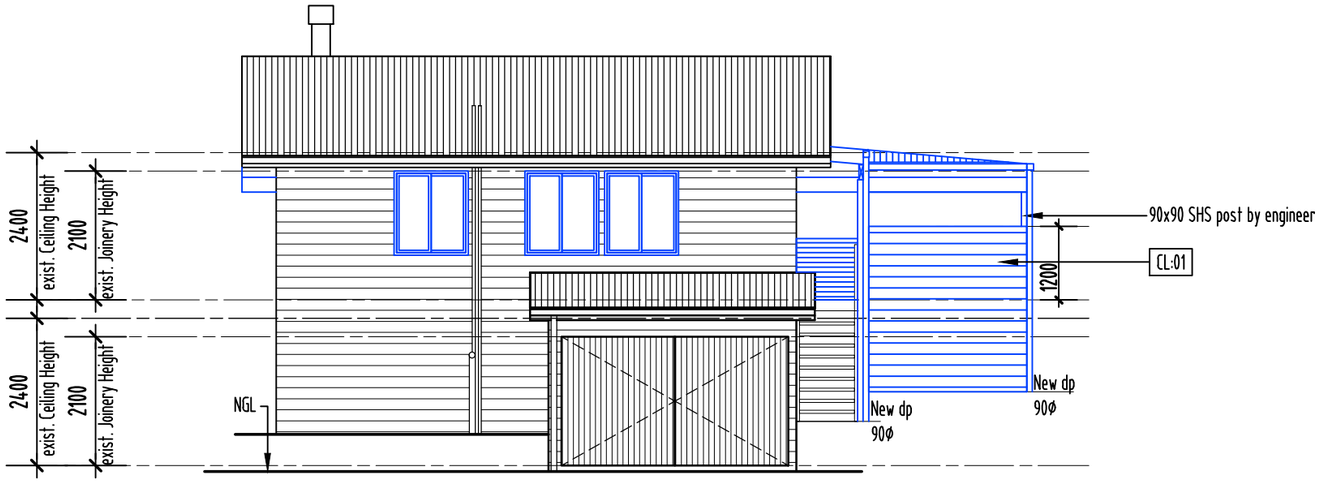
SCALE As noted on A3 paper size

DRAWN BY : N.Y.

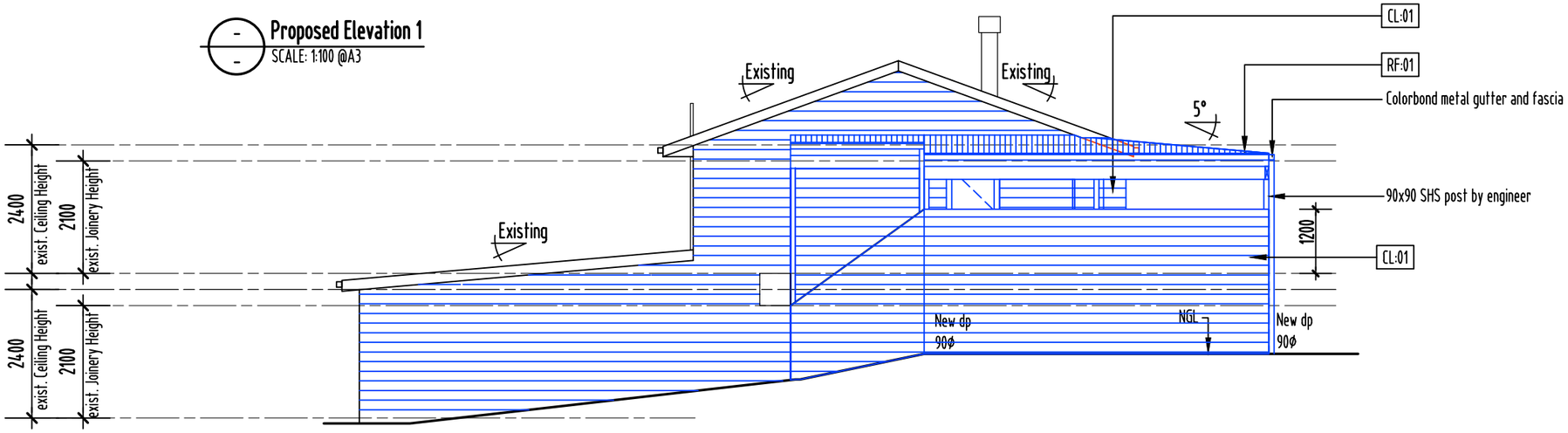
CHECKED BY : Nicholas Young

PROJECT NO. 24-019

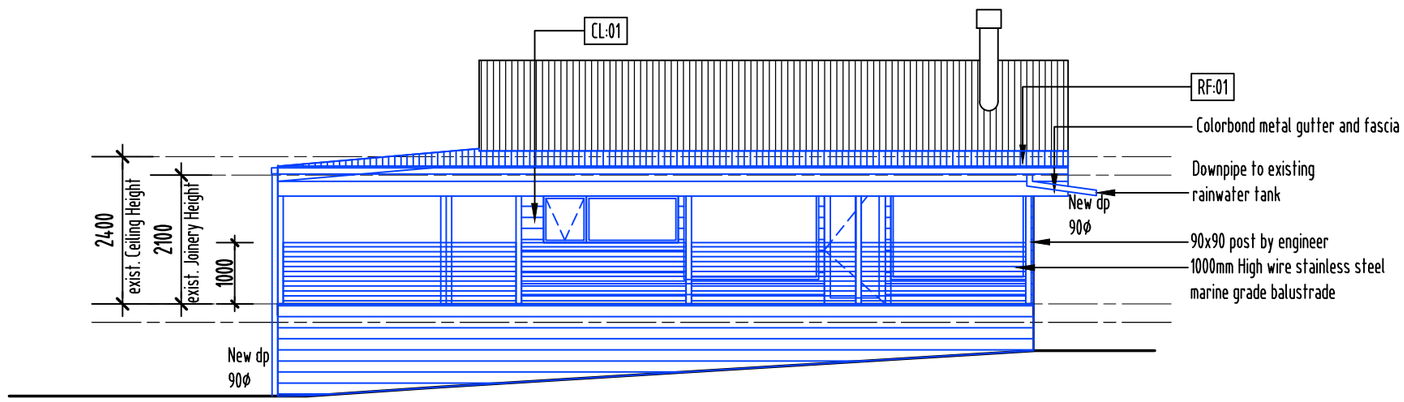
Plot Date: 04.07.2025



Proposed Elevation 1
SCALE: 1:100 @A3



Proposed Elevation 2
SCALE: 1:100 @A3



Proposed Elevation 3
SCALE: 1:100 @A3

LEGEND & NOTES

FL.	Floor level	S.	Sliding window
CL.	Ceiling level	AWN.	Awning window
F.	Fixed window		

DP. Downpipe 90Ø PVC
Colour: T.B.C

CL:01 James Hardie - Linea Weatherboard - LxW = 4200mmx180mm thickness = 16mm
(Refer to James Hardie installation guide for fixing methods).
Colour:

RF:01 Colorbond - Roofing Corrugated Iron Sheets .42bmt metal roofing minimum 5° roof pitch. One and a half corrugated side lap (typical).
Installed as per manufacturers specifications.
Colour: T.B.C

WF:01 Powder coated aluminium window / door frames
Colour: T.B.C.

EXISTING

PROPOSED

Sorell Council

Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf

Plans Reference:P2
Date Received:7/07/2025

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
Balustrade/ half height deck cladding	A

stage
- preliminary design
- design development
- contract documentation
- DA
- BA
- construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Proposed Elevations 1-2-3

REVISION NO. A

DRAWING NO.10

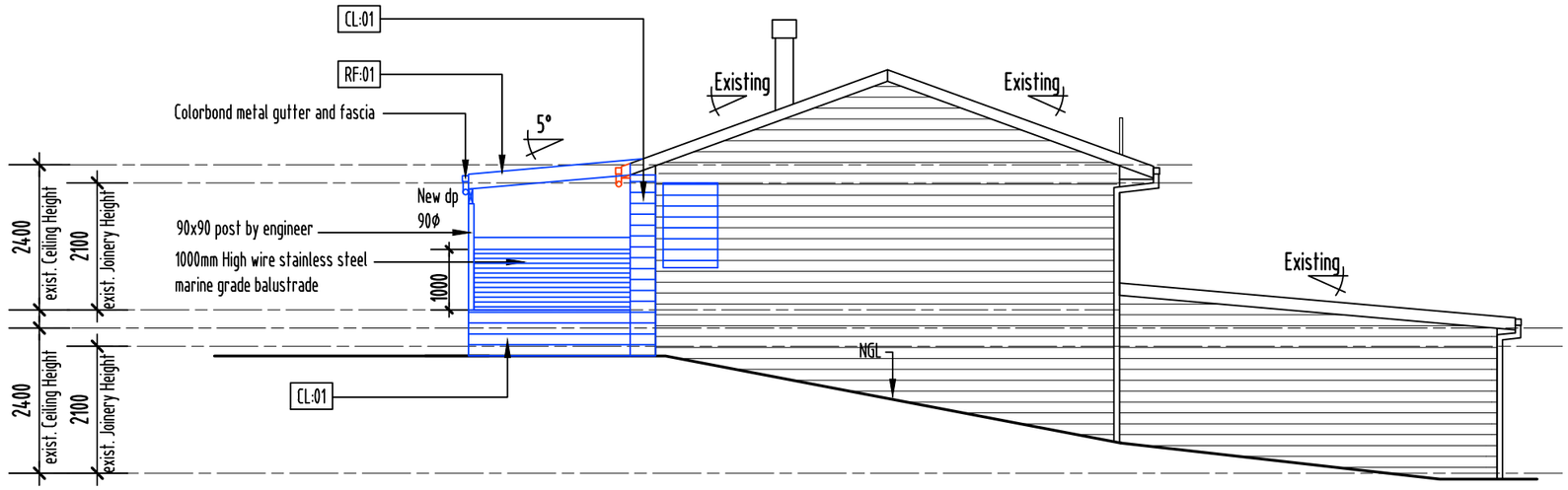
SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 25.06.2025



Proposed Elevation 4

SCALE: 1:100 @A3

LEGEND & NOTES

FL.	Floor level	S.	Sliding window
CL.	Ceiling level	AWN.	Awning window
F.	Fixed window		

DP. Downpipe 90Ø PVC
Colour: T.B.C

CL:01 James Hardie - Linea Weatherboard - LxW = 4200mmx180mm thickness = 16mm
(Refer to James Hardie installation guide for fixing methods).
Colour:

RF:01 Colorbond - Roofing Corrugated Iron Sheets .42bmt metal roofing minimum 5° roof pitch. One and a half corrugated side lap (typical).
Installed as per manufacturers specifications.
Colour: T.B.C

WF:01 Powder coated aluminium window / door frames
Colour: T.B.C.

EXISTING

PROPOSED

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
Balustrade/ half height deck cladding	A

stage
- [ ] preliminary design
- [ ] design development
- [ ] contract documentation
- [x] DA
- [ ] BA
- [ ] construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Proposed Elevation 4

REVISION NO. A

DRAWING NO.11

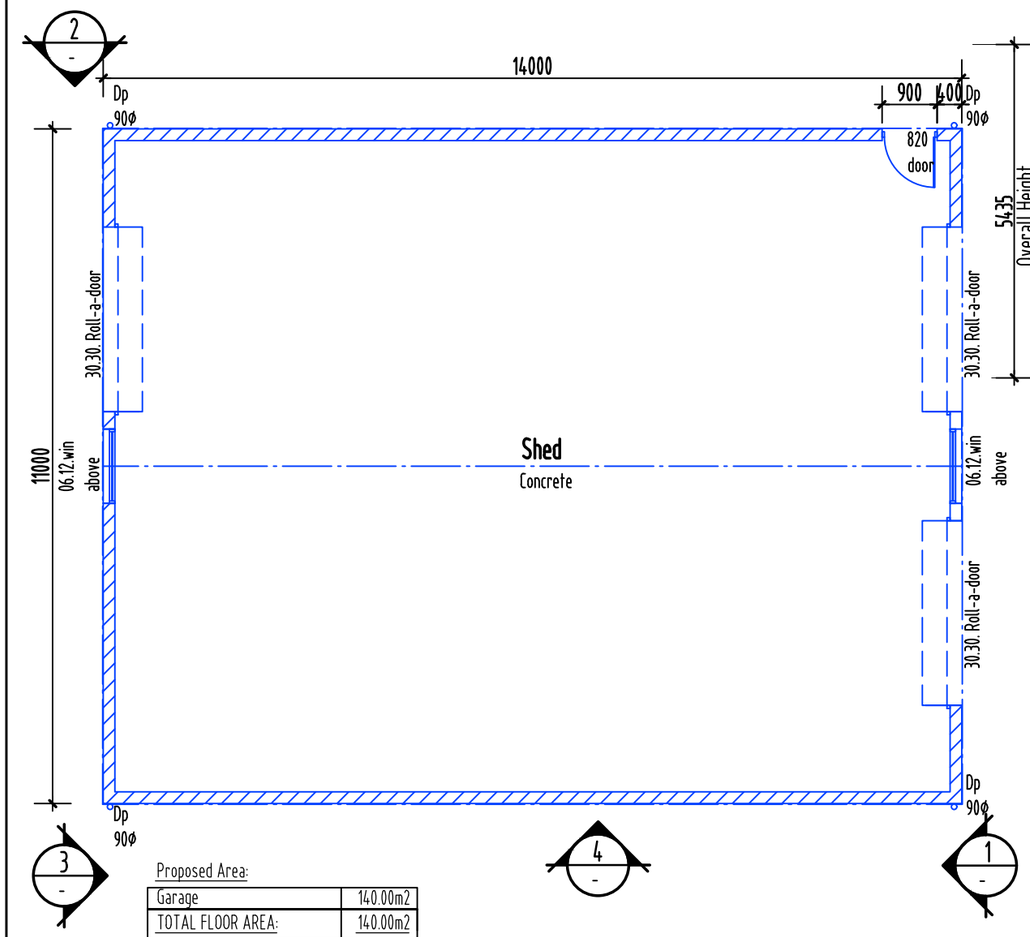
SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

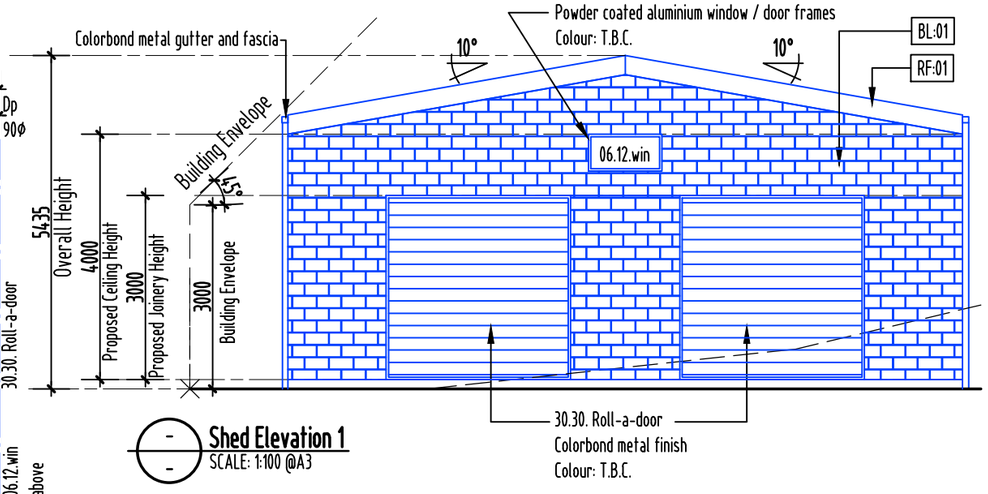
Plot Date: 25.06.2025



Proposed Area:

Garage	140.00m2
TOTAL FLOOR AREA:	140.00m2

Shed Floor plan
SCALE: 1:100 @A3



Shed Elevation 1
SCALE: 1:100 @A3

LEGEND & NOTES

FL.	Floor level	S.	Sliding window
CL.	Ceiling level	AWN.	Awning window
F.	Fixed window		

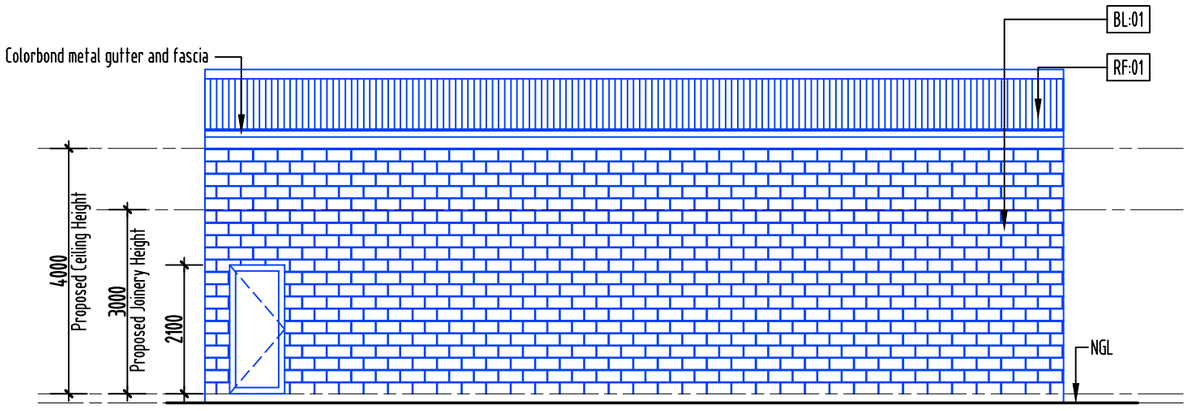
DP. Downpipe 90Ø PVC
Colour: T.B.C

BL:01 Concrete Block work
Size: 390mmL x 190mmW x 190mmH with light grey mortar & ironed joints.
Colour: Grey

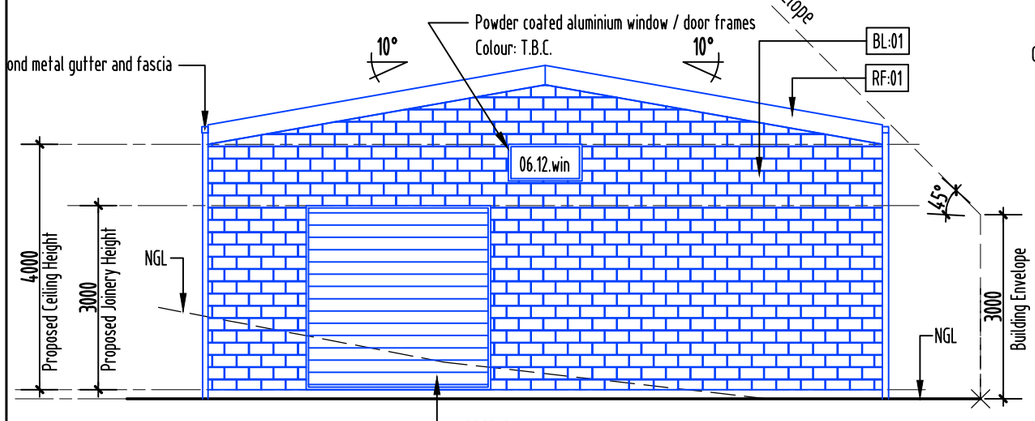
RF:01 Colorbond - Roofing Corrugated Iron Sheets .42bmt metal roofing at 10° roof pitch. One and a half corrugated side lap (typical).
Installed as per manufacturers specifications.
Colour: T.B.C

EXISTING

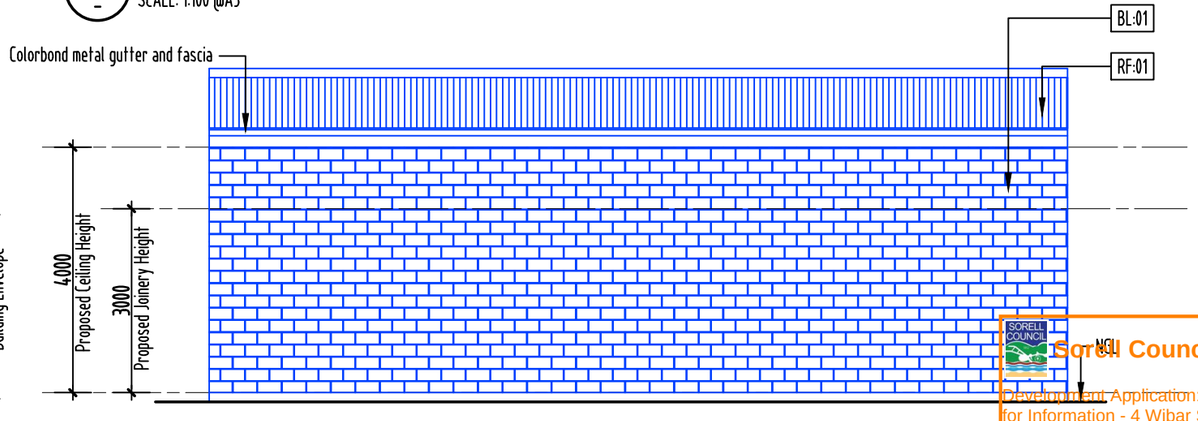
PROPOSED



Shed Elevation 2
SCALE: 1:100 @A3



Shed Elevation 3
SCALE: 1:100 @A3



Shed Elevation 4
SCALE: 1:100 @A3

ISLAND LIFE DESIGNERS
BUILDING SERVICES PROVIDER
LICENCE No. 456943679
CONTACT: nick@islandlifedesigners.com

General Notes
The Builder shall check all dimensions and levels on site prior to construction.
Notify any errors, discrepancies or omissions to the building designer.
Drawings shall not be used for construction purposes until issued for construction.
Do not scale drawings.
All boundaries and contours subject to survey

notes	revision
New door	A

stage
- preliminary design
- design development
- contract documentation
- [x] DA
- [ ] BA
- construction drawings

PROJECT NAME :
Retrospective Dwelling and Proposed Shed

CLIENT :
Mr & Mrs Obod.

SITE :
No. 4 Wibar Street
Dodges Ferry Tasmania 7173

DRAWING TITLE :
Shed plan and Elevations 1-2-3-4

REVISION NO. A

DRAWING NO.12

SCALE As noted on A3 paper size

DRAWN BY : N.Y.

CHECKED BY : Nicholas Young

PROJECT NO. 24-019

Plot Date: 25.06.2025

HYDRAULIC DRAWINGS
PROPOSED ADDITIONS AND ALTERATIONS
MR AND MRS OBOD
4 WIBAR STREET, DODGES FERRY TASMANIA

DRAWING SCHEDULE

SHEET	DRAWING TITLE	REV	DATE
C01	TITLE & OVERALL PLAN	0	01/07/2025
C02	NOTES & LEGEND	0	01/07/2025
C03	DETAILED HYDRAULIC LAYOUT 1	0	01/07/2025
C04	DETAILED HYDRAULIC LAYOUT 2	0	01/07/2025
C05	HYDRAULIC CONSTRUCTION DETAILS 1	0	01/07/2025
C06	HYDRAULIC CONSTRUCTION DETAILS 2	0	01/07/2025

OVERALL PLAN
SCALE 1:500 (mm) (A1)

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THE EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

DIAL BEFORE YOU DIG

REV	DESCRIPTION		DATE
0	FOR APPROVAL	CF	01/07/2025

REV	DESCRIPTION	DATE

BASE SURVEY SUPPLIED BY
N/A
SURVEYED ON:
HORIZONTAL DATUM:
GRID:
LEVEL DATUM: AHD

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 47981973

NORTH

PROPOSED ADDTIONS AND ALTERATIONS
CLIENT: MR AND MRS OBOD
4 WIBAR STREET, DODGES FERRY 7173
DRAWING TITLE
TITLE AND OVERALL PLAN

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	AS NOTED
PROJECT	SHEET NO.	REVISION
CKD-HYD-294	C01	0

LEGEND

NEW STORMWATER LINE(DN100 DWV SN6 @ MIN 1.0% GRADE

NEW DOMESTIC WATER

NEW DN100 DWV SN6 SEWER @ MIN 1.65% GRADE

NEW DN100 CHARGED STORMWATER LINE @ MIN 1.0% GRADE

SHAPED TABLE DRAIN

BOUNDARY LINE

EXISTING FENCE LINE

EXISTING OVERHEAD POWER LINE

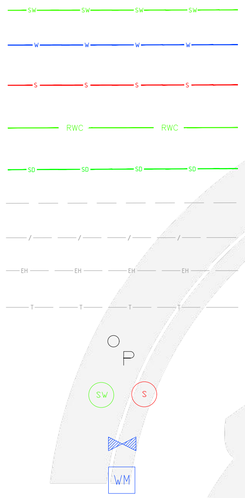
EXISTING TELECOMMUNICATIONS LINE

EXISTING POWER POLE

NEW STORMWATER/SEWER MANHOLE

WATER VALVE

WATER METER



GENERAL NOTES

1. ALL PRIVATE PLUMBING WORKS SHALL GENERALLY BE IN ACCORDANCE WITH THE AS3500, NATIONAL CONSTRUCTION CODE VOL 3 (PLUMBING CODE OF AUSTRALIA), & THE IPWEA MUNICIPAL STANDARD SPECIFICATION AND DRAWINGS AS APPLICABLE.
2. UNLESS NOTED OTHERWISE THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE WORKS INCLUDING ANY WORKS IN THE ROAD RESERVATION AND ON ADJACENT PRIVATE PROPERTIES.
3. THE CONTRACTOR SHALL CONFIRM THE PRESENCE & LOCATION OF ALL EXISTING SERVICES ON THE SITE & WITHIN THE AREA OF WORKS & CLEARLY IDENTIFY ALL DANGEROUS SERVICES UNDERGROUND & OVERHEAD.
4. ALL DRAIN AND SERVICES TIE IN LEVELS & LOCATIONS ARE TO BE CONFIRMED BEFORE COMMENCEMENT OF CONSTRUCTION WORK.
5. UNLESS NOTED OTHERWISE ALL SERVICE CONNECTIONS TO COUNCIL OR WATER AUTHORITY SERVICE SHALL BE UNDERTAKEN BY THE COUNCIL OR WATER AUTHORITY AT THE CONTRACTOR'S COST.
6. ALL REDUNDANT SERVICE LINES SHALL BE CUT AND PLUGGED AT EXTERNAL BOUNDARIES. WITHIN THE SITE BOUNDARY ALL REDUNDANT SERVICES SHALL BE REMOVED AND DISPOSED OF.
7. REDUNDANT SERVICE TRENCHES SHALL BE BACKFILLED WITH FULLY COMPACTED MATERIAL APPROPRIATE FOR THE AREA OF THE DEVELOPMENT SITE.
8. ALL UNDERGROUND WATER AND SEWER WORKS MUST BE TESTED AND INSPECTED BY COUNCIL OR TASWATER PRIOR TO BACKFILL.
9. ALL PIPES UNDER TRAFFIC ABLE AREAS ARE TO BE BACK FILLED FULL DEPTH WITH 20MM F.C.R. AND FULLY COMPACTED.

SERVICES NOTES:

WATER SUPLY

1. ALL WATER WORKS IN PUBLIC AREAS ARE TO BE IN ACCORDANCE WITH WATER SUPPLY CODE WSA 03-2011-3.1 MRWA ED 2 AND TASWATER'S SUPPLEMENT.
2. ALL WATER SUPPLY WORKS IN PRIVATE AREAS SHALL BE IN ACCORDANCE WITH IN ACCORDANCE WITH WITH AS3500.1 & AS3500.4
3. ALL INTERNAL WATER SUPPLY SERVICES SHALL BE PLANNED AND INSTALLED BY THE PLUMBING CONTRACTOR IN ACCORDANCE WITH AS3500.
4. ALL HOT WATER LINES ARE TO BE FULLY LAGGED.
5. ALL HOT WATER SERVICES TO BE INSTALLED WITH TEMPERING DEVICES PROVIDING WATER AT NO GREATER THAN 45 DEGREES C. IN ACCORDANCE WITH THE REQUIREMENTS OF AS 3500.4.
6. ALL MODIFICATIONS AND ADDITIONS TO WATER SERVICES THAT CONNECT DIRECTLY ONTO TASWATER MAINS MUST BE CARRIED BY TASWATER AT THE CONTRACTOR'S COST.
7. ALL WATER SUPPLY PIPES ARE TO BE LOCATED WITH MINIMUM CLEARANCES TO OTHER SERVICES IN ACCORDANCE WITH THAT SPECIFIED IN THE WATER SUPPLY CODE WSA 03-2011-3.1 MRWA ED E - TABLE 5.5.

SERVICES NOTES:

SEWER

1. ALL SEWER WORKS IN PUBLIC AREAS ARE TO BE IN ACCORDANCE WITH WSA 02-2002-2.3 MRWA EDITION 1.0 AND TASWATER'S SUPPLEMENT.
2. ALL SEWER WORKS IN PRIVATE AREAS SHALL BE IN ACCORDANCE WITH AS3500.2.
3. UNLESS NOTED OTHERWISE ALL SEWER DRAINS SHALL BE PVC SEWER CLASS "SN8" TO AS1260.
4. ALL SEWER MANHOLE LIDS TO BE GATIC TYPE, HEAVY DUTY FOR TRAFFIC AREAS, LIGHT DUTY FOR NON TRAFFIC AREAS.
5. WHERE NECESSARY ALL EXISTING MANHOLE & PIT TOPS SHALL BE ADJUSTED TO SUIT NEW SURFACE LEVELS. PROVIDE AND INSTALL NEW APPROVED LIDS WHERE NECESSARY.
6. PROVIDE ALL NECESSARY TESTING & INSPECTION OPENINGS TO PIPE WORK. WHERE RELEVANT PROVIDE ADDITIONAL INSPECTION OPENINGS TO ALLOW IDENTIFICATION OF THE ORIGIN OF BLOCKAGES.
7. ALL MAINTENANCE STRUCTURES ARE TO BE IN ACCORDANCE WITH WSA SEW1300 DRAWING SERIES.
8. NEW SEWER MAIN DRAINS SHALL BE DN150 UPVC CLASS 'SN8' TO AS 1260 - U.N.O.
9. ALL PRIVATE SEWER DRAINS TO BE DN100 (UNO) PVC TO AS1260.
10. MANHOLES WITH INTERNAL DROPS SHALL BE 1200 INTERNAL DIAMETER MINIMUM.

WORKPLACE HEALTH & SAFETY NOTES:

BEFORE THE CONTRACTOR COMMENCES WORK THE CONTRACTOR SHALL UNDERTAKE A SITE SPECIFIC PROJECT PRE-START HAZARD ANALYSIS / JOB SAFETY ANALYSIS (JSA) WHICH SHALL IDENTIFY IN DOCUMENTED FORM;

- THE TYPE OF WORK.
- HAZARDS AND RISKS TO HEALTH AND SAFETY.
- THE CONTROLS TO BE APPLIED IN ORDER ELIMINATE OR MINIMIZE THE RISK POSED BY THE IDENTIFIED HAZARDS.
- THE MANNER IN WHICH THE RISK CONTROL MEASURES ARE TO BE IMPLEMENTED.

THESE ARE TO BE SUBMITTED TO THE SUPERINTENDENT AND/OR OTHER RELEVANT WORKPLACE SAFETY OFFICERS.

FOR THIS PROJECT; POSSIBLE HAZARDS INCLUDE (BUT ARE NOT LIMITED TO):

- EXCAVATION OF ANY TYPE & DEPTHS
- CONTAMINATED SOILS
- CONSTRUCTION IN GROUND WITH HIGH WATER TABLE
- FELLING / LOPPING &/OR REMOVAL OF EXISTING TREES/VEGETATION
- UNDERGROUND STRUCTURES (MANHOLES / SUMPS / ETC)
- CONFINED SPACES
- OVERHEAD POWER LINES
- UNDERGROUND STORMWATER, WATER AND SEWER PIPES
- TELECOMMUNICATION CABLES - BOTH UNDERGROUND & OVERHEAD
- ELECTRICAL/POWER CABLES - BOTH UNDERGROUND & OVERHEAD
- WORKING AT HEIGHTS
- WORKING WITH ASBESTOS CONTAINING MATERIALS
- TRAFFIC MANAGEMENT

DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS mm	
	WIDTH	LENGTH
≤600	450	450
>600 ≤900	600	600
>900 ≤1200	600	900
>1200	900	900

EARTHWORKS & DRIVEWAY NOTES:

1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".
2. ALL VEGETATION AND TOPSOIL SHALL BE STRIPPED AND GRUBBED IN THE AREA OF PROPOSED WORKS.
3. NEW OR MODIFIED DRIVEWAY CROSSINGS SHALL BE IN ACCORDANCE WITH IPWEA STANDARD DRAWING TSD-R09-v3 AND MUST BE INSPECTED AND APPROVED BY COUNCIL.
4. EXCAVATED AND IMPORTED MATERIAL USED AS FILL IS TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
5. FILL MATERIAL SHALL BE WELL GRADED AND FREE OF BOULDERS OR COBBLES EXCEEDING 150mm IN DIAMETER UNLESS APPROVED TO BE OTHERWISE.
6. FILL REQUIRED TO SUPPORT DRIVEWAYS INCLUDING FILL IN EMBANKMENTS THAT SUPPORT DRIVEWAYS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   - TOP SOIL AND ORGANIC MATTER SHALL BE STRIPPED TO A MINIMUM OF 100mm.
   - THE SUB GRADE SHALL HAVE A MINIMUM BEARING CAPACITY OF 100 kPa.
   - FILL IN EMBANKMENTS SHALL BE KEYED 150mm INTO NATURAL GROUND.
   - THE FILL SHALL BE COMPACTED IN HORIZONTAL LAYERS OF NOT MORE THAN 200mm.
   - EACH LAYER SHALL BE COMPACTED TO A MINIMUM DENSITY RATIO OF 95% STD, IT IS THE BUILDERS RESPONSIBILITY TO ENSURE THAT THIS IS ACHIEVED.
7. WHERE THE ABOVE REQUIREMENTS CANNOT BE ACHIEVED THE ENGINEER SHALL BE CONSULTED AND THE FORMATION SHALL BE PROOF ROLLED (UNDER SUPERVISION OF THE ENGINEER) TO CONFIRM AN APPROVED BASE.
8. CONCRETE PAVEMENTS SHALL BE CURED FOR A MINIMUM OF 3 DAYS USING A CURRENT BEST PRACTICE METHOD.
9. SAWN CONTROL JOINTS SHALL BE CONSTRUCTED AS SOON AS POSSIBLE WITHOUT RAVELLING THE JOINT, GENERALLY THIS SHALL BE WITHIN 24 HOURS.
10. BATTERS SHALL BE SET TO A SAFE ANGLE OF REPOSE IN ACCORDANCE WITH THE BCA VOL 2 AS INDICATED BELOW:

NOTE: WHERE SITE CONDITIONS ARE UNSUITABLE FOR A BATTERED BANK CONSULT THE DESIGNER OR ENGINEER FOR A SUITABLE RETAINING WALL DESIGN. EMBANKMENTS THAT ARE TO BE LEFT EXPOSED MUST BE STABILISED BY VEGETATION OR SIMILAR WORKS TO PREVENT SOIL EROSION.

SEE TABLE BELOW

SOIL TYPE (* REFER BCA 3.2.4)		EMBANKMENT SLOPES H:L	
		COMPACTED FILL	CUT
STABLE ROCK (A*)		2:3	8:1
SAND (A*)		1:2	1:2
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

SERVICES NOTES:

STORMWATER

1. ALL STORMWATER WORKS TO BE IN ACCORDANCE WITH AS3500.3.
2. ALL STORM WATER PIPES LESS THAN DN300 TO BE UPVC CLASS "SN8" TO AS 1254 UNO.
3. ALL STORMWATER PIPES DN300 & LARGER TO BE 'BLACKMAX' UNO.
4. ALL SUBSOIL DRAINS SHALL COMPRISE DN80 CLASS 400 SN8 POLYETHYLENE PIPE TO AS2439.1 WITH PROPRIETARY POLYESTER PIPE FILTER SOCK SLEEVING AND FREEE DRAINING BEDDING MATERIAL.
5. PROVIDE ANCHOR BLOCKS IN ACCORDANCE WITH MSD SD-5005 WHERE PIPE GRADES EXCEED 15 %.
6. CONNECTIONS TO LIVE COUNCIL MAINS TO BE CARRIED OUT BY COUNCIL AT DEVELOPERS COST.
7. ALL DRAIN AND TRENCH CONSTRUCTION SHALL COMPLY WITH THE MUNICIPAL STANDARD DRG MSD SD 5001.
8. ALL MANHOLE LIDS IN TRAFFICABLE AREAS SHALL COMPLY WITH CLASS "C" LOAD RATING TO AUSTRALIAN STANDARD AS 3996.

PIT DIMENSIONS SHOWN HAVE BEEN DESIGNED BY PIT CAPACITY TABLES. THESE PITS MAY NEED TO BE INCREASED IN MINIMUM INTERNAL SIZE DUE TO THE DEPTH AS PER AS3500.3 AS PER TABLE BELOW WHICH IS THE CONTRACTORS RESPONSIBILITY TO ENSURE COMPLIANCE TO AS3500: (SEE ADJACENT)

SERVICES NOTES:

RAINWATER TANKS

1. RAINWATER TANKS USED FOR THE COLLECTION OF WATER FOR DRINKING MUST BE SEALED AS PER NCC VOL 3 TAS B1D7. THIS IS AT ALL POINTS, INLET, ACCESS AND OVERFLOW/STORMWATER OUTLET.
2. ACCESS OPENINGS MUST BE SEALED IS SUCH A WAY THAT GROUND WATER SHALL NEVER ENTER THE TANK. ANY SEALANTS MUST BE COMPLIANT WITH AS/NZS 4020.
3. STORMWATER OUTLETS MUST HAVE SOME FORM OF SURCHARGE PROTECTION TO PREVENT CONTAMINATED WATER MAKING ITS WAY BACK INTO THE TANK.
4. TANKS MAY BE BURIED BUT MUST REMAIN ACCESSIBLE. THIS MEANS THAT ACCESS FOR INSPECTION/MAINTENANCE MUST BE BOUGHT TO SURFACE AND REMAIN ACCESSIBLE.
5. A DRINKING WATER SUPPLY MUST BE DISINFECTED PRIOR TO FIRST USE AND REGULAR CLEANING CONSIDERED THEREAFTER.

B1D7 APPLIES TO TANKS — INCLUDING RAINWATER TANKS — CONNECTED TO THE ROOF PLUMBING SYSTEM, OR A TANK SUPPLIED FROM A NEARBY STREAM, BORE OR WELL USED IN DRINKING WATER SERVICES, OR A DRINKING WATER SUPPLY IN RETICULATED OR NON-RETICULATED AREAS.

INSTALLATION OF COLD-WATER STORAGE TANKS USED TO SUPPLY WATER TO A DRINKING WATER SERVICE MUST COMPLY WITH B1D7.

FOR CONNECTION OF COLD WATER TANKS WHERE RETICULATED SUPPLY IS AVAILABLE REFER TO SECTIONS 8 AND 15 OF AS/NZS 3500.1.

COLD WATER STORAGE TANKS AND THEIR INSTALLATION MUST COMPLY WITH THE RELEVANT REQUIREMENTS OF THE FOLLOWING DOCUMENTS—

AS 2070 PLASTICS MATERIALS FOR FOOD CONTACT USE
AS 3600 CONCRETE STRUCTURES
AS 3735 CONCRETE STRUCTURES RETAINING LIQUIDS
AS/NZS 2179.1 SPECIFICATIONS FOR RAINWATER GOODS, ACCESSORIES AND FASTENERS – METAL SHAPE OR SHEET RAINWATER GOODS, AND METAL ACCESSORIES AND FASTENERS
AS/NZS 3500.0 PLUMBING AND DRAINAGE
AS/NZS 3500.1 WATER SERVICES
AS/NZ 3500.3 STORMWATER DRAINAGE
AS/NZS 4020 TESTING OF PRODUCTS IN CONTACT WITH DRINKING WATER
AS/NZS 4130 POLYETHYLENE (PE) PIPES FOR PRESSURE APPLICATIONS
AS/NZS 4766 POLYETHYLENE STORAGE TANKS FOR WATER AND CHEMICALS
ABCB PROCEDURES FOR THE CERTIFICATION OF PLUMBING AND DRAINAGE PRODUCTS SECTION B WATER SERVICES TASMANIA
NCC 2019 VOLUME THREE - PLUMBING CODE OF AUSTRALIA PAGE 134
THE FOLLOWINGS REFERENCES ARE FOR INFORMATION ONLY— HB 230 RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK AND THE ENHEALTH GUIDANCE ON THE USE OF RAINWATER TANKS

(3)
MATERIALS AND PRODUCTS IN CONTACT WITH WATER IN A DRINKING WATER SUPPLY MUST COMPLY WITH AS/NZS 4020. LININGS AND COATINGS MUST COMPLY WITH AS/NZS 4020 AT A SURFACE AREA TO VOLUME RATIO NOT GREATER THAN THAT SPECIFIED IN THE CONDITIONS OF USE. MATERIALS AND PRODUCTS USED IN MANUFACTURE OF TANKS MUST BE SELECTED TO ENSURE FITNESS FOR THEIR INTENDED PURPOSE. TANKS MUST BE SELECTED FROM THE RELEVANT STANDARDS LISTED IN THIS PART. FACTORS TO BE TAKEN INTO ACCOUNT INCLUDE — BUT ARE NOT LIMITED TO—

THE NATURE AND SOURCE OF THE WATER;
THE RISK OF CORROSION AND TANK CONTAMINATION;
THE NATURE OF THE ENVIRONMENT;
THE PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE MATERIALS AND PRODUCTS;
COMPATIBILITY OF MATERIALS AND PRODUCTS; AND
ACCESSIBILITY FOR MONITORING AND MAINTENANCE.

(4)
PLASTIC TANKS MUST COMPLY WITH AS/NZS 4766

(5)
WATERSTOPS, JOINT FILLERS AND SEALANTS USED IN THE MANUFACTURE OF TANKS MUST BE CERTIFIED UNDER THE WATERMARK CERTIFICATION SCHEME TO AS/NZS 4020.

(6)
SOLDERS USED IN THE MANUFACTURE OF TANKS MUST BE CERTIFIED UNDER THE WATERMARK CERTIFICATION SCHEME TO AS/NZS 4020. SOFT SOLDER MUST COMPLY WITH AS 1834.1 AND BE LEAD-FREE FOR ROOF DRAINAGE COMPONENTS USED FOR THE CONVEYANCE OF DRINKING WATER.

(7)
STAINLESS STEEL SHEET MUST BE MANUFACTURED FROM ALLOY 304 OR 316 COMPLYING WITH ASTM A240/A240M.

(8)
DEZINCIFICATION RESISTANT (DR) COPPER ALLOYS WHERE DEZINCIFICATION RESISTANT COPPER ALLOYS ARE SPECIFIED, THEY MUST COMPLY WITH AS 2345.

(9)
STEEL SHEET HOT-DIPPED ZINC-COATED OR ALUMINIUM/ZINC-COATED SHEET STEEL MUST COMPLY WITH AS 1397 AND HAVE AN INTERNAL LINING OR COATING CERTIFIED TO AS/NZS 4020.

(10)
CONCRETE TANKS MUST COMPLY WITH AS 3735 OR AS 3600.

(11)
TANK LININGS MUST COMPLY WITH AS/NZS 4020.

(12)
IN ADDITION TO THE MARKING REQUIREMENTS SET OUT IN CLAUSE 8.9 OF AS/NZS 3500.1 ALL TANKS MUST BE PERMANENTLY MARKED WITH THE FOLLOWING—

MANUFACTURER'S NAME, BRAND OR TRADEMARK, AND
THE STANDARD WHICH THE TANK IS MANUFACTURED TO, AND
THE DATE OF MANUFACTURE.

(13)
A SLUDGE VALVE MUST BE FITTED WHEN THE CAPACITY OF THE TANK EXCEEDS 500 LITRES. THE MINIMUM SIZE OF THE VALVE MUST BE NOT LESS THAN HALF THE OUTLET PIPE SIZE AND NOT LESS THAN DN 40.

(14)
ALL OPENINGS TO TANKS MUST BE SEALED SO THAT INSECTS, SMALL ANIMALS, BIRDS AND SUNLIGHT CANNOT ENTER TANKS, IN ORDER TO MINIMISE THE GROWTH OF ALGAE AND TO PREVENT UNAUTHORISED ACCESS.

(15)
BEFORE USING THE WATER FROM A TANK FOR THE FIRST TIME THE TANK MUST BE CLEANED AND DISINFECTED (SEE APPENDIX I OF AS/NZS 3500.1).

(16)
THE MANUFACTURER'S WARRANTY MUST CONTAIN THE FOLLOWING STATEMENT: "THIS TANK HAS BEEN MANUFACTURED FOR THE STORAGE OF DRINKING WATER AND ALL MATERIALS USED ARE SUITABLE FOR CONTACT WITH DRINKING WATER."

NOT FOR CONSTRUCTION

DIAL BEFORE YOU DIG

REV	DESCRIPTION	DATE
0	FOR APPROVAL CF	01/07/2025

REV	DESCRIPTION	DATE

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

PROPOSED ADDTIONS AND ALTERATIONS
CLIENT: MR AND MRS OBOD
4 WIBAR STREET, DODGES FERRY 7173
DRAWING TITLE
NOTES AND LEGEND

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	AS NOTED
PROJECT	SHEET NO.	REVISION
CKD-HYD-294	C02	0

4 WIBAR STREET DODGES FERRY
PROPERTY ID 5929425
TITLE REF 112152/2

BOUNDARY

BOUNDARY

BOUNDARY

BOUNDARY

WIBAR STREET

DN90 DP

DN90 DP

DN90 DP

DN90 DP

EXISTING SEWER LINE FROM INTERNAL FIXTURES

EXISTING CONCRETE SEPTIC TANK (SIZE TO BE CONFIRMED)

EX DP

EXISTING SAND FILLED WASTEWATER TRENCH AS IDENTIFIED AND EXCAVATED ON SITE

CHARGED STORMWATER LINES TO RAINWATER TANKS WITH DN100 OVERFLOW TO STORMWATER INFILTRATION TRENCH (REFER TO DETAIL ON C06)

DN100 DWV SN6 STORMWATER CHARGED LINE @ MIN 1.0% BACK TO CLEANOUT PIT

EXISTING HOUSE

EX DP

GRAVEL AND ARCH FILLED ONSITE STORMWATER INFILTRATION DISPOSAL BED 10m LONG x 2m WIDE x 600mm DEEP, TO BE CONSTRUCTED AS PER DETAIL ON C05

PROPOSED 5000L RAINWATER TANK

DN90 DP

350x350x450D GRATED SW PIT TO HAVE PRESSURIZED SCREW CAP IO ON CHARGED LINE FOR CHARGED LINE CLEANOUT TO DISPERSE WITHIN THE PIT (AS PER DETAIL ON C06)

DN100 DWV SN6 GRAVITY STORMWATER OVERFLOW LINE FROM RAINWATER TANKS @ MIN 1.0% GRADE TO PIT AND BED

EXISTING RAINWATER TANK

DN100 DWV SN6 STORMWATER CHARGED LINE @ MIN 1.0% BACK TO CLEANOUT PIT

450x450x600D GRATED STORMWATER PIT

PROPOSED CONCRETE DRIVEWAY

MIN 150mm WIDE TRAFFICABLE GRATED DRAIN, TO FALL TOWARDS PIT @ MIN 1.0%

DN90 DP

DN90 DP

REFER TO CONTINUATION OF C04

REFER TO CONTINUATION OF C04

DETAILED LAYOUT PLAN 1

SCALE 1:50 (mm)

Sorell Council
Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf
Plans Reference:P2
Date Received:7/07/2025

REV	DESCRIPTION		DATE
0	FOR APPROVAL	CF	01/07/2025

REV	DESCRIPTION	DATE

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS

PH: 0414 149 394

ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

PROPOSED ADDTIONS AND ALTERATIONS

CLIENT: MR AND MRS OBOD
4 WIBAR STREET, DODGES FERRY 7173

DRAWING TITLE
DETAILED HYDRAULIC LAYOUT 1

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	AS NOTED
PROJECT	SHEET NO.	REVISION
CKD-HYD-294	C03	0

DIAL BEFORE YOU DIG

REFER TO CONTINUATION OF C03

REFER TO CONTINUATION OF C03

DETAILED LAYOUT PLAN 2

SCALE 1:50 (mm)

DIAL BEFORE YOU DIG

REV	DESCRIPTION	DATE
0	FOR APPROVAL CF	01/07/2025

REV	DESCRIPTION	DATE

Sorell Council

Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - S.2025.122.1 - P2.pdf
Plans Reference:P2
Date Received:7/07/2025

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS

PH: 0414 149 394

ACCREDITATION: BSD LICENCE NO. 479819732

NORTH

PROPOSED ADDTIONS AND ALTERATIONS

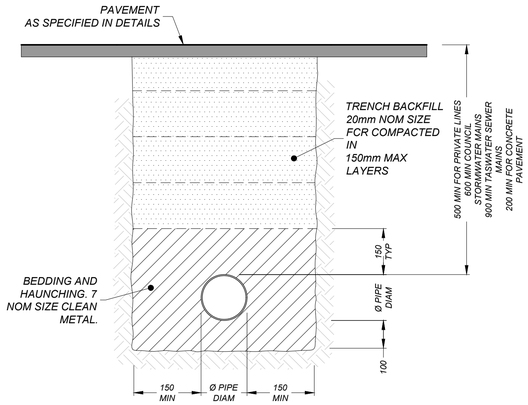
CLIENT: MR AND MRS OBOD
4 WIBAR STREET, DODGES FERRY 7173

DRAWING TITLE

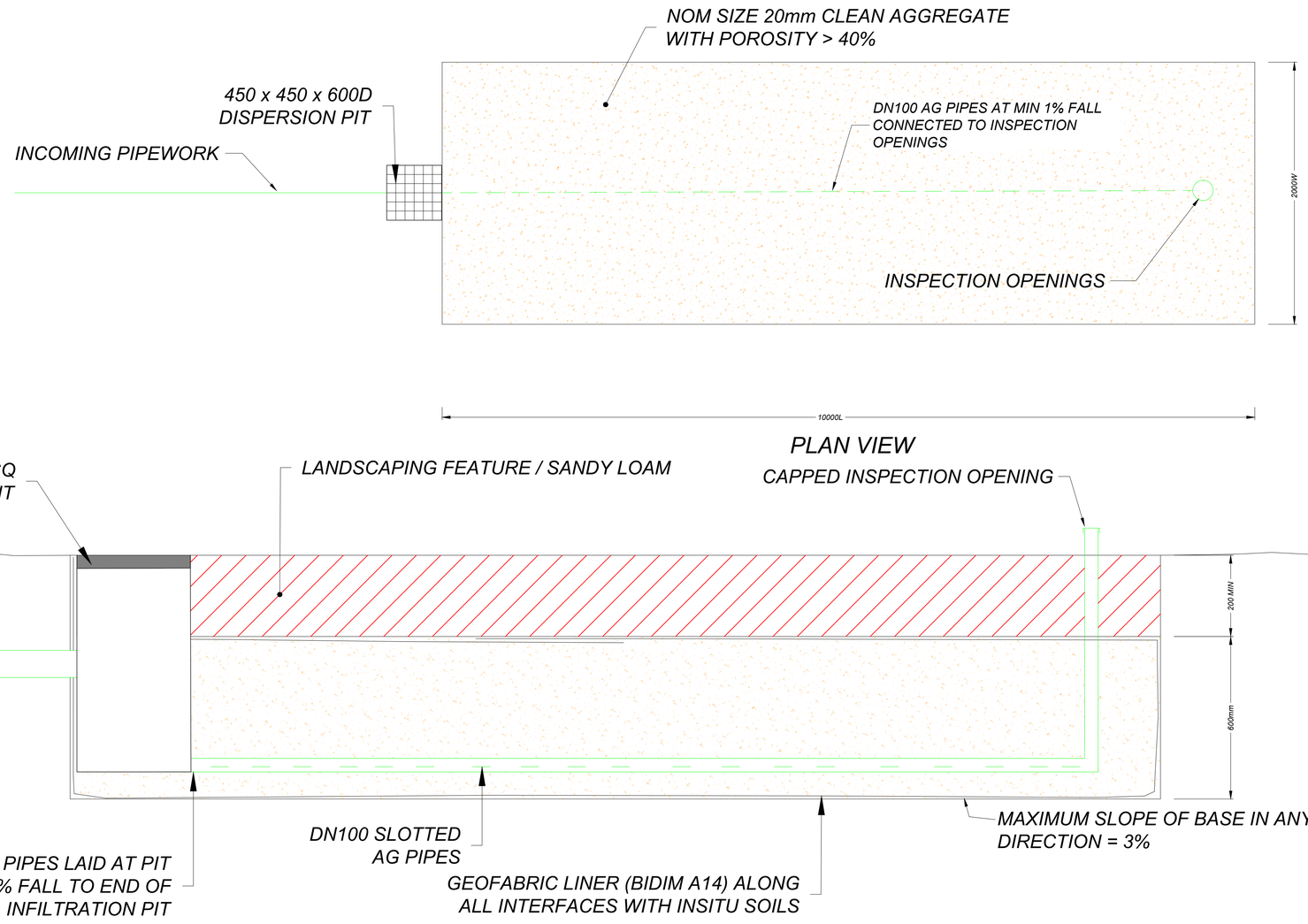
DETAILED HYDRAULIC LAYOUT 2

SCALE 1:100

DESIGNED	DRAWN	SCALE	REVISION
CF	CF	AS NOTED	0
PROJECT	SHEET NO.		
CKD-HYD-294	C04		



TYPICAL CROSS SECTION - TRAFFICABLE
SCALE 1:10 (A1)



DESIGN DATA

DESIGN RAINFALL EVENT:	1:20 ARI UP TO 72 hrs
SOIL PERMEABILITY:	2.5m/d (108mm/hr)
LENGTH:	10m
WIDE:	2.0m
DEPTH:	0.6 m

STORMWATER INFILTRATION TRENCH DETAIL

NTS

DIAL BEFORE YOU DIG

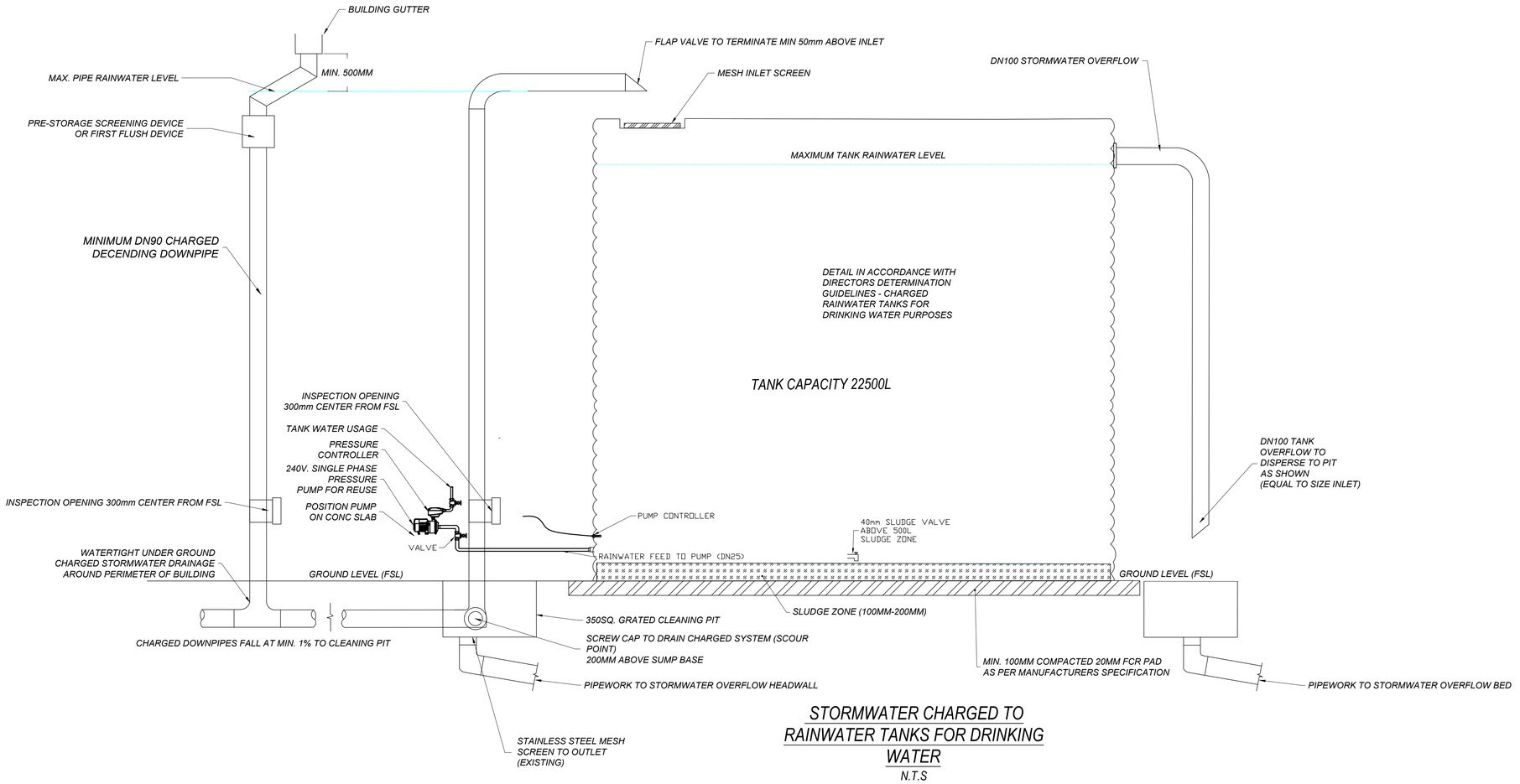
REV	DESCRIPTION	DATE
0	FOR APPROVAL CF	01/07/2025

Sorell Council
Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf
Plans Reference:P2
Date Received:7/07/2025

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

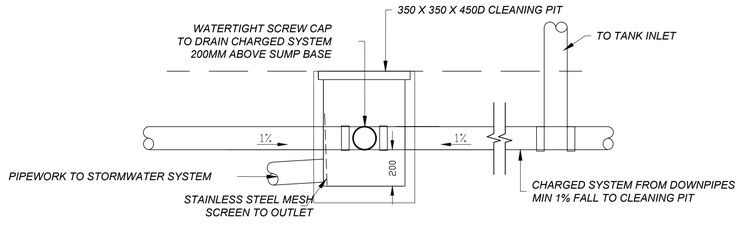
PROPOSED ADDTIONS AND ALTERATIONS
CLIENT: MR AND MRS OBOD
4 WIBAR STREET, DODGES FERRY 7173
DRAWING TITLE
HYDRAULIC CONSTRUCTION DETAILS 1

SCALE 1:100
DESIGNED CF | DRAWN CF | SCALE AS NOTED
PROJECT CKD-HYD-294 | SHEET NO. C05 | REVISION 0



STORMWATER CHARGED TO RAINWATER TANKS FOR DRINKING WATER

N.T.S



CLEANING PIT DETAIL

SCALE 1:20 (A1)

NOT FOR CONSTRUCTION

DIAL BEFORE YOU DIG

REV	DESCRIPTION	DATE
0	FOR APPROVAL CF	01/07/2025

REV	DESCRIPTION	DATE

Sorell Council
Development Application: Response to Request for Information - 4 Wibar Street, Dodges Ferry - 5.2025.122.1 - P2.pdf
Plans Reference:P2
Date Received:7/07/2025

FYSH DESIGN
UNIT 4, 160 BUNGANA WAY
CAMBRIDGE TAS
PH: 0414 149 394
ACCREDITATION: BSD LICENCE NO. 479819732

PROPOSED ADDTIONS AND ALTERATIONS

CLIENT: MR AND MRS OBOD
4 WIBAR STREET, DODGES FERRY 7173

DRAWING TITLE
HYDRAULIC CONSTRUCTION DETAILS 2

SCALE 1:100

DESIGNED	DRAWN	SCALE
CF	CF	AS NOTED
PROJECT	SHEET NO.	REVISION
CKD-HYD-294	C06	0

ON-SITE WASTEWATER REPORT

Mr & Mrs Obod

4 Wibar Street Dodges Ferry

CKDesign Reference: ***CKD-HYD-294***

Date:03/07/2025

For Approval Rev 0

TABLE OF CONTENTS

1. INTRODUCTION AND SCOPE OF ENGAGEMENT

Fysh Design has been engaged to provide an assessment of an existing on-site wastewater septic system to service the existing dwelling at 4 Wibar Street Dodges Ferry

The following report outlines the methodology and assumptions used for the existing septic wastewater system

2. WASTEWATER DESIGN

Site Conditions

Client: Sheds n Homes

Address: Lot 8 Scenic Hill Road, Huonville

Site Area – Approx 600sqm

Building Type –existing dwelling

Drainage lines & Water Courses – Good drainage with overland flow run off directly from the northwest

Vegetation – Mixed native grass species, bushland trees

Rainfall in the previous 7 days – 26.5mm

Average slope approx. Moderate slope of 24% (13 deg) to the Southeast

Domestic water supply – Rainwater tank supply

Background Information

Mapped Geology – Mineral Resources Tasmania 1:250,000

Rock Type – Sand

Soil Depth – 1.5 to sand refusal

Local Authority – Sorell Council

Landslide Zoning – Coastal inundation zone

Local Services – Onsite wastewater disposal, Rainwater tank supply

Wastewater Classification and Recommendations

According to AS1547.2012 for on- site wastewater management the soil in the property is classified as **Sand and Gravels (Category 1).**

A site inspection was performed to excavate and inspect the existing concrete septic tank and treatment trench currently being used by the existing dwelling located at 4 Wibar Street Dodges Ferry.

It was found an existing buried concrete tank with approximately 2800L is presently working with no issues at all (2460L X 1200 Dia) dispersing to a 10m long X 1m wide infiltration trench which on excavation seems to be performing and treating the existing wastewater from the house with no issues.

Figure 1: Exposed existing concrete septic tank

Figure 2: Exposed existing wastewater treatment trench

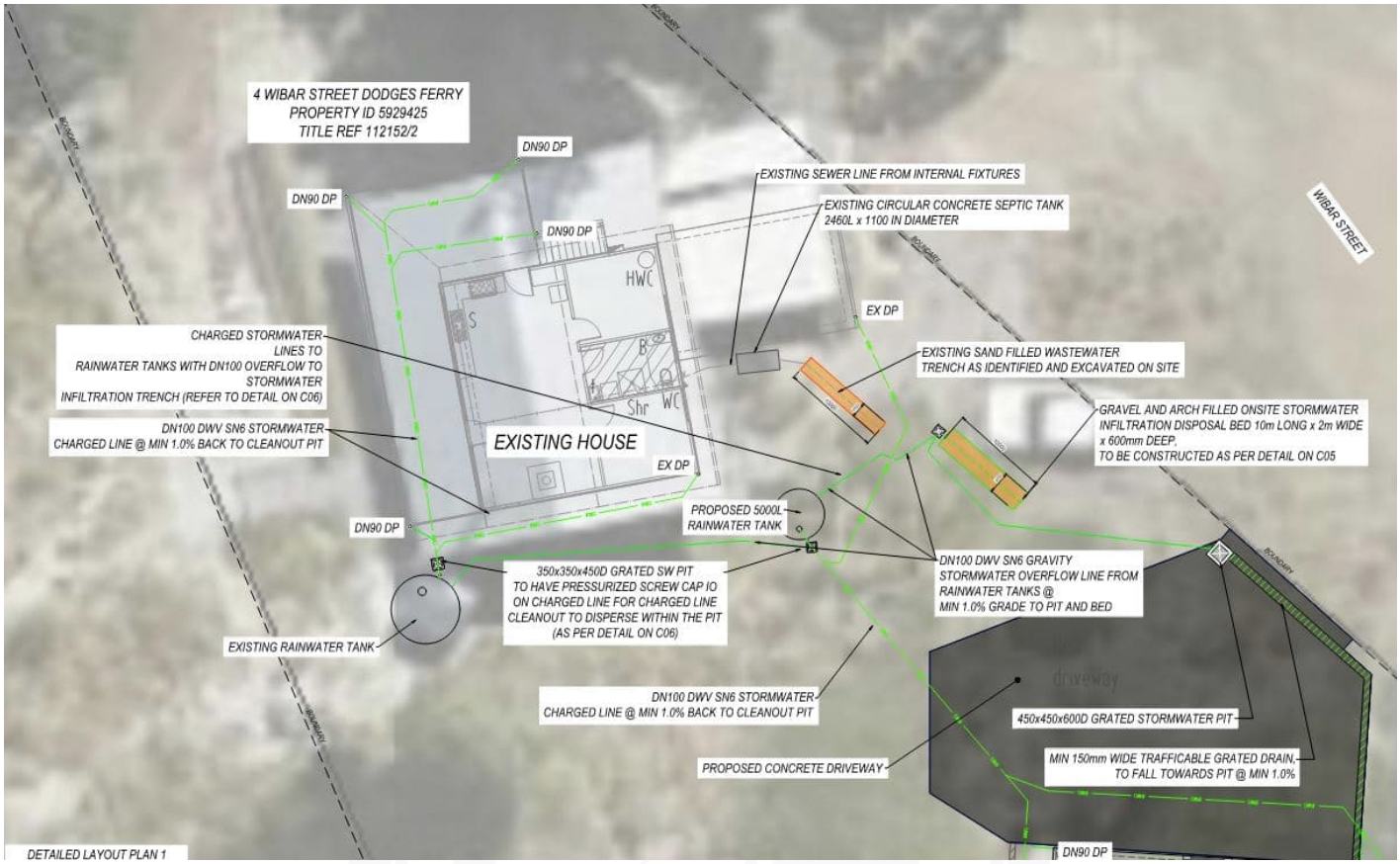


Figure 3: Existing septic system layout

3. CONCLUSION

It is my opinion based on demands on the existing dwelling not changing (no further bedrooms or fixtures being added) and the existing system is functioning fine, I have no issues with supporting the existing system for continual use.

An additional assessment would be required if any additional bedrooms or fixtures were to be added to the existing dwelling or the proposed shed.

Please contact cfysh@fyshdesign.com.au if you require any additional information.

Yours sincerely

Chris Fysh

Director

Fysh Design

Building Services Designer Licence: 479819732

Mob: 0414 149 394

Email: cfysh@fyshdesign.com.au

FYSH DESIGN
CIVIL HYDRAULIC