NOTICE OF PROPOSED DEVELOPMENT

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

SITE: Lot 501 Primrose Sands Road, Primrose Sands

PROPOSED DEVELOPMENT:
FOOD SERVICES - CAFE

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 26th May 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 26th May 2025.**

APPLICANT: **Pinnacle Drafting and Design**

APPLICATION NO: **DA 2025 / 53 1**
DATE: **09 May 2025**

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

Full description of Proposal:	*Use:* Cafe *Development:* cafe *Large or complex proposals should be described in a letter or planning report.*
Design and construction cost of proposal:	$ 60,000

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

Location of proposed works:	Street address: 432 Primrose Sands Rd Suburb: Primrose Sands Postcode: 7173 Certificate of Title(s) Volume: 17783 Folio: 501

Current Use of Site	vacant land

Current Owner/s:	Name(s) Primrose Developments Company Pty Ltd

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/egineering/

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: 04/03/2025

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: 5.2025.53.1 - Development Application - 432 Primrose Sand Road, Primrose Sands - P1.pdf
Plans Reference:P1
Date Received:4/03/2025

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

GEOTECH 25-044

ROCK SOLID GEOTECHNICS PTY LTD
Peter Hofto
163 Orielton Road
Orielton
TAS 7172

0417 960 769
peter@rocksolidgeotechnics.com.au

10/4/2025

Geotechnical Assessment / Classification for Proposed Residential Development

432 Primrose Sands Road, Primrose Sands.

CLIENT: Primrose Development Co Pty Ltd
Peter Simmonds primroseeleven@icloud.com

CONTENTS

SUMMARY

It is proposed to construct a small café and neighbouring shed on the 115400m^2 vacant block at 432 Primrose Sands Road. The café will be accessed directly from Primrose Sands Road (Figure 1, Plate 1). The site is underlain by deep sand.

The site is classified as Class 'A' in accordance with AS2870.

The following Wind Load Classifications (AS4055-2012: Wind Loads for Housing) are appropriate.

• Terrain Category Classification	TC2.5	Terrain with a few obstructions
• Shielding Classification	PS	Partial Shielding
• Topographic Classification	T1	
• Wind Load Classification	N2	

INVESTIGATION

The Tasmanian Geological Survey 1:50000 Geological Atlas 'Sorell' indicates that the site is underlain by Quaternary aged windblown sands.

A site investigation was completed on Friday 28 March, 2025. This included the augering of four test holes to assess the site for foundation, onsite wastewater, and stormwater conditions (4WD mounted SAMPLA25 mechanical auger with 100mm diameter solid flight augers). The locations of the auger holes are marked on Figure 1.

This area is undulating in profile, but the shed / café site generally slopes shallowly to the south at 2 degrees. The site is covered in native grasses, shrubs, and semi-mature trees.

The profiles encountered in the Test Holes (Plate 2) consisted of:

0.00 – 0.20m	SAND: fine grained, grey, trace roots and rootlets – TOPSOIL
0.20 – 2.10m	SAND: fine grained, greyish brown, dry
2.10m+	Holes terminated at required depths – 2.10m.

Groundwater was not encountered in any of the Test Holes.

Plate 1 – Looking to the west from Primrose Sands Road at the proposed café site.

Plate 2 – Café site - Looking to the north (Test Hole #1).

STORMWATER

The Sorell Council have requested;

- Demonstrate that the development can comply with SOR-S2.7.2 A1 or P1 (Stormwater management).
- P1 (Performance Criteria) states;
  Development must be capable of accommodating an on-site stormwater management system adequate for the development, having regard to:
  a) Topography of the site;
  b) The size and shape of the site;
  c) Soil conditions;
  d) Any existing buildings and any constraints imposed by the existing development of the site;
  e) Any area of the site covered by impervious surfaces;
  f) Any watercourses on the land;
  g) Stormwater quality and quantity management targets identified in the *State Stormwater Strategy 2010*; and
  h) And advice from a suitably qualified person on the seasonal water table at the site, risks of inundation, land instability or coastal erosion.

It is proposed to install two 24k litre water tanks that will accept rainwater from the café and shed. This water will be used in the café and bathroom. It is proposed to install a new stormwater (SW) trench to the south of the water tank to dispose of any water that overflows from the tanks. The site slopes at 1-2 degrees to the southwest, is covered in native grass, and minor trees and shrubs.

As specified in the above foundation classification the site is underlain by deep, dry sand (to greater than 2.10m depth), and groundwater was not encountered in any of the test holes completed.

Response to the P1 (Performance Criteria) in blue;

Development must be capable of accommodating an on-site stormwater management system adequate for the development, having regard to:

a) Topography of the site; Shallow slopes 2° or less.
b) The size and shape of the site; 115400m^2 site.
c) Soil conditions; Deep, dry sand.
d) Any existing buildings and any constraints imposed by the existing development of the site; No existing buildings on the site.
e) Any area of the site covered by impervious surfaces; No areas covered by impervious surfaces other than the proposed buildings.
f) Any watercourses on the land; See Figure 2. Development site a minimum of 50m from the defined Waterway and Coastal Protection Area.
g) Stormwater quality and quantity management targets identified in the *State Stormwater Strategy 2010*; and Stormwater consist of rainwater collected from the roofs of the café and shed.
h) Any advice from a suitably qualified person on the seasonal water table at the site, risks of inundation, land instability or coastal erosion. Seasonal water table not encountered in any of the test holes (completed to 2.10m depth). Land not affected by inundation, instability or coastal erosion.

It is proposed to install a single trench for the discharge from the rainwater tanks.

The SW trench will need to be protected from vehicular access as driving over the trench may destroy the pipework.

It is likely that the tanks will only overflow during the wetter, winter months.

It is proposed to install a single 8m long and 1m wide trench to accept the overflow water from the rainwater tanks.

The trench will consist of 230mm trench arch in drain gravel (Figure 3).

Peter Hofto
ROCK SOLID GEOTECHNICS P/L

CONDITIONS OF INVESTIGATION

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

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

The results & interpretation of conditions presented in this report are current at the time of the investigation only. The investigation has been conducted in accordance with the specific client's requirements &/or with their servants or agent's instructions.
This report contains observations & interpretations based often on limited subsurface evaluation. Where interpretative information or evaluation has been reported, this information has been identified accordingly & is presented based on professional judgement. RSG does not accept responsibility for variations between interpreted conditions & those that may be subsequently revealed by whatever means.

Due to the possibility of variation in subsurface conditions & materials, the characteristics of materials can vary between sample & observation sites. RSG takes no responsibility for changed or unexpected variations in ground conditions that may affect any aspect of the project. The classifications in this report are based on samples taken from specific sites. The information is not transferable to different sites, no matter how close (ie. if the development site is moved from the original assessment site an additional assessment will be required). It is recommended to notify the author should it be revealed that the sub-surface conditions differ from those presented in this report, so additional assessment & advice may be provided.

Investigations are conducted to standards outlined in Australian Standards:

- AS1726-1993: Geotechnical Site Investigations
- AS2870-2011: Residential Slabs and Footings
- AS4055-2012: Wind Loads for Housing
- AS1547-2012: Onsite Domestic Wastewater Management

& as specified in 'Guidelines for Geotechnical Assessment of Subdivisions and Recommended Code of Practise for Site Classification to AS2870 in Tasmania' - Institute of Engineers, Tasmanian Division.

All new developments should subject to strict site maintenance. Attention is drawn to the enclosed information reproduced with the permission from Standards Australia:

- CSIRO Information Sheet No. BTF18 – 'Guide to home-owners on foundation maintenance & footing performance'.

Any assessment that has included an onsite wastewater system design will require a further site visit / inspection once the system has been installed. After the inspection to verify that the system has been installed as per RSG's design a statement will be provided. An additional fee applies for the site visit & issuing the certificate.

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

PETER HOFTO
ROCK SOLID GEOTECHNICS PTY LTD

Legend

- Electrical Connection
- Electrical Turret
- Sewer Connection
- Stormwater Connection
- Telstra Connection
- Telstra Pit
- Water Meter
- Water Stop Valve
- Fire Hydrant

Surface Water Drainage

Ground to fall away from building in all directions in compliance with AS2870 & N C C 2022 Volume 1.

Surface water, resulting from a storm having an annual exceedance probability of 1%, must not enter the building.

Limitations

R1F2 does not apply to:
(a)(a Class 7 or 8 building where in the particular case there is no necessity for compliance; or
(b)a garage, toilet/bed, sanitary compartment, or the like, forming part of a building used for other purposes; or an open spectator stand or open-deck carpark.

Survey Notes from Surveyor

This plan and associated digital model is prepared for P Simmonds from a combination of field survey and existing records for the purpose of designing new constructions on the land and should not be used for any other purpose.
The title boundaries as shown on this plan were not marked at the time of the survey and have been determined by plan dimensions only and not by field survey. No measurements or offsets are to be derived between the features on this plan and the boundary layer. The relationship between the features in this model and the boundary layers cannot be used for any set out purposes or to confirm the position of the title boundaries on site.
Services shown have been located where visible by field survey. Services denoted as being "Per DBYD only" are approximate and for illustrative purposes only. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.
This note forms an integral part of the Plan/Data. Any reproduction of this plan/model without this note attached will render the information shown invalid.

Building Area

Dwelling	84.31
Outdoor Extension	28.69
Verandah / Deck	0.00
	113.00 m²

PINNACLE

Location Plan

1:1000

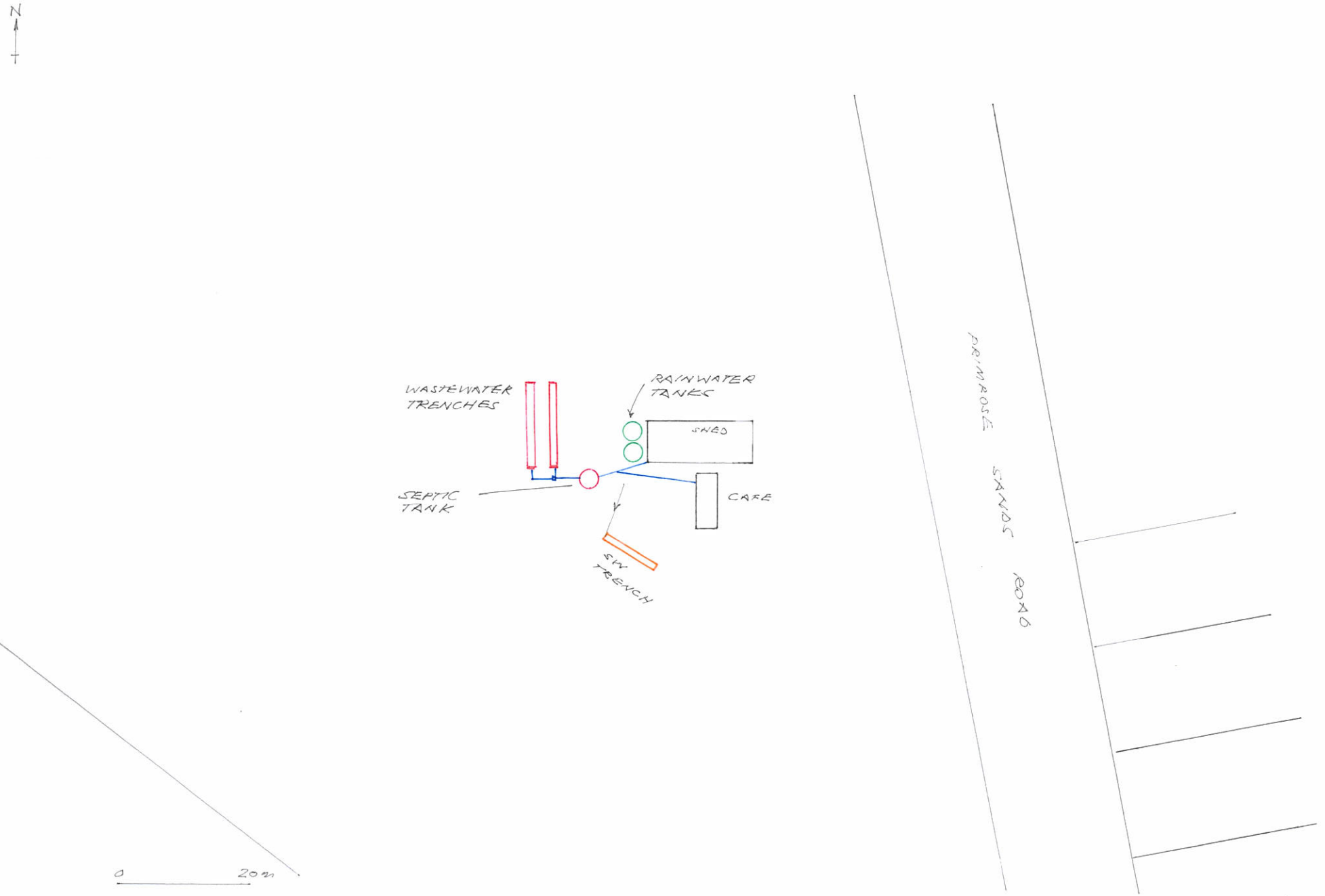
bdao

LOCALITY MAP
CAFÉ + SHED

GDA94 MGA55 : 554548E, 5251519N 1:846 **Disclaimer and Copyright Notice**

WATERWAY + COASTAL PROTECTION ZONE

GDA94 MGA55 : 554501E, 5251651N 1:1,693 **Disclaimer and Copyright Notice**


N
WASTEWATER TRENCHES
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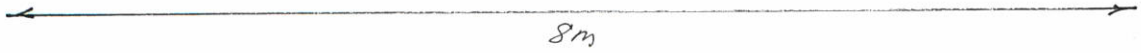
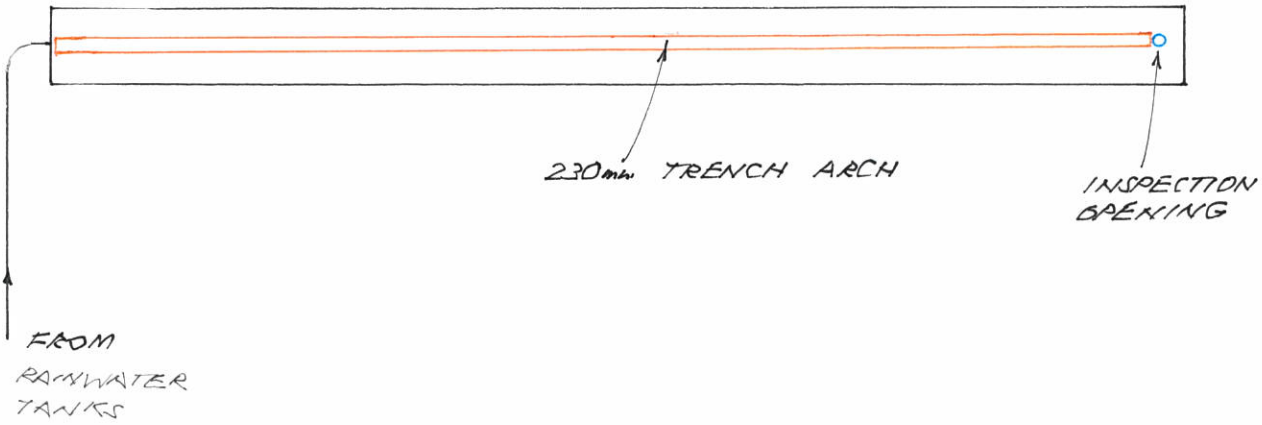
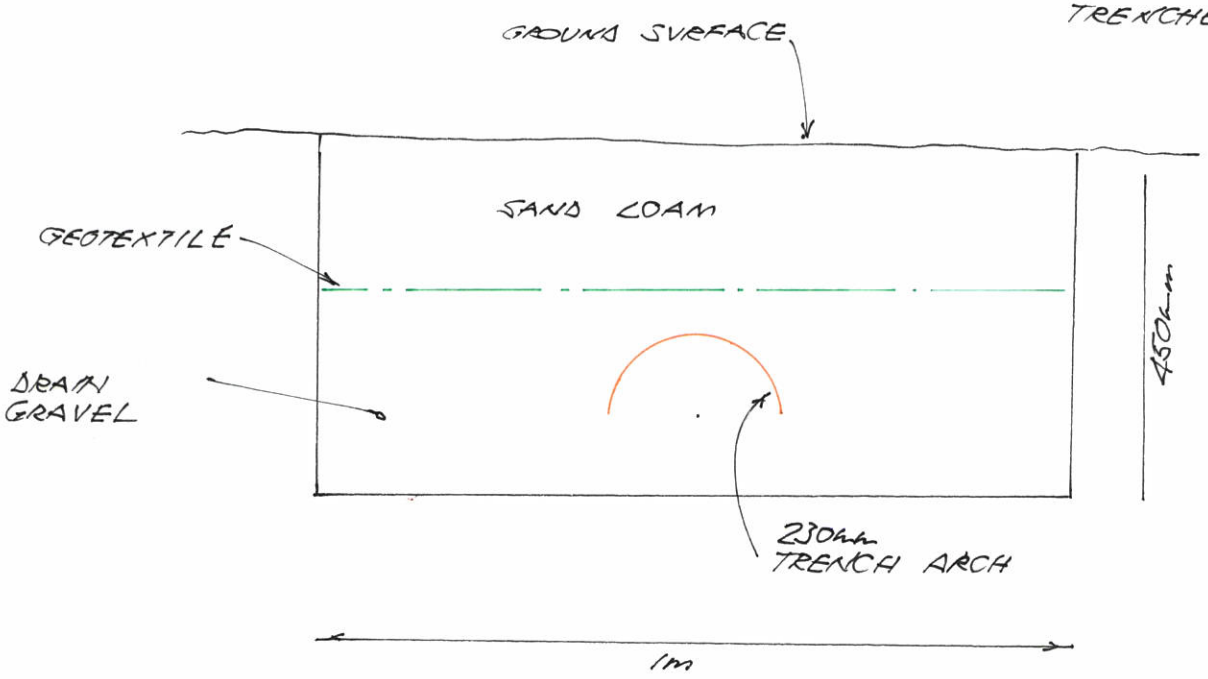
PLAN
SW TRENCHE





CROSS-SECTION
TRENCHES



CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form 55

To: Primrose Development Co Pty Ltd *Owner /Agent*

Peter Simmonds *Address*

primroseeleven@icloud.com *Suburb/postcode*

Qualified person details:

Qualified person: Peter Hofto - Rock Solid Geotechnics P/L

Address: 163 Orielton Road

Orielton 7172

Phone No: 0417960769

Fax No:

Licence No:

Email address: peter@rocksolidgeotechnics.com.au

Qualifications and Insurance details: BSc (Hons) – Geology / Geophysics
PI Insurance – Lloyds Underwriting
PL Insurance – CGU Insurance Lt
(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: Geotechnical Assessments
(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: 432 Primrose Sands Road, Primrose Sands

Lot No:

Certificate of title No:

The assessable item related to this certificate: Geotechnical Assessment – Foundations and Stormwater

(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 Assessment
(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:

Relevant calculations: AS2870

References:

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

Scope and/or Limitations

I certify the matters described in this certificate.

Qualified person:

Signed:

Certificate No: GEOTECH 25-044

Date: 10/4/2025

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
1	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.

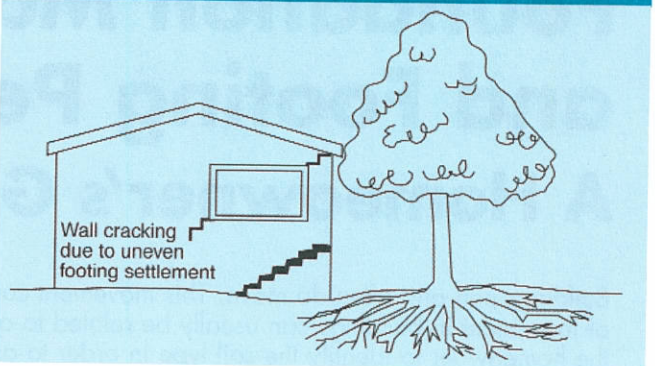
Seasonal swelling/shrinkage in clay

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.

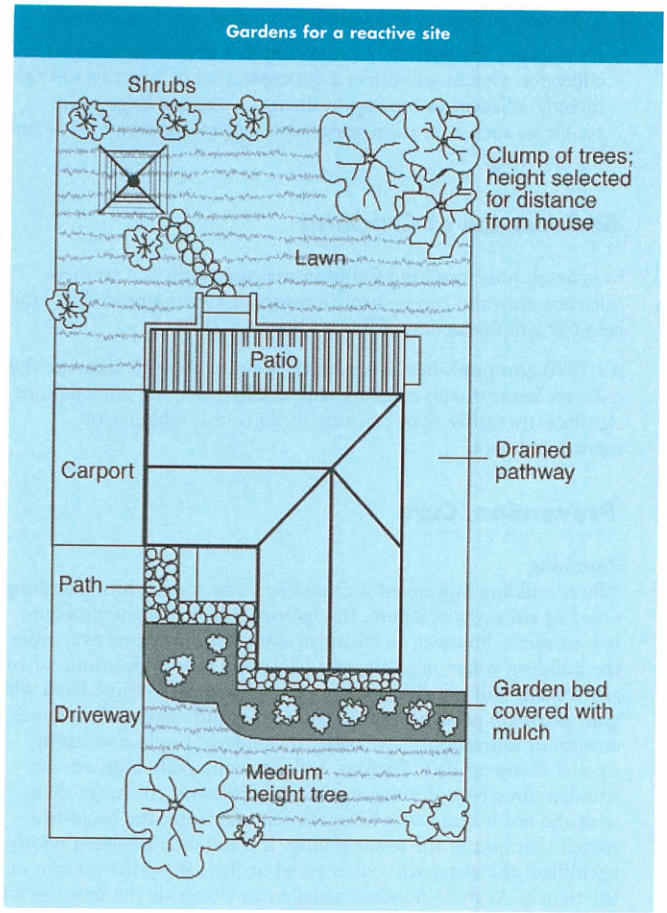
It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

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.

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ONSITE WASTEWATER SYSTEM DESIGN – 432 Primrose Sands Road, Primrose Sands

Below find the assessment to determine of the type and size of wastewater treatment system, and the allocation of a Land Application Area (LAA) for a proposed café at 432 Primrose Sands Road, Primrose Sands (Figure 1). This assessment should be read in conjunction with Site & Soil Evaluation Report (GEOTECH 25-044) - enclosed.

It is proposed to construct a small café and neighbouring shed on the 115400m^2 vacant block at 432 Primrose Sands Road.

Vacant land immediately to the west of the proposed café and shed was assessed for onsite wastewater and stormwater suitability. This area is undulating in profile, but generally slopes shallowly to the west at 1-2 degrees. The site is covered in native grasses, shrubs, and semi-mature trees. The profiles encountered in the Test Holes (Plate 3) consisted of:

0.00 – 0.20m	SAND: fine grained, grey, trace roots and rootlets – TOPSOIL
0.20 – 2.10m	SAND: fine grained, greyish brown, dry
2.10m+	Holes terminated at required depths – 2.10m.

Groundwater was not encountered in any of the Test Holes.

The site is classified as Class 1 (SAND) with an Indicative Permeability of 3.0m/d and a very conservative Design Loading Rate (DLR) of 20mm/day (Primary Treated Effluent).

Plate 3 – Test Hole #3 – looking to the east.

The Sorell Council have requested;

- Demonstrate that the development can comply with SOR-S2.7.1 A1 or P1 (On-site wastewater).
- A1 (Acceptable Solution) states;

  Development must:

  a) Not cover more than 20% of the site;

  b) Not be located on land shown on an overlay map in the relevant Local Provisions Schedule, as within:

  I. A flood-prone area;

  II. A landslip area;

  III. A coastal erosion hazard area;

  IV. A waterway and coastal protection area; or

  V. A coastal inundation hazard area;

  c) Be located on a site with a soil depth of at least 1.5m;

  d) Be located on a site where the average gradient of the land does not exceed 10%; and

  e) In the case of a dwelling, provide 65m2 of land for wastewater land application area per bedroom which is located at least 1.5m from an upslope or side slope boundary and 5m from a downslope boundary.

The following design is compliant with the Acceptable Solution) as defined above.

Compliance with statutory requirements - *Director's Guidelines for Onsite Wastewater Systems*.

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

A2 Horizontal separation distance from downslope surface water to a LAA must comply with (a) or (b) (a) be no less than 100m; or (b) be no less than the following: (i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to down slope surface water.	P2 Horizontal separation distance from downslope surface water to a LAA must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R; b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A2 Primary treated effluent. Setback required; 15m + (7m x 2^{o}) = 29m
A3 Horizontal separation distance from a property boundary to a LAA must comply with either of the following: (a) be no less than 40m from a property boundary; or (b) be no less than: (i) 1.5m from an upslope or level property boundary; & (ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.	P3 Horizontal separation distance from a property boundary to a LAA must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A3 LAA > 1.5m from eastern property boundary. LAA > 40m from N, W, and S property boundaries. 1-2^{0} slope. Setback required from property boundaries; 2m x 2^{o} = 4m
A4 Horizontal separation distance from a downslope bore, well or similar water supply to a LAA must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient.	P4 Horizontal separation distance from a downslope bore, well or similar water supply to a LAA must comply with all of the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable.	Complies with A4 No known potable bores within 50m of the site.
A5 Vertical separation distance between groundwater & a LAA must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.6m if secondary treated effluent	P5 Vertical separation distance between groundwater and a LAA must comply with the following: (a) Setback must be consistent with AS/NZS 1547 Appendix R; and (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable.	Complies with A5 Groundwater not encountered. Test holes to 2.10m depth.
A6 Vertical separation distance between a limiting layer & a LAA must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.5m if secondary treated effluent.	P6 Vertical setback must be consistent with AS/NZS1547 Appendix R.	Complies with A6 Limiting layer not encountered.
A7 Nil	P7 A wastewater treatment unit must be located a sufficient distance from buildings or neighbouring properties so that emissions (odour, noise or aerosols) from the unit do not create an environmental nuisance to the residents of those properties.	Complies with P7

WASTEWATER SYSTEM DESIGN:

It is proposed to collect all the wastewater (black and greywater) from the café and bathroom in a new, 4500 litre, dual purpose, septic tank (fitted with an outlet filter). The effluent leaving the septic tank is to be gravity fed into two absorption trenches via a distribution box.

The distribution box should be solidly founded on a 300mm deep bed of compacted FCR, and should be securely held in level position with a concrete plinth. The distribution box should be fitted with AES 'Speed Levellers' to attain equal distribution of effluent to the trenches (Appendix 2).

The café will be set up as a facility for patrons to drop in and purchase coffee and premade snacks. Coffee/tea will be made on site, but food will not be prepared on site. It is highly unlikely that every patron will use the toilet whilst purchasing coffee / snacks.

The size of the absorption trenches is conditional on the wastewater load entering the system and the permeability of the site.

• 1 Staff	30 litres/day	
• Washing up / cleaning	100 litres/day	
• 50 patrons/day using the toilet	300 litres/day	(6 litres/person/toilet use)
• Design Loading Rate (DLR)	20mm/day	(Primary treated effluent)
• Wastewater Flow Rate	430 litres / day	
• DLR	20 litres / m^2 / day	
• Basal Area of absorption trenches	430 / 20 = 21.5m^2	

It is proposed to construct two 12m long x 1m wide trenches. The large capacity septic tank will provide both additional retention capacity and future proof any expansion if required (it would be simple to add extra absorption trenches to the site).

The LAA can be used for light foot traffic, but should not be driven on or used for any purpose that could damage the subsurface pipework.

CONSTRUCTION AND INSTALLATION NOTES FOR THE ABSORPTION TRENCHES:

- The area designated for the trenches should be marked on the ground, and stripped of vegetation.
- The trenches should be dug to a minimum depth of 450mm, and the base flattened.
- Place 100mm thickness of 12-25mm diameter distribution aggregate on the base layer and flatten.
- Place slotted (at 4 & 8 O'clock)100mm PVC pipe on the aggregate and level.

- Add inspection risers and screw caps at the end of each run of 100mm pipe.
- Cover the PVC pipe with 450mm plastic trench arch.
- Cover the arches with 50mm of distribution aggregate.
- Cover with geotextile fabric.
- Topsoil / sand should be added to cover the geotextile fabric and blend the top surface of the area with the natural ground level.

A cutoff drain will not be required.

There is sufficient available land for reserve trenches if required in the future.

Peter Hofto
Rock Solid Geotechnics Pty Ltd

SITE AND SOIL EVALUATION REPORT

Soil Category:		
(as stated in AS/NZS 1547-2000)	Modified Emerson Test Required	No
1,...2,...3,...4,...5,...6	If Yes, Emerson Class No.	
Measured or Estimated Soil Permeability (m/d):	1.0m/d	
Design Loading Rate: (mm/d)	20 mm/day	
Geology:	Quaternary sediments.	

Slope:	5 degrees
Drainage lines / water courses:	Nil
Vegetation:	Grass
Site History: (land use)	Vacant block
Aspect:	North
Pre-dominant wind direction:	Northwest to southwest
Site Stability: Will on-site wastewater disposal affect site stability?	No
Is geological advice required?	No
Drainage/Groundwater:	Not encountered
Depth to seasonal groundwater (m):	Not Encountered
Are surface or sub-surface drains required upslope of the land application area	No
Water Supply:	
☑ Rainwater Tanks	
Date of Site Evaluation:	28/3/2025
Weather Conditions:	Fine

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Primrose Development Co Pty Ltd
primroseeleven@icloud.com

10/4/2025

Loading Certificate for Onsite Wastewater System - 432 Primrose Sands Road, Primrose Sands

1 System Capacity:

- (medium/long term) 430 litres/day

2 Design Criteria Summary:

- Primary Treated Effluent 4500 litre (minimum) dual-purpose septic tank.
- Soil Category Class 1 SAND
- Land Application System Absorption Trenches (2 x 12m long and 1.0m wide)

3 Reserve Area:

- Suitable available reserve areas.

4 Variation from design flows etc:

- The system has capacity for an additional 20% of the predicted loads.

5 Consequences of overloading the system:

- Long term over use may result in overloading of the system, surfacing of effluent, public and environmental health nuisances, pollution of surface water etc.

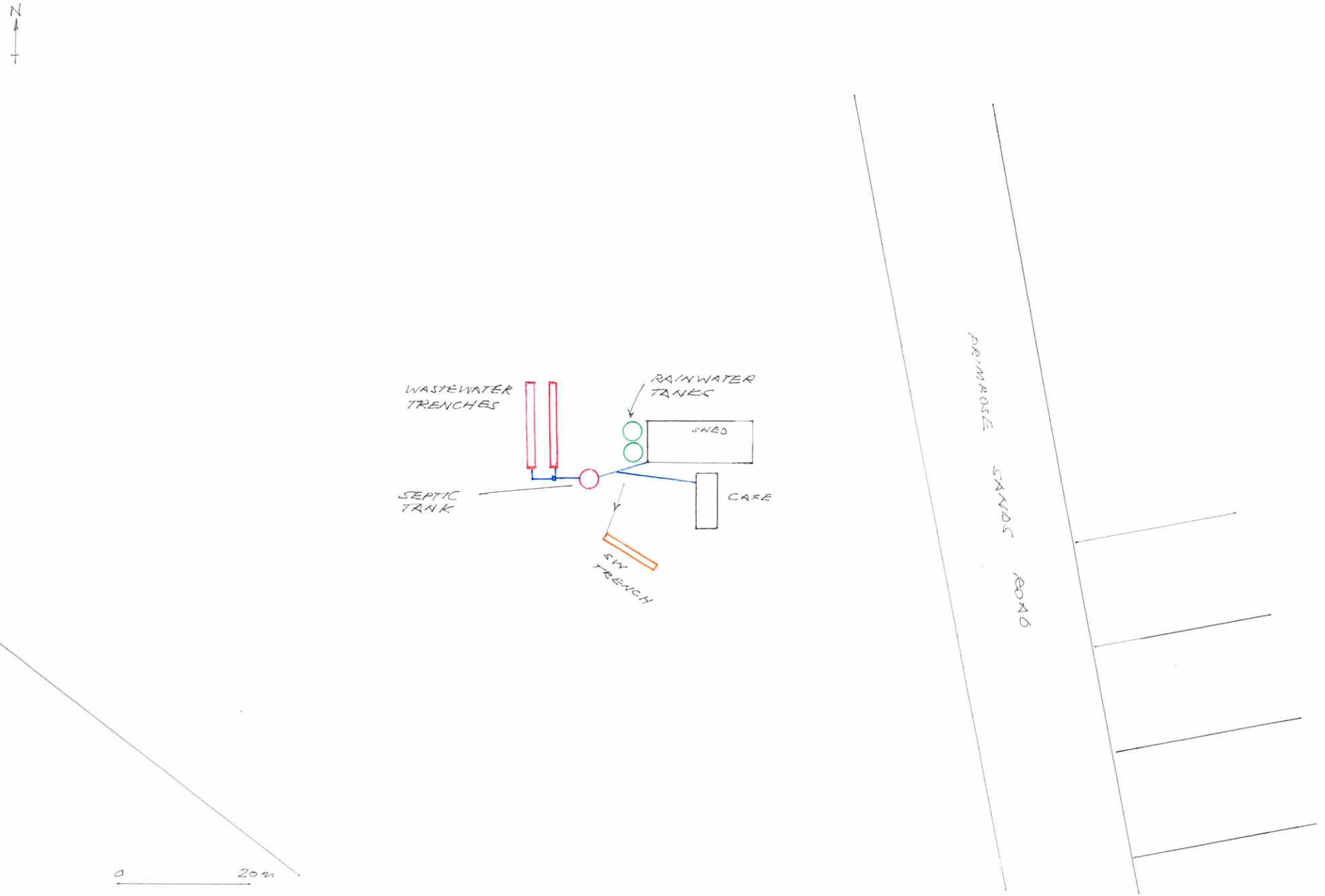
6 Consequences of under-loading the system:

- Nil.

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

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

Peter Hofto
Rock Solid Geotechnics Pty Ltd


N
WASTEWATER TRENCHES
RAINWATER TANKS
SHED
SEPTIC TANK
CAFE
SW TRENCH
PRIMROSE SANDS ROAD
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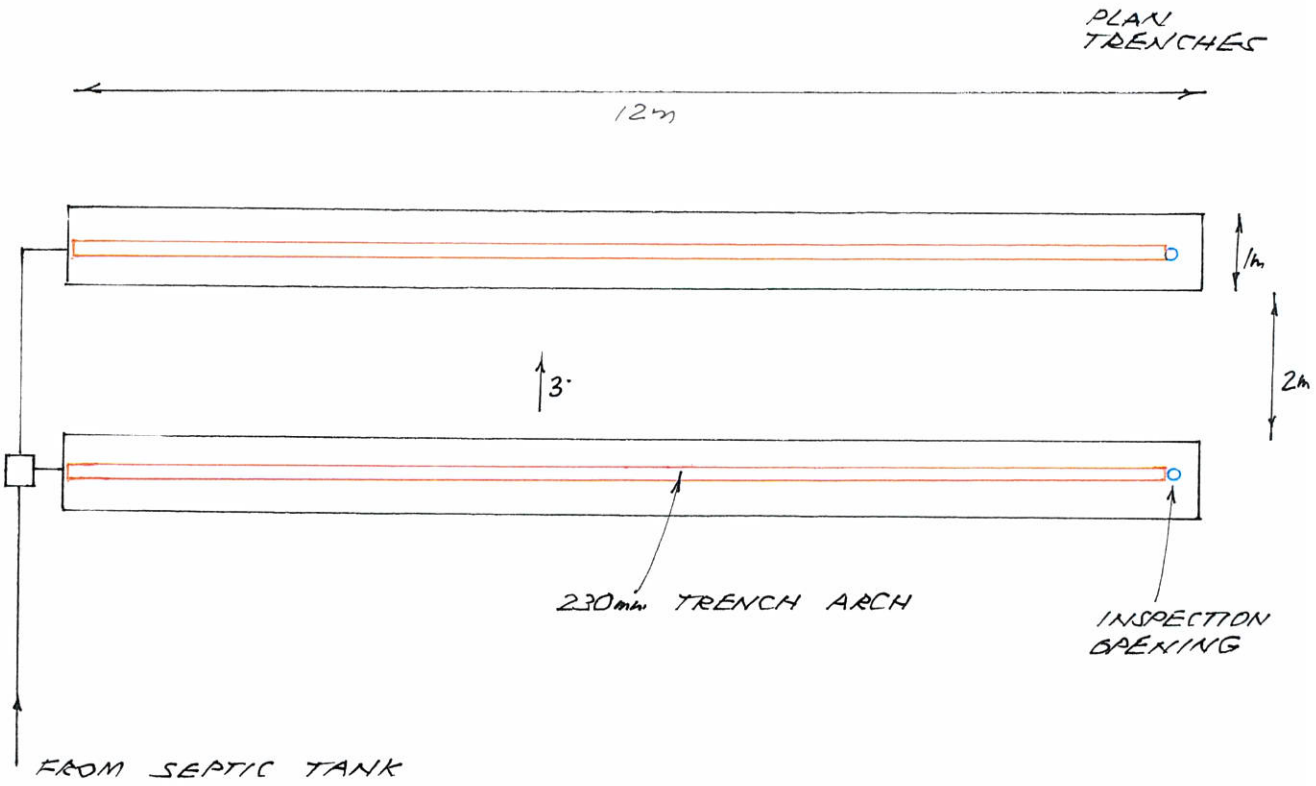
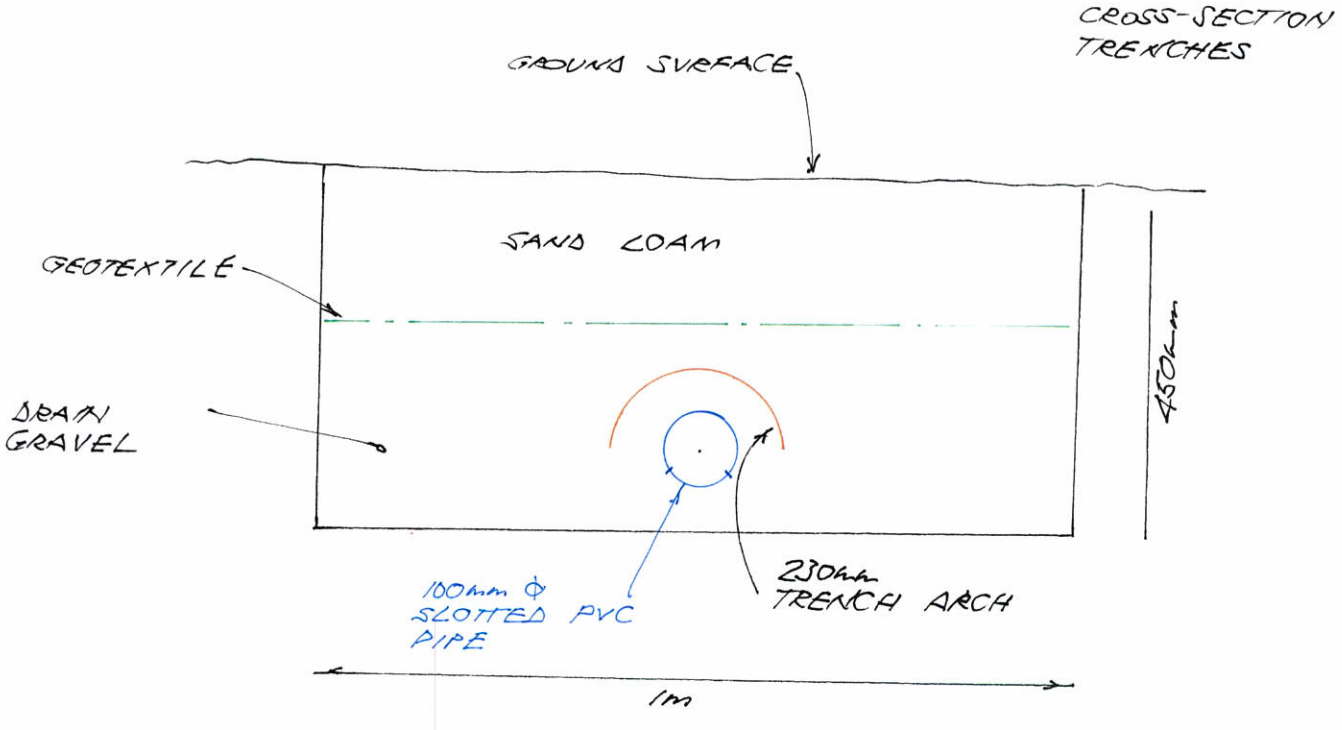
20m


PLAN
TRENCHES
12m
1m
2m
3°
230mm TRENCH ARCH
INSPECTION
OPENING
FROM SEPTIC TANK


CROSS-SECTION
TRENCHES
GROUND SURFACE
SAND LOAM
GEOTEXTILE
DRAIN
GRAVEL
450mm
100mm Φ
SLOTTED PVC
PIPE
230mm
TRENCH ARCH
1m

CONDITIONS OF INVESTIGATION

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

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

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

Investigations are conducted to standards outlined in Australian Standards:

- AS1547-2012: Onsite Domestic Wastewater Management

& as specified in 'Guidelines for Geotechnical Assessment of Subdivisions and Recommended Code of Practise for Site Classification to AS2870 in Tasmania' - Institute of Engineers, Tasmanian Division.

Any assessment that has included an onsite wastewater system design will require a further site visit / inspection once the system has been installed. After the inspection to verify that the system has been installed as per RSG's design a statement will be provided. An additional fee applies for the site visit & issuing the certificate.

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

PETER HOFTO
ROCK SOLID GEOTECHNICS PTY LTD

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Primrose Development Co Pty Ltd *Owner name*

Peter Simmonds *Address*

primroseeleven@icloud.com *Suburb/postcode*

Designer details:

Name: Peter Hofto

Category: Building Services Designer Hydraulic - Restricted

Business name: Rock Solid Geotechnics P/L

Phone No: 0417960769

Business address: 163 Orielton Road

Orielton 7172

Fax No:

Licence No: CC6159I

Email address: peter@rocksolidgeotechnics.com.au

Details of the proposed work:

Owner/Applicant Primrose Development Co Pty Ltd

Designer's project reference No. GEOTECH 25-044

Address: 432 Primrose Sands Road, Primrose Sands

Lot No:

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

Description of work:

ONSITE WASTEWATER MANAGEMENT SYSTEM

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

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

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

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

Other details:

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 10/4/2025
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 10/4/2025
Computations:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 10/4/2025
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by:	Date:

Standards, codes or guidelines relied on in design process:

AS 1547:2021 On-site domestic wastewater management

Director's Guidelines for Onsite Wastewater Management

Any other relevant documentation:

Attribution as designer:

I Peter Hofto – ROCK SOLID GEOTECHNICS P/L ..... am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)	*Signed*	*Date*
Designer:	Peter Hofto		10/4/2025
Licence No:	CC6159I		

Assessment of Certifiable Works: (TasWater)

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

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

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

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

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

Certification:

I .....Peter Hofto – ROCK SOLID GEOTECHNICS P/L..... being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

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

	Name: (print)	*Signed*	*Date*
Designer:	Peter Hofto		10/4/2025

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Changes List			
ID	**Description of change**	**Date Changed**	**Designer**
Ch - 01	Council RFI	10/04/2025 12:31 PM	JN
Ch - 02	Added WW & SW details	29/04/2025 2:37 PM	JN

Note: The images provided are artistic representations only and should not be used as references for final colours, finishes, or external/internal features.

432 Primrose Sands Rd, Primrose Sands

Owner(s) or Clients	Primrose Development Company Pty Ltd	Title Reference	17783/501
Building Classification	6	Zoning	Rural Living Zone D
Designer	Jason Nickerson CC6073Y	Land Size	115400m^2
Total Floor Area (Combined)	68.63m^2	Design Wind Speed	TBA
Alpine Area	N/A	Soil Classification	TBA
Other Hazards	Bushfire-Prone Area, Natural Assets Code, Safe Guarding of Airports Code	Climate Zone	7
		Corrosion Environment	Low
(e.g.. High wind, earthquake, flooding, landslip, dispersive soils, sand dunes, mine subsidence, landfill, snow & ice, or other relevant factors)		Bushfire Attack Level (BAL)	TBA

ID	Sheet Name	Issue
A.01	Location Plan	DA - 02
A.02	Site Plan	DA - 02
A.03	Floor Plan & Elevations	DA - 02

Legend

- Electrical Connection
- Electrical Turret
- Sewer Connection
- Stormwater Connection
- Telstra Connection
- Telstra Pit
- Water Meter
- Water Stop Valve
- Fire Hydrant

Surface Water Drainage

Ground to fall away from building in all directions in compliance with AS2870 & N.C.C 2022 Volume I.

Surface water, resulting from a storm having an annual exceedance probability of 1%, must not enter the building.

Limitations

F1P2 does not apply to-
(a) a Class 7 or 8 building where in the particular case there is no necessity for compliance; or
(b) a garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes; or an open spectator stand or open-deck carpark.

Survey Notes from Surveyor

This plan and associated digital model is prepared for P.Simmonds from a combination of field survey and existing records for the purpose of designing new constructions on the land and should not be used for any other purpose.
The title boundaries as shown on this plan were not marked at the time of the survey and have been determined by plan dimensions only and not by field survey. No measurements or offsets are to be derived between the features on this plan and the boundary layer. The relationship between the features in this model and the boundary layers cannot be used for any set out purposes or to confirm the position of the title boundaries on site. Services shown have been located where visible by field survey. Services denoted as being "Per DBYD only" are approximate and for illustrative purposes only. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.
This note forms an integral part of the Plan/Data. Any reproduction of this plan/model without this note attached will render the information shown invalid.

Building Area

Seating	44.37
Coffee Container	14.75
Storage & Facilities	53.88
	113.00 m²

Sorell Council
Development Application: 5.2025.53.1 - Response to Request For Information - Lot 501 Primrose Sands Road, Primrose Sands .pdf
Plans Reference: P4
Date Received: 05/05/2025

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www.pinnacledrafting.com.au
Licence: CC6073Y

Location Plan

Revision: DA - 02
Approved by: JD

Scale: 1:1000 @ A1
Pg. No: A.01

Proposal: Cafe
Client: Primrose Development Company Pty Ltd
Address: 432 Primrose Sands Rd, Primrose Sands

Date: 29/01/25
Drawn by: JRN
Job No: 68-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Designer

NOTE: Refer to cover page for further details on changes.

N

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA

Legend

- Electrical Connection
- Electrical Turret
- Sewer Connection
- Stormwater Connection
- Telstra Connection
- Telstra Pit
- Water Meter
- Water Stop Valve
- Fire Hydrant
- Security Spotlight

Revision 10/04/25

Surface Water Drainage

Ground to fall away from building in all directions in compliance with AS2870 & N.C.C 2022 Volume I.

Surface water, resulting from a storm having an annual exceedance probability of 1%, must not enter the building.

Limitations

F1P2 does not apply to-
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This note forms an integral part of the Plan/Data. Any reproduction of this plan/model without this note attached will render the information shown invalid.

Revision 10/04/25

FIXED SIGN SIMILAR TO BELOW AT THE END OF THE PARKING BAY.

501
115400m²
CT: 17783/501

TIMBER SLEEPERS AT THE END OF THE PARKING BAYS TO BE FIXED IN PLACE

WASTEWATER TRENCHES
2x 12m x 1.0m, Refer to report by Rock Solid Geotechnics Pty Ltd for system details

Revision 10/04/25

ABSORPTION TRENCH 1200W

ABSORPTION TRENCH 1200W

1.000

SEPTIC

OVERFLOW TO TRENCH

SW OVERFLOW TRENCH 8.000m

8.000

1.000

W

R/W TANK 10,000L

FFL: 6.300

Storage & Facilities 53.88 m²

Seating 36.00 m²

Seating 2.79 m²

Coffee Container 14.75 m²

Seating 2.79 m²

Seating 2.79 m²

2.88 m²

470.58 m²
PROPOSED GRAVEL AREA

GRAVEL PARKING AREA TO GRADED TO PREVENT PONDING AND DIVERTING STORMWATER RUNNOFF OVER THE SITE.

STORMWATER TRENCH
8m x 1.0m x 0.45m, Refer to report by Rock Solid Geotechnics Pty Ltd

Revision 10/04/25

REMOTE OFFTAKE LOCATION

NEW FENCING TO MATCH EXISTING ALONG BOUNDARY FRONTAGE

EXISTING GRAVEL ACCESS

NEW 5.5M WIDE GATE TO PROPERTY

EXISTING FENCING TO REMAIN

PRIMROSE SANDS ROAD

20.000

26.750

6.000

5.500

0.45 DIA

6.03
SPK EOP = RL 6.03

Building Area

Seating	44.37
Coffee Container	14.75
Storage & Facilities	53.88
	113.00 m²

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Site Plan

Revision: DA - 02
Approved by: JD

Scale: 1:200 @ A1
Pg. No: A.02

Proposal: Cafe
Client: Primrose Development Company Pty Ltd
Address: 432 Primrose Sands Rd, Primrose Sands

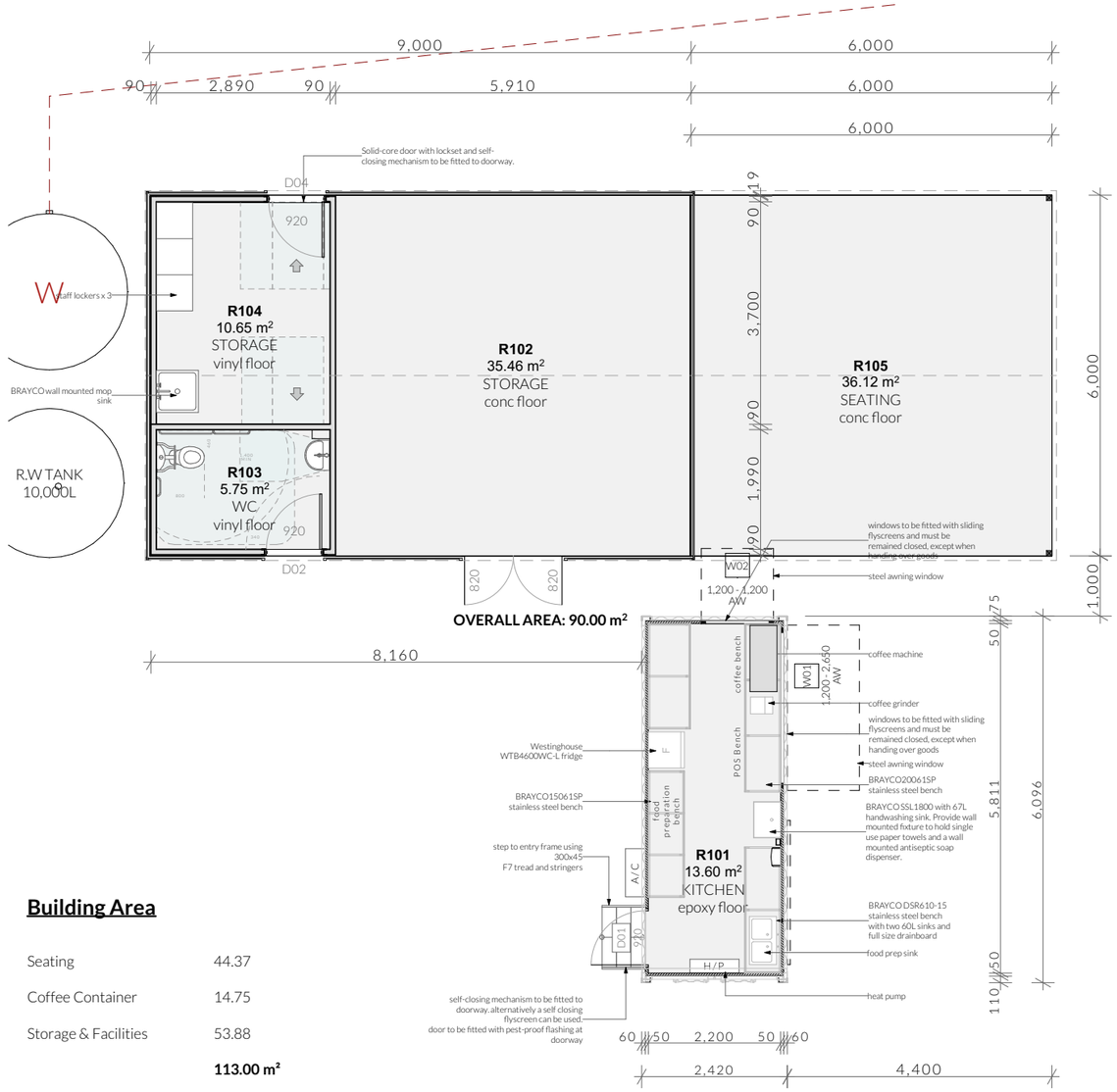
Date: 29/01/25
Drawn by: JRN
Job No: 68-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Designer
Ch -01	10/04/2025 12:31 PM	JN
Ch -02	29/04/2025 2:37 PM	JN

NOTE: Refer to cover page for further details on changes.

N

bdaa BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA



Building Area

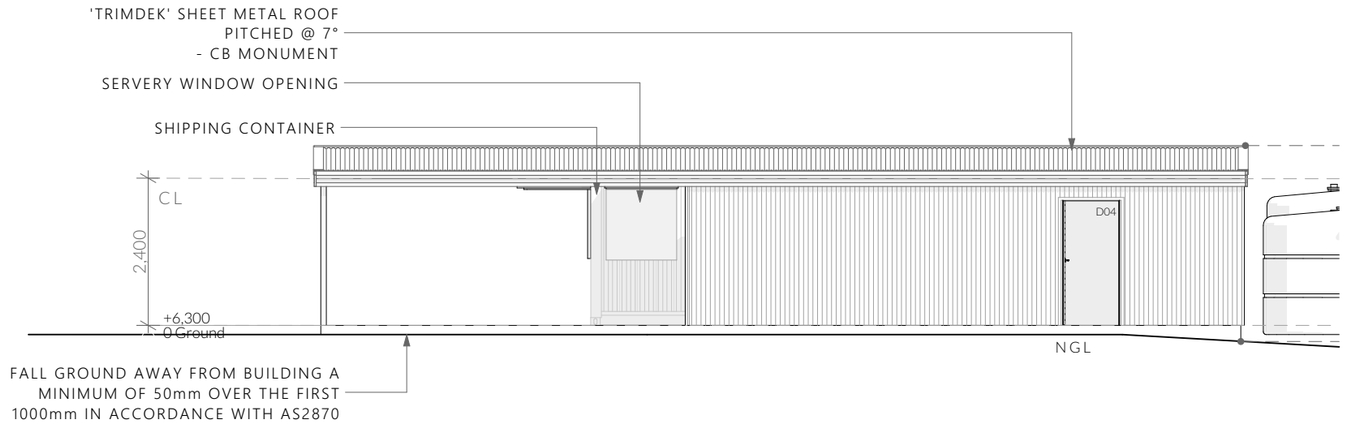
Seating	44.37
Coffee Container	14.75
Storage & Facilities	53.88
	113.00 m²

Internal Room Areas

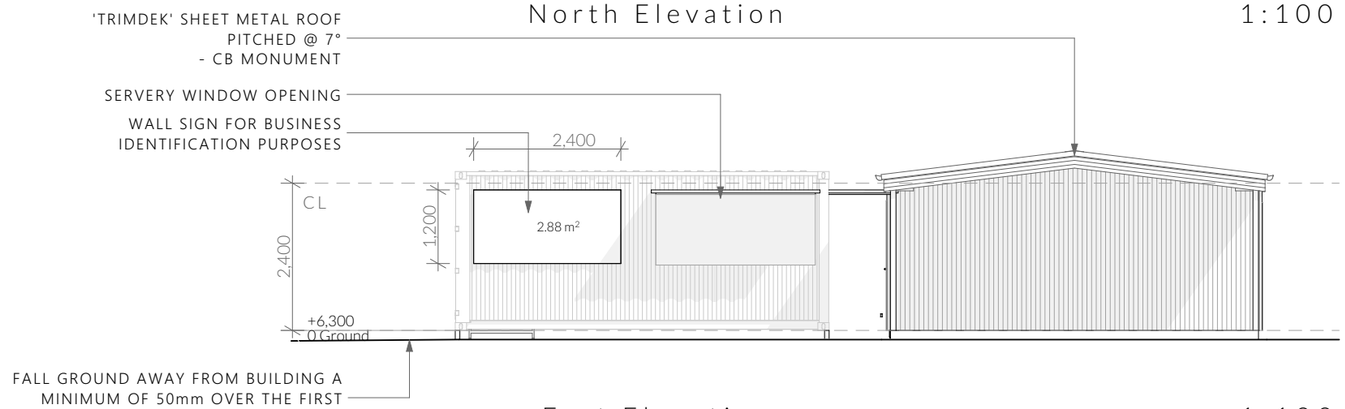
KITCHEN	13.60
WC	5.75
STORAGE	10.65
STORAGE	35.46
SEATING	36.12

Sorell Council

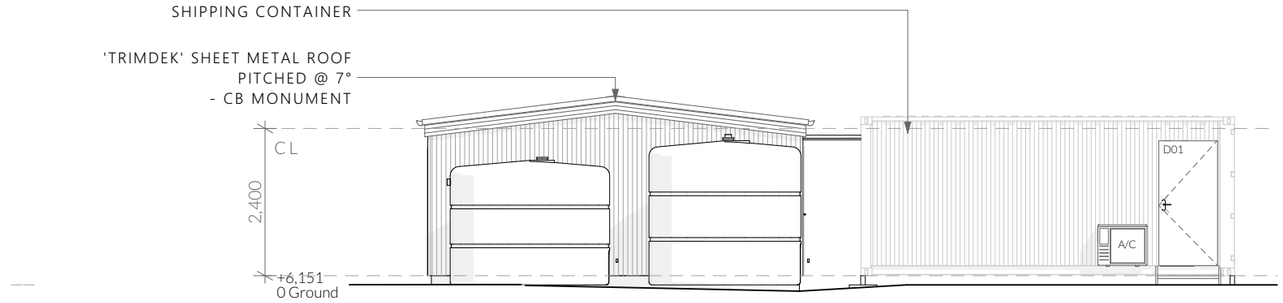
Development Application: 5.2025.53.1 - Response to Request For Information - Lot 501 Primrose Sands Road, Primrose Sands .pdf
Plans Reference: P4
Date Received: 05/05/2025



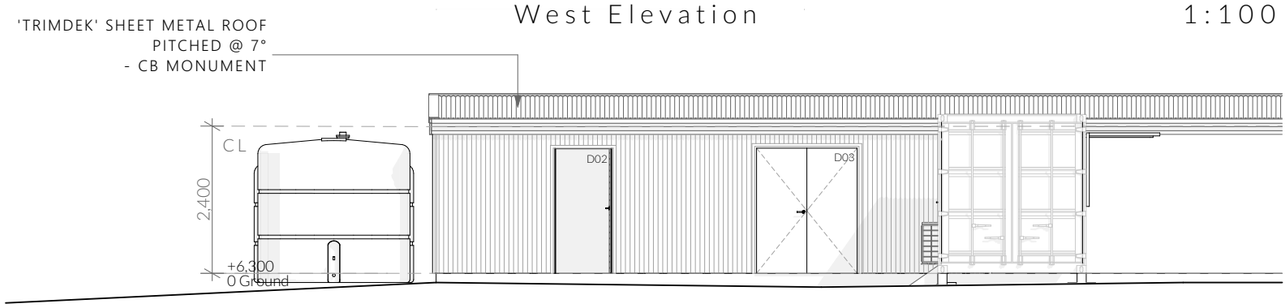
North Elevation 1:100



East Elevation 1:100



West Elevation 1:100



South Elevation 1:100

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Floor Plan & Elevations

Revision: DA - 02
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A.03

Proposal: Cafe
Client: Primrose Development Company Pty Ltd
Address: 432 Primrose Sands Rd, Primrose

Date: 29/01/25
Drawn by: JRN
Job No: 68-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Revision ID	Revision ID

NOTE: Refer to cover page for further details on changes.

N

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA