

# NOTICE OF PROPOSED DEVELOPMENT

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

**SITE:**

**37 ELISE DRIVE, DODGES FERRY**

**PROPOSED DEVELOPMENT:**

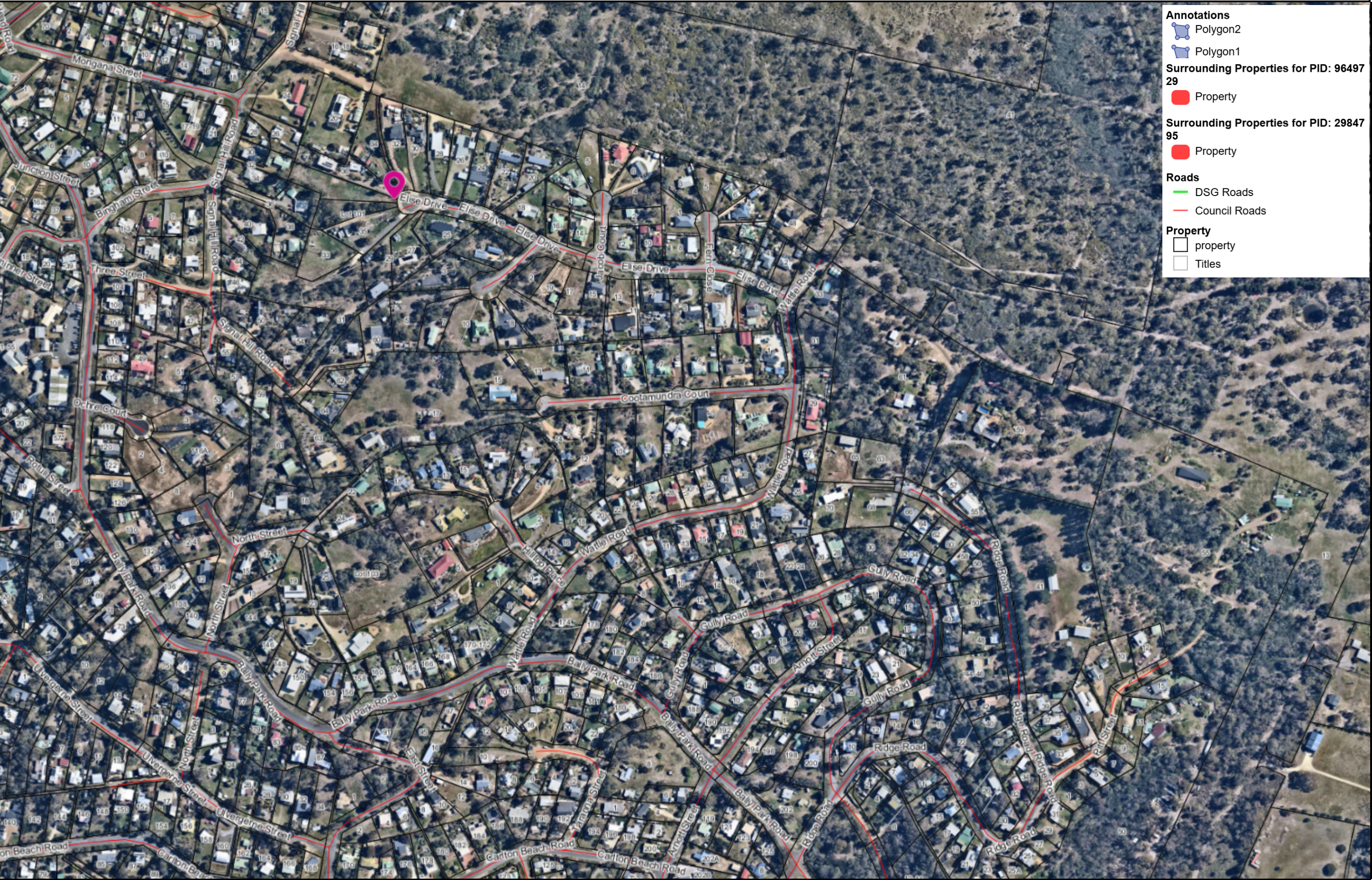
**DWELLING**

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](http://www.sorell.tas.gov.au) until **Thursday 8<sup>th</sup> January 2026**.

Any person may make representation in relation to the proposal by letter or electronic mail ([sorell.council@sorell.tas.gov.au](mailto:sorell.council@sorell.tas.gov.au)) addressed to the General Manager. Representations must be received no later than **Thursday 8<sup>th</sup> January 2026**.

**APPLICATION NO: 5.2025.336.1**  
**DATE: 12 DECEMBER 2025**





**Disclaimer**

Any information extracted from this document (from the face of the document or by scale) should be verified on site. Council takes no responsibility for the accuracy of any information contained or presented in the document. While every care has been taken to ensure the accuracy of this information, Council makes no representations or warranties about the accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and liability.

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

Full description of Proposal:	Use:
	Development:
	<i>Large or complex proposals should be described in a letter or planning report.</i>
Design and construction cost of proposal: \$ .....	

Is all, or some the work already constructed:	No: <input checked="" type="checkbox"/> Yes: <input type="checkbox"/>
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Location of proposed works:	Street address: .....
	Suburb: ..... Postcode: .....
	Certificate of Title(s) Volume: ..... Folio: .....

Current Use of Site	.....
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Current Owner/s:	Name(s).....
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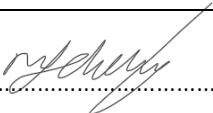
Is the Property on the Tasmanian Heritage Register?	No: <input type="checkbox"/> Yes: <input type="checkbox"/>	<i>If yes, please provide written advice from Heritage Tasmania</i>
Is the proposal to be carried out in more than one stage?	No: <input checked="" type="checkbox"/> Yes: <input type="checkbox"/>	<i>If yes, please clearly describe in plans</i>
Have any potentially contaminating uses been undertaken on the site?	No: <input checked="" type="checkbox"/> Yes: <input type="checkbox"/>	<i>If yes, please complete the Additional Information for Non-Residential Use</i>
Is any vegetation proposed to be removed?	No: <input checked="" type="checkbox"/> Yes: <input type="checkbox"/>	<i>If yes, please ensure plans clearly show area to be impacted</i>
Does the proposal involve land administered or owned by either the Crown or Council?	No: <input checked="" type="checkbox"/> Yes: <input type="checkbox"/>	<i>If yes, please complete the Council or Crown land section on page 3</i>
<b>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</b> <a href="https://www.sorell.tas.gov.au/services/engineering/">https://www.sorell.tas.gov.au/services/engineering/</a>		



**Sorell Council**

Development Application: Development Application - 37 Elise Drive, Dodges Ferry.pdf

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Declarations and acknowledgements	
<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>I/we declare that, in accordance with s52(1) of the <i>Land Use Planning and Approvals Act 1993</i>, that I have notified the owner(s) of the intention to make this application.</li> <li>I/we declare that the information in this application is true and correct.</li> </ul> <p><i>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></p>	
<ul style="list-style-type: none"> <li>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.</li> </ul>	
<ul style="list-style-type: none"> <li>Where the General Manager's consent is also required under s.14 of the <i>Urban Drainage Act 2013</i>, by making this application I/we also apply for that consent.</li> </ul>	
<b>Applicant Signature:</b>	Signature:  Date: .....

Crown or General Manager Land Owner Consent	
<p>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 <i>Land Use Planning and Approvals Act 1993</i>).</p> <p>Please note:</p> <ul style="list-style-type: none"> <li>If General Manager consent is required, please first complete the General Manager consent application form available on our website <a href="http://www.sorell.tas.gov.au">www.sorell.tas.gov.au</a></li> <li>If the application involves Crown land you will also need a letter of consent.</li> <li>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.</li> </ul>	
<p>I _____ being responsible for the administration of land at _____ declare that I have given permission for the making of this application for _____</p>	
<b>Signature of General Manager, Minister or Delegate:</b>	Signature: ..... Date: .....





## SEARCH OF TORRENS TITLE

VOLUME 158772	FOLIO 6
EDITION 5	DATE OF ISSUE 25-Sept-2025

SEARCH DATE : 03-Dec-2025

SEARCH TIME : 08.43 am

DESCRIPTION OF LAND

Parish of FORCETT Land District of PEMBROKE

Lot 6 on Sealed Plan [158772](#)

Derivation : Part of 547 Acres - Gtd. to Thomas Macdowell

Prior CT [5561/3](#)SCHEDULE 1

[N270881](#) TRANSFER to MITCHELL ALBERT GLEN FEHLBERG and JESSICA  
LEA DAWES Registered 25-Sept-2025 at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any


[SP158772](#) EASEMENTS in Schedule of Easements[SP158772](#) COVENANTS in Schedule of Easements[SP158772](#) FENCING PROVISION in Schedule of Easements

[SP 5561](#) COUNCIL NOTIFICATION under Section 468(12) of the  
Local Government Act 1962

[E427475](#) MORTGAGE to Bendigo and Adelaide Bank Limited  
Registered 25-Sept-2025 at 12.01 pm

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

**Sorell Council**

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<b>SCHEDULE OF EASEMENTS</b>	Registered Number <b>SP158772</b>
<b>NOTE:</b> THE SCHEDULE MUST BE SIGNED BY THE OWNERS & MORTGAGEES OF THE LAND AFFECTED. SIGNATURES MUST BE ATTESTED.	



Sorell Council

Development Application: Development  
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PAGE 1 OF 6 PAGE/S

**EASEMENTS AND PROFITS**

Each lot on the plan is together with:-

- (1) such rights of drainage over the drainage easements shown on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and
- (2) any easements or profits a prendre described hereunder.

Each lot on the plan is subject to:-

- (1) such rights of drainage over the drainage easements shown on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and
- (2) any easements or profits a prendre described hereunder.


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

**INTERPRETATION**


“Service Easement” means:

The full and free right of every person who is entitled to an estate or interest in possession of the land herein indicated as the dominant tenement or any part thereof with which the right shall be capable of enjoyment in common with the owner of the land herein indicated as the servient tenement to lay use and maintain forever water mains, pipes, drains, mains, sewers, wires, cables and other conducting media of such size and number as shall from time to time be required through in and under that part of the land marked Service Easement 1.00 wide on the Plan TOGETHER WITH the full and free right and liberty at all times to use such installations and conducting media to conduct water, drainage, sullage, sewerage and stormwater and other surplus water, electricity, natural gas and telecommunications to and from the dominant tenement AND TOGETHER WITH the right from time to time at all times hereafter to enter into and upon that part of the land marked Service Easement 1.00 wide on the Plan or any part thereof with or without surveyors, inspectors, workman or other persons to inspect the condition of such installations and conducting media to repair amend and cleanse the same and to open and break up the soil and bring place and remove upon that part of the land marked Service Easement 1.00 wide on the Plan or any part thereof any materials, machinery, tools or other equipment

Signed by VICTOR KUMPULAINEN )



(USE ANNEXURE PAGES FOR CONTINUATION)

SUBDIVIDER: Victor Kumpulainen FOLIO REF: 5561/3 SOLICITOR & REFERENCE: Max McMullen (K.422)	PLAN SEALED BY: Sorell Council DATE: 29.9.10 PP2058 REF NO.  Council Delegate
<b>NOTE:</b> The Council Delegate must sign the Certificate for the purposes of identification.	



<b>ANNEXURE TO SCHEDULE OF EASEMENTS</b> PAGE 2 OF 6 PAGES	Registered Number <b>SP158772</b>
SUBDIVIDER: Victor Kumpulainen FOLIO REFERENCE: 5561/3	

as may be necessary for the property constructions laying and maintenance and repair of such installations and conducting media or portions thereof PROVIDED HOWEVER that any damage occasioned thereby shall be made good.

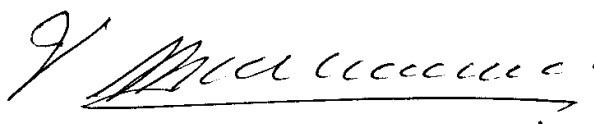
“Telecommunication Services Easement” means:



The full and free right for Telstra Corporation Limited to lay install use and maintain telecommunication cables of such size and number as shall from time to time be required to provide telecommunication services to the lots benefiting or being capable of benefiting from such services underneath on or above the strip of land over which the Easement is created together with such ancillary items and equipment and apparatus as may be necessary to provide telecommunication services to such Lots and from time to time and at all times hereafter to enter upon the strip of land with workers agents and contractors of Telstra Corporation Limited or any other suppliers of telecommunications or like services to inspect, cleanse, repair, maintain, replace or renew such cables and ancillary items and to open break up the soil and bring place and remove upon and from the strip of land any materials, machinery, tools and other equipment as may be necessary for the construction, installation, maintenance and replacement of the telecommunication cables and ancillary items or any part thereof provided that:

- (i) the rights and privileges hereby granted shall be exercised so as to cause as little damage as possible to the strip of land and as little interference as possible to the exercise of any other rights to which the strip of land is subject; and
- (ii) any damage occasioned to the strip of land in exercise of the rights and privileges hereby granted shall be made good.

Signed by VICTOR KUMPULAINEN )



**NOTE:** Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.



<b>ANNEXURE TO SCHEDULE OF EASEMENTS</b> PAGE 3 OF 6 PAGES	Registered Number <b>SP15 8772</b>
SUBDIVIDER: Victor Kumpulainen FOLIO REFERENCE: 5561/3	

## EASEMENTS:

Lot 1 is Subject to a Right of Carriageway (appurtenant to Lot 2) over the Right of Way (Private) 6.00 wide shown passing through Lot 1.

Lot 2 is Together with a right of Carriageway over the Right of Way (Private) 6.00 wide shown passing through Lot 1.

Lot 9 is Subject to a Right of Carriageway (appurtenant to Lots 10, 11, 12, 13, 14 and 15) over the Right of Way (Private) 8.00 wide on the Plan.

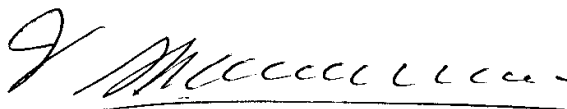
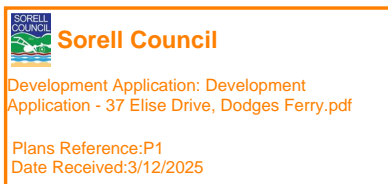
Lots 10, 11, 12, 13, 14 and 15 are each Together with a Right of Carriageway over the Right of Way (Private) 8.00 wide on the Plan.

Lot 10 is Subject to a Right of Carriageway (appurtenant to Lots 11, 12, 13, 14 and 15) over the Right of Way (Private) 6.00 wide shown passing through Lot 10.

Lot 11 is Subject to a Right of Carriageway (appurtenant to Lots 12, 13, 14 and 15) over the Right of Way (Private) 6.00 wide shown passing through Lot 11.

Lot 12 is Subject to a Right of Carriageway (appurtenant to Lots 13, 14 and 15) over the Right of Way (Private) 6.00 wide shown passing through Lot 12.

Signed by VICTOR KUMPULAINEN )



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<b>ANNEXURE TO SCHEDULE OF EASEMENTS</b> PAGE 4 OF 6 PAGES	Registered Number <b>SP 15 8 7 7 2</b>
SUBDIVIDER: Victor Kumpulainen FOLIO REFERENCE: 5561/3	

Lot 13 is Subject to a Right of Carriageway (appurtenant to Lots 14 and 15) over the Right of Way (Private) 6.00 wide shown passing through Lot 13.

Lot 14 is Subject to a Right of Carriageway (appurtenant to Lot 15) over the Right of Way (Private) 6.00 wide shown passing through Lot 14.

Lot 11 is Together with a Right of Carriageway over the Right of Way (Private) 6.00 wide shown passing through Lot 10.

Lot 12 is Together with a Right of Carriageway over the Right of Way (Private) 6.00 wide shown passing through Lots 10 and 11.

Lot 13 is Together with a Right of Carriageway over the Right of Way (Private) 6.00 wide shown passing through Lots 10, 11 and 12.

Lot 14 is Together with a Right of Carriageway over the Right of Way (Private) 6.00 wide shown passing through Lots 10, 11, 12 and 13.

Lot 15 is Together with a Right of Carriageway over the Right of Way (Private) 6.00 wide shown passing through Lots 10, 11, 12, 13 and 14.

 <b>Sorell Council</b>
Development Application: Development Application - 37 Elise Drive, Dodges Ferry.pdf
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Signed by VICTOR KUMPULAINEN )



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<b>ANNEXURE TO SCHEDULE OF EASEMENTS</b> PAGE 5 OF 6 PAGES	Registered Number <b>SP158772</b>
SUBDIVIDER: Victor Kumpulainen FOLIO REFERENCE: 5561/3	

Lot 1 is Subject to a Service Easement as herein defined (appurtenant to Lots 2, 3 and 4) over the Service Easement 1.00 wide shown passing through Lot 1.

Lot 2 is Subject to a Service Easement as herein defined (appurtenant to Lots 3 and 4) over the Service Easement 1.00 wide shown passing through Lot 2.

Lot 3 is Subject to a Service Easement as herein defined (appurtenant to Lot 4) over the Service Easement 1.00 wide shown passing through Lot 3.

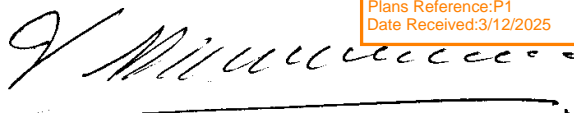
Lot 2 is Together with a Service Easement as herein defined over the Service Easement 1.00 wide passing through Lot 1.

Lot 3 is Together with a Service Easement as herein defined over the Service Easement 1.00 wide passing through Lots 1 and 2.

Lot 4 is Together with a Service Easement as herein defined over the Service Easement 1.00 wide passing through Lots 1, 2 and 3.

Lots 9, 10, 11, 12, 13, 14 and 15 are each subject to a Telecommunication Services Easement as herein defined in favour of Telstra Corporation Limited over the Telecommunication Services Easement 1.00 wide shown passing through Lots 9, 10, 11, 12, 13, 14 and 15.

Signed by VICTOR KUMPULAINEN )



**NOTE:** Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.



<b>ANNEXURE TO SCHEDULE OF EASEMENTS</b> PAGE 6 OF 6 PAGES	Registered Number <b>SP15 8772</b>
SUBDIVIDER: Victor Kumpulainen FOLIO REFERENCE: 5561/3	

**COVENANTS:**

The owners of each Lot on the Plan covenant with the Vendor to the intent that the burden of these covenants may run with and bind the Covenantor's Lot and every part thereof and that the benefit thereof may be annexed to and devolve with each and every part of every other Lot on the Plan to observe the following stipulations:

- (i) Not to erect on the Lot any building or any structure comprising external building materials of unpainted or reflective metal surfaces.
- (ii) Not without the written consent of the Vendor to erect a building (excluding a glasshouse) detached from the dwelling house on the Lot in any material other than that of which the exterior walls of the dwelling house are mainly constructed and with other than a roof material the same as the roof of the dwelling house.
- (iii) Not to set up or carry on in or upon the Lot any noxious or offensive trade manufacture or business which may be a public nuisance or provoke annoyance
- (iv) Not to erect or permit to be erected on the Lot any advertising hoarding bill or poster or similar structure of an unsightly nature

**FENCING CONDITION: PROVISION**

In respect of any Lot on the Plan the Vendor Victor Kumpulainen shall not be required to fence.

Signed by VICTOR KUMPULAINEN )

in the presence of: )

Witness Signature:

Witness Full Name:

Address:

Occupation:



**Sorell Council**

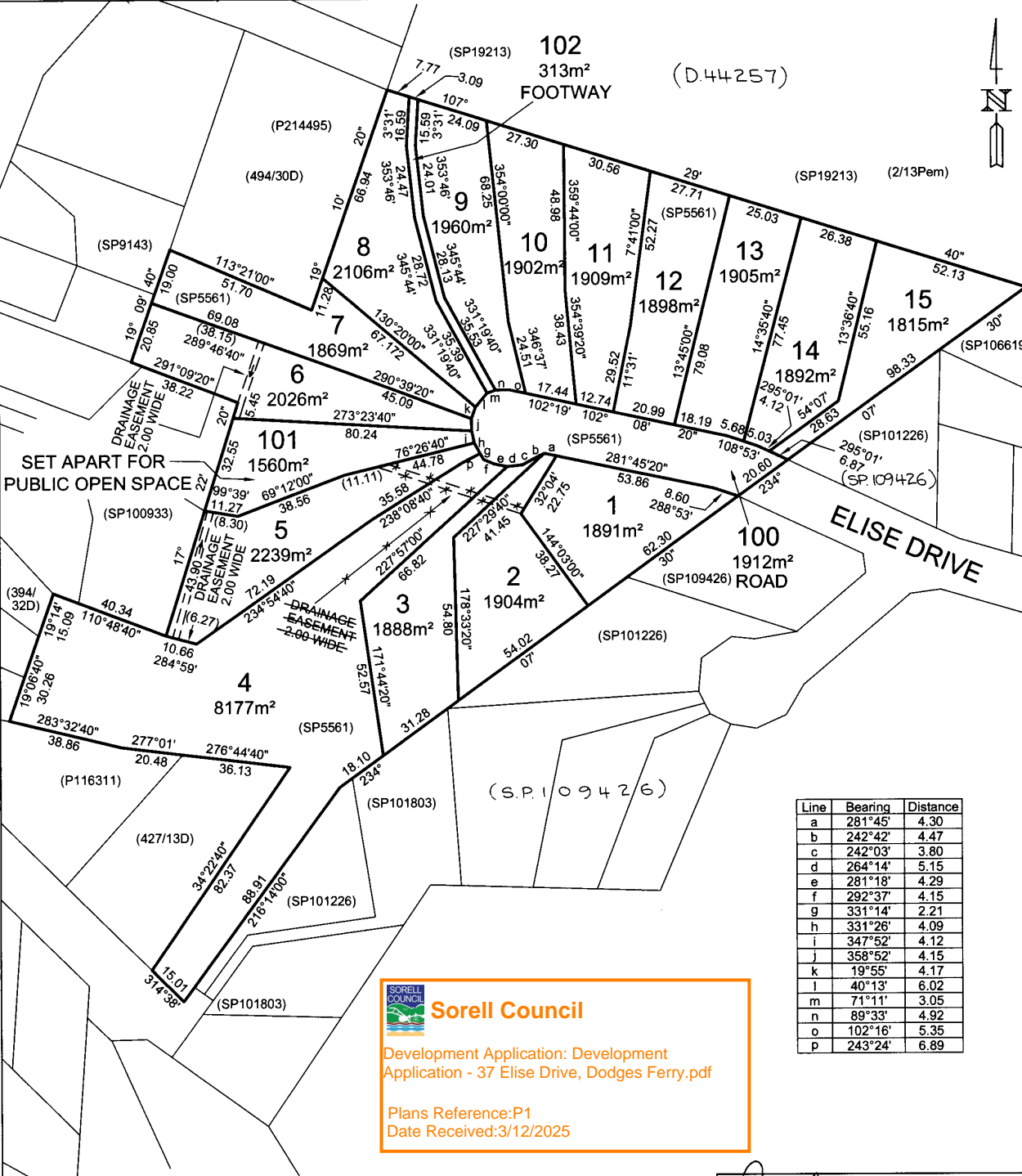
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<p>OWNER VICTOR KUMPULAINEN</p> <p>FOLIO REFERENCE 5561/3</p> <p>GRANTEE PART OF 547 ACRES GTD. TO THOMAS MACDOWELL.</p>	<p><b>PLAN OF SURVEY</b></p> <p>BY SURVEYOR DAVID B MILLER</p> <p>LOCATION</p> <p><b>LAND DISTRICT PEMBROKE PARISH FORCETT</b></p> <p>SCALE 1: 1250 LENGTHS IN METRES</p>	<p>REGISTERED NUMBER</p> <p><b>SP158772</b></p> <p>APPROVED EFFECTIVE FROM - 6 OCT 2011</p> <p><i>Alice Kawa</i> Recorder of Titles</p>	
<p>MAPSHEET MUNICIPAL CODE No. 124 (5425-33)</p>	<p>LAST UPI No. JME60</p>	<p>LAST PLAN No. SP5561</p>	<p>ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN</p>





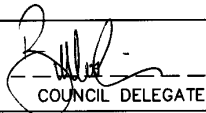
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b	242°42'	4.47
c	242°03'	3.80
d	264°14'	5.15
e	281°18'	4.29
f	292°37'	4.15
g	331°14'	2.21
h	331°26'	4.09
i	347°52'	4.12
j	358°52'	4.15
k	19°55'	4.17
l	40°13'	6.02
m	71°11'	3.05
n	89°33'	4.92
o	102°16'	5.35
p	243°24'	6.89



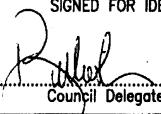
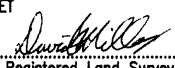

**Sorell Council**

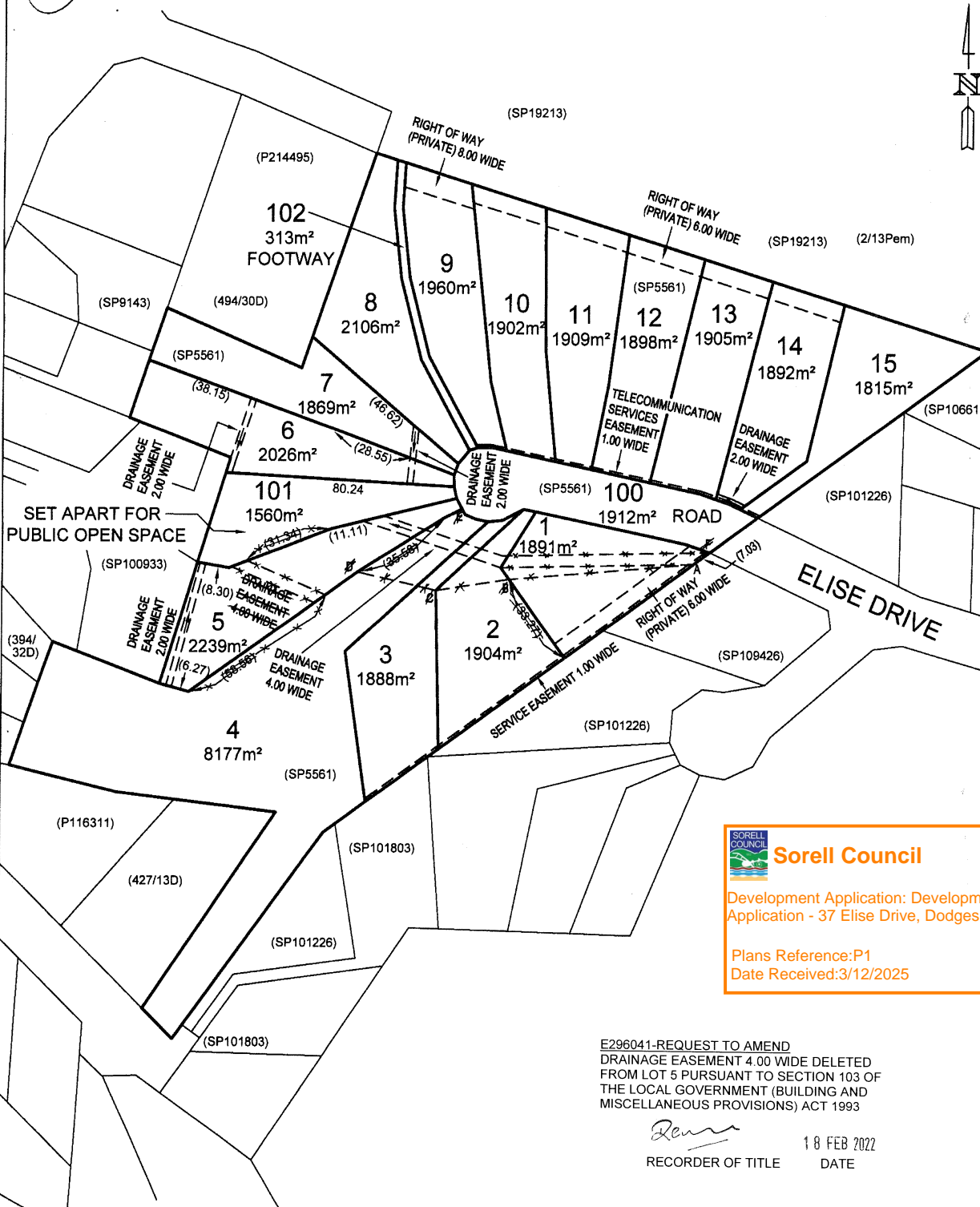
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 29.9.12  
COUNCIL DELEGATE DATE



<p><b>PLAN OF SURVEY</b> <b>ANNEXURE SHEET</b> SHEET 1 OF 1 SHEETS</p>	<p>OWNER VICTOR KUMPULAINEN FOLIO REFERENCE 5561/3 SCALE 1: 1250                      LENGTHS IN METRES</p>	<p>Registered Number <b>SP158772</b></p>
<p>SIGNED FOR IDENTIFICATION PURPOSES</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;">  Council Delegate             </div> <div style="text-align: center;">                 24.9.10 Date             </div> </div>	<p>THIS ANNEXURE SHEET FORMS PART OF THE ATTACHED INDEX PLAN THE SURVEYORS CERTIFICATE EXTENDS TO THE DETAILS ON THIS SHEET</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;">  Registered Land Surveyor             </div> <div style="text-align: center;">                 17-03-2009 Date             </div> </div>	<p>APPROVED - 6 OCT 2011 EFFECTIVE FROM</p> <div style="text-align: center;">  Recorder of Titles             </div>


  


 **Sorell Council**

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E296041-REQUEST TO AMEND  
DRAINAGE EASEMENT 4.00 WIDE DELETED  
FROM LOT 5 PURSUANT TO SECTION 103 OF  
THE LOCAL GOVERNMENT (BUILDING AND  
MISCELLANEOUS PROVISIONS) ACT 1993

  
RECORDER OF TITLE

18 FEB 2022  
DATE

GEOTECH 25-170

ROCK SOLID GEOTECHNICS PTY LTD

Peter Hofto

163 Orielton Road

Orielton

TAS 7172

0417 960 769

[peter@rocksolidgeotechnics.com.au](mailto:peter@rocksolidgeotechnics.com.au)

27/11/2025

Geotechnical Assessment / Classification for Proposed Residential Development

37 Elise Drive, Dodges Ferry.

CLIENT: Mitchell Fehlberg

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CONDITIONS OF INVESTIGATION	4

FIGURE 1 Site Plan

APPENDIX 1	Certificate of Others (Building) – Form 55
APPENDIX 2	CSIRO 'Guide to home-owners on foundation maintenance and footing performance'
APPENDIX 3	Onsite Wastewater Assessment & System Design
APPENDIX 4	Wastewater Loading Certificate
APPENDIX 5	Forms 35s & 55s



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## SUMMARY

A residential development is proposed Mitchell Fehlberg at 37 Elise Drive, Dodges Ferry ([Figure 1](#)). The site is underlain by sand over sandy clay and Triassic sediments.

The site is classified as [Class 'M'](#) in accordance with AS2870. The western end of the residence will be sited onto sandstone bedrock, whilst the eastern end of the residence is underlain by deep (2.10m+) sand & sandy clay. Engineering advice is recommended as there is potential for differential compaction over the site.

Suitable upslope site drainage should be installed prior to the commencement of construction.

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	<a href="#">N2</a>	

## INVESTIGATION

The Tasmanian Geological Survey 1:50000 Geological Atlas 'Sorell' indicates that the site is underlain by Triassic sediments.

A site investigation was completed on Tuesday 4 April, 2023 (for a different client) and again in November 2025. This included the augering of multiple test holes to assess the site for foundation conditions, and onsite wastewater suitability (4WD mounted SAMPLA25 mechanical auger with 100mm diameter solid flight augers). The locations of the holes are marked on [Figure 1](#).

The 2026m<sup>2</sup> block lies at the western end of Elise Drive. There is no evidence of any geotechnical hazards on the site. The site designated for the proposed residence is covered in grass, and is devoid of trees. The site slopes to the southwest at between 3 and 5 degrees. A drainage easement runs north to south through the centre of the block. The profile encountered in [Test Holes #1 & #2](#) consisted of:

0.00 – 0.20m	SAND: fine grained, dark brown / brown, rootlets – TOPSOIL
0.20 – 0.70m	SAND: fine grained, greyish brown, dry
0.70 – 1.25m	sandy CLAY: medium plasticity, greyish brown, 35% fine to medium grained sand, trace silt, moist, Bearing Capacity 180kPa
1.25 – 2.10m	sandy & silty CLAY: medium plasticity, yellowish brown / light brown, 20% fine to medium grained sand, 20% silt, moist, Bearing Capacity 210kPa
2.10m+	Hole terminated at required depth – 2.10m.

Groundwater was not encountered in either test hole.

Plate 1 – Test Hole #1 - Looking to the east at the proposed development site.



## CONDITIONS OF INVESTIGATION

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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.

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PETER HOFTO

ROCK SOLID GEOTECHNICS PTY LTD

NOTES & LEGEND

SOIL AND WATER

MANAGEMENT STRATEGIES

DOWNPipes TO BE CONNECTED INTO RAINWATER STORAGE TANK AS SOON AS ROOF IS INSTALLED

INSTALL AG DRAIN TO CUT AREA PRIOR TO FOOTING EXCAVATION.

DENOTES 100mm SEWER

DENOTES 90mm STORMWATER

EXCAVATED MATERIAL TO BE PLACES UPSIDE OF AG DRAIN. TO BE REMOVED WHEN BUILDING WORKS ARE COMPLETE AND USED AS FILL ON SITE FOR ANY LOW POINTS. INSTALL A SEDIMENT FENCE ON DOWNSLOPE OF MATERIAL.

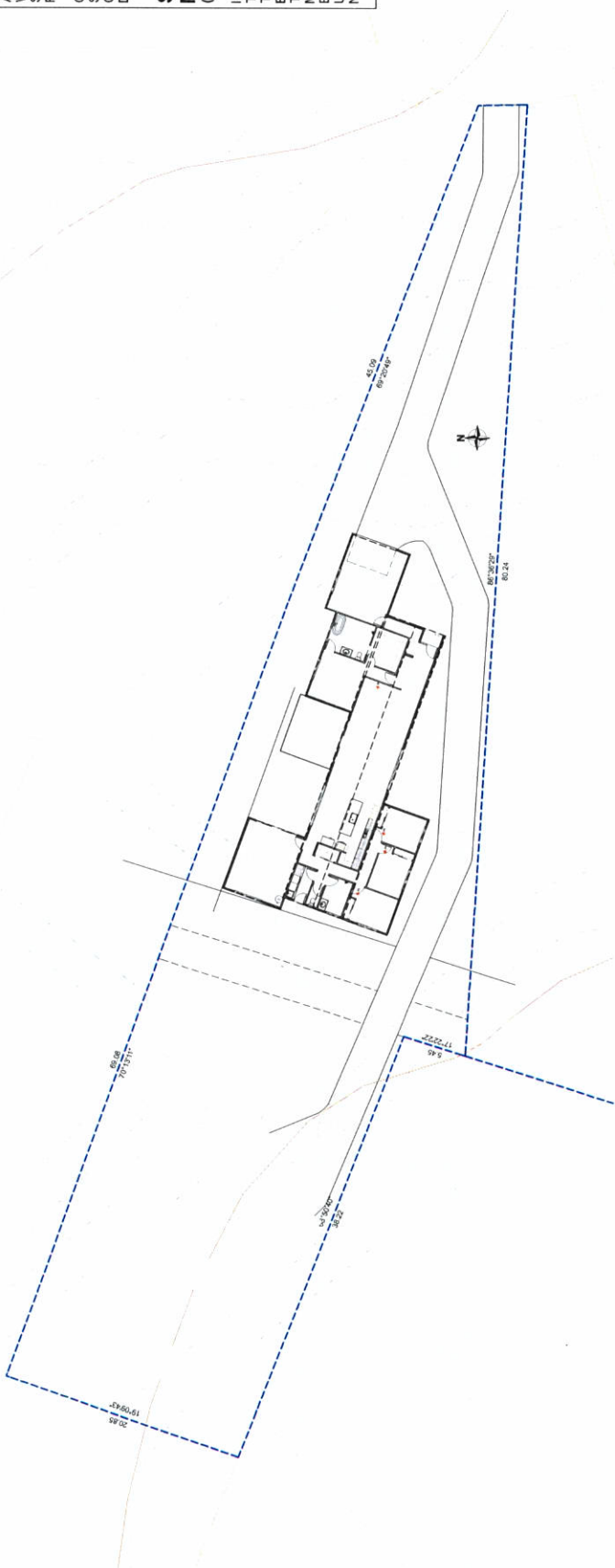
CONSTRUCTION VEHICLES TO BE PARKED ON THE STREET OR THE DRIVEWAY ONCE GRAVEL IS COMPACTED. TO PREVENT TRANSFERRING DEBRIS ONT CHAFFEYS DRIVE.

SOIL AND WATER

MANAGEMENT STRATEGIES

(SECTION 121 OF THE BUILDING ACT)

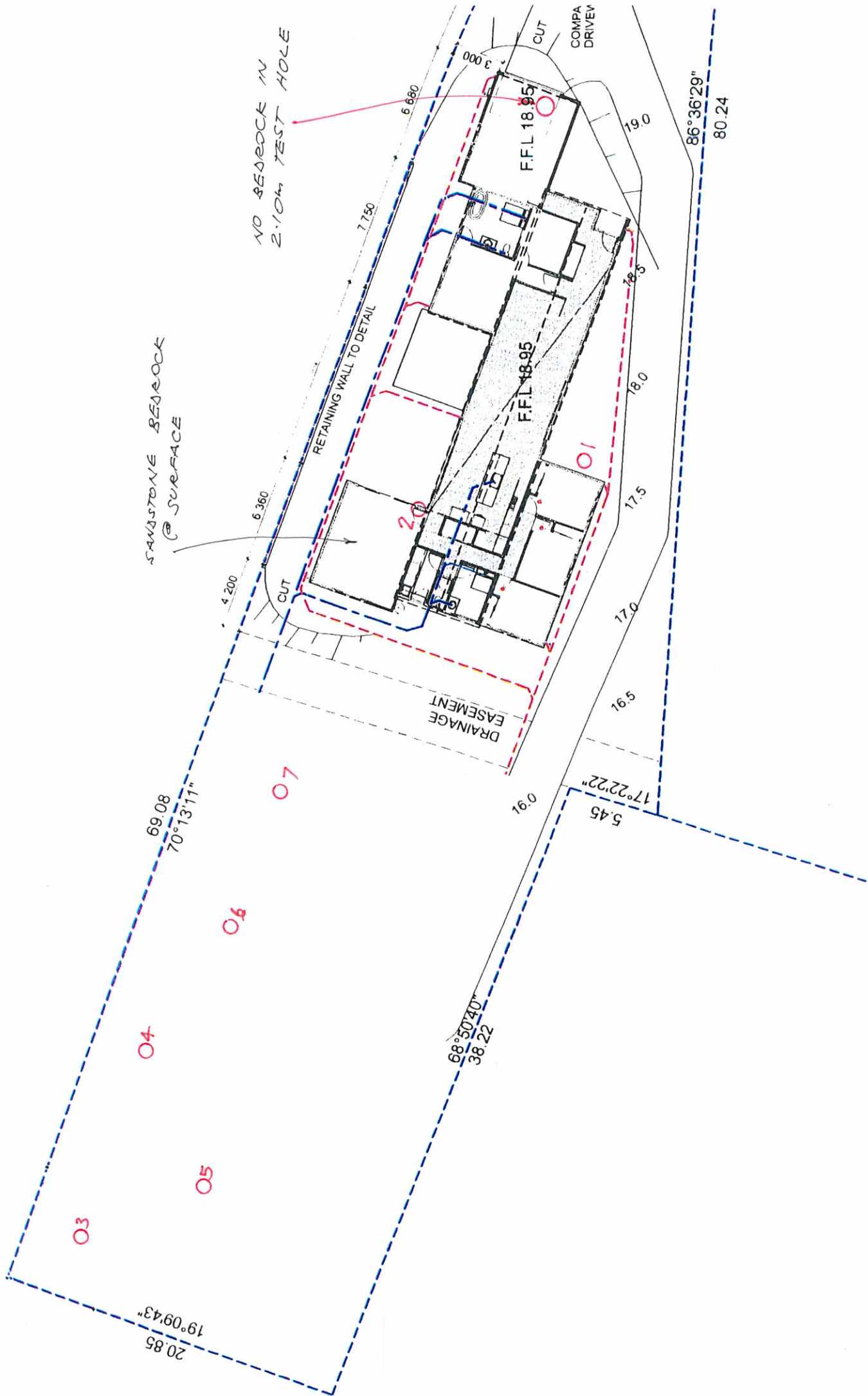
IF EXCAVATION IS TO A LEVEL BELOW THAT OF THE ADJOINING OWNERS FOOTING, ALONG THE TITLE BOUNDARY OR WITHIN 3 METRES OF A BUILDING BELONGING TO AN ADJOINING OWNER, THE BUILDER MUST (AS A MINIMUM) PROVIDE AND MAINTAIN A GUARD TO SUPERVISE THE EXCAVATION. ADJOINING OWNER TO BE NOTIFIED USING FORM 6(BUILDING AND PROTECTION WORK NOTICE) BY THE BUILDING SURVEYOR



SITE PLAN  
SCALE 1:400

REV.	AMENDMENT	DATE	PROPOSED CLASS 1a DWELLING 37 ELISE DRIVE DODGES FERRY	BUILDING DESIGNER CHRISTOPHER G KEAN CC17176 PH:0417 534 776	CLIENT MR M. FEHLBERG	ADDRESS 37 ELISE DRIVE DODGES FERRY	DRAWING TITLE SITE PLAN	Scale: 1:250 Project # 0110/2025	Date: 02/10/2025 SHEET #A02
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# CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Mitchell Fehlberg

Owner /Agent

Address

Suburb/postcode

## Qualified person details:

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

Address: 163 Orielton Road

Phone No: 0417960769

Orielton

7172

Fax No:

Licence No:

Email address:

[peter@rocksolidgeotechnics.com.au](mailto: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: 37 Elise Drive, Dodges Ferry

Lot No:

Certificate of title No:

The assessable item related to this certificate:

Geotechnical Assessment – Foundations

(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  
25-170

*Date:*

27/11/2025



# Foundation Maintenance and Footing Performance: A Homeowner's Guide



**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
I	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 perpend).

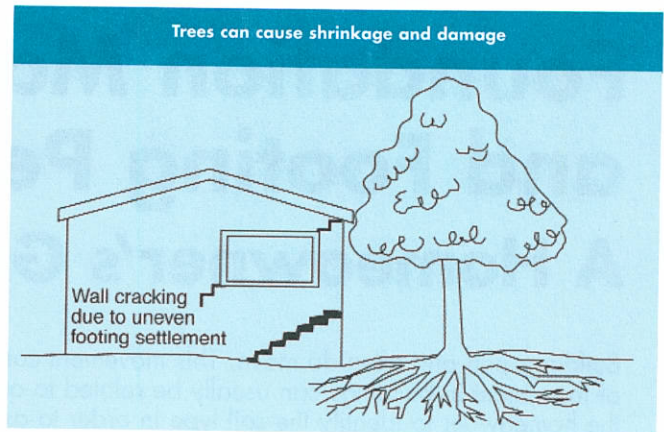
Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

### 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.



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.

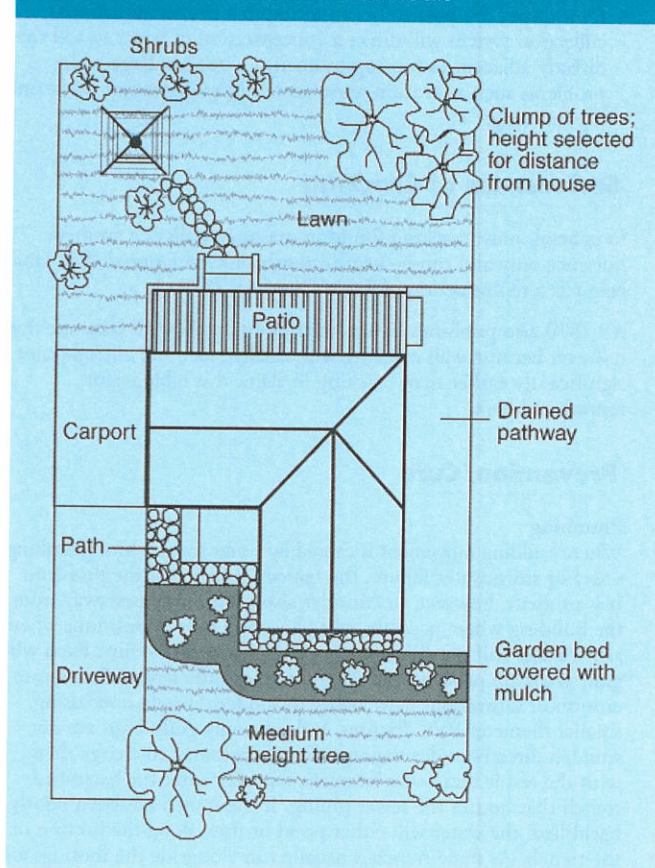
For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving

### 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



### Gardens for a reactive site



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.**

The information in this and other issues in the series was derived from various sources and was believed to be correct when published.

The information is advisory. It is provided in good faith and not claimed to be an exhaustive treatment of the relevant subject.

Further professional advice needs to be obtained before taking any action based on the information provided.

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## ONSITE WASTEWATER ASSESSMENT / SYSTEM DESIGN – 37 Elise Drive, Dodges Ferry

Below find the assessment to determine of the type and size of wastewater treatment system, and the allocation of a Land Application Area (LAA) at 37 Elise Drive, Dodges Ferry, Dodges Ferry. This assessment should be read in conjunction with Site & Soil Evaluation Report (GEOTECH 25-170) - enclosed.

The 2026m<sup>2</sup> block lies at the western end of Elise Drive. The site designated for the proposed LAA lies on the western side of a drainage easement that runs north to south through the centre of the block. The area is covered in grass, and is devoid of trees. The site is slopes to the south / southwest at 1 degree.

The profiles encountered in Test Holes #3 & #4 consisted of:

0.00 – 0.20m	SAND: fine grained, dark brown / brown, rootlets – TOPSOIL
0.20 – 0.80m	SAND: fine grained, greyish brown, dry
0.80 – 1.30m	sandy CLAY: medium plasticity, greyish brown, 35% fine to medium grained sand, trace silt, moist
1.30 – 1.60m	sandy & silty CLAY: medium plasticity, yellowish brown / light brown, 20% fine to medium grained sand, 20% silt, moist
1.60m+	Mechanical auger refusal on sandstone bedrock – 1.60m.

Test Hole #5 encountered dry sand to full 2.10m depth.

Test Holes #6 & #7 encountered sand over sandstone bedrock at 1.2m depth.

Groundwater was not encountered in any of the test holes.

The site is classified as a Class 1 (SAND) over Class 5 (light CLAY) site with an Indicative Permeability of 1.0 m/day. A conservative Design Loading Rate (DLR) of 10mm per day has been adopted..

It is proposed to install a septic tank discharging to an in-ground Advanced Enviro-Septic (AES) bed configured as a slight (300mm high) mound.

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



Plate 2 – Test Hole #3 - Looking to the west at the proposed LAA.



## COMPLIANCE WITH THE 2016 DIRECTOR'S GUIDELINES FOR ONSITE WASTEWATER

Compliance Table Directors Guidelines for OSWM		
Acceptable Solutions	Performance Criteria	Compliance achieved by
5.1 To ensure sufficient land is available for sustainable onsite wastewater management for buildings.		
<b>A1</b> A new dwelling must be provided with a LAA that complies with Table 3.	<b>P1</b> A new dwelling must be provided with a LAA that meets all of the following: a) The LAA is sized in accordance with the requirements of AS/NZS 1547; 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 <b>A1</b>  50m <sup>2</sup> of LAA required /bedroom, or 200m <sup>2</sup> for this development
7. Standards for Wastewater Land Application Areas		
<b>A1</b> 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	<b>P1</b> The LAA is located so that the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.	Complies with <b>A1</b>  LAA > 6m from residence.  Minimum 3m setback of the AES bed to any shed.



<p>building;</p> <p>(ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building;</p> <p>(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.</p>		
<p><b>A2</b></p> <p>Horizontal separation distance from downslope surface water to a LAA must comply with (a) or (b)</p> <p>(a) be no less than 100m; or</p> <p>(b) be no less than the following:</p> <p>(i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or</p> <p>(ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to downslope surface water.</p>	<p><b>P2</b></p> <p>Horizontal separation distance from downslope surface water to a LAA must comply with all of the following:</p> <p>a) Setbacks must be consistent with AS/NZS 1547 Appendix R;</p> <p>b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.</p>	<p>Complies with <b>A2</b></p> <p>LAA &gt; 100m from downslope surface water.</p>
<p><b>A3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with either of the following:</p> <p>(a) be no less than 40m from a property boundary; or</p> <p>(b) be no less than:</p> <p>(i) 1.5m from an upslope or level property boundary; &amp;</p> <p>(ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or</p> <p>(iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.</p>	<p><b>P3</b></p> <p>Horizontal separation distance from a property boundary to a LAA must comply with all of the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.</p>	<p>Complies with <b>A3</b></p> <p>Setback distances.</p> <p>LAA minimum 1.5m from upslope property boundary.</p> <p>LAA minimum 2m from western property boundary.</p> <p>LAA minimum 8.5m from southern property boundary.</p>
<p><b>A4</b></p> <p>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.</p>	<p><b>P4</b></p> <p>Horizontal separation distance from a downslope bore, well or similar water supply to a LAA must comply with all of the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable.</p>	<p>Complies with <b>A4</b></p> <p>No known potable bores in the immediate vicinity.</p>
<p><b>A5</b></p> <p>Vertical separation distance between groundwater &amp; a LAA must be no less than:</p> <p>(a) 1.5m if primary treated effluent; or</p> <p>(b) 0.6m if secondary treated effluent</p>	<p><b>P5</b></p> <p>Vertical separation distance between groundwater and a LAA must comply with the following:</p> <p>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and</p> <p>(b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable.</p>	<p>Complies with <b>A5</b></p> <p>Groundwater not encountered.</p>
<p><b>A6</b></p> <p>Vertical separation distance between a limiting layer &amp; a LAA must be no less than:</p> <p>(a) 1.5m if primary treated effluent; or</p> <p>(b) 0.5m if secondary treated effluent.</p>	<p><b>P6</b></p> <p>Vertical setback must be consistent with AS/NZS1547 Appendix R.</p>	<p>Complies with <b>A6</b></p> <p>Limiting layer not encountered within 1.5m of the surface.</p>

## ONSITE WASTEWATER SYSTEM DESIGN

A new, 3250 litre, dual purpose septic tank will be installed to collect all the residential wastewater from the residence. The effluent leaving the septic tank will be pumped to an in-ground Advanced Enviro-Septic (AES) bed (configured as a mound), utilising a pumpwell and submersible pump. The septic tank **should** be fitted with an outlet filter to protect the submersible pump.

The AES bed will be configured as a mound (300mm high).

The pumpwell (minimum 1000 litre capacity) must be fitted with an alarm in case of malfunction. A strobe light alarm is recommended. A 32mm diameter line will distribute the effluent between the pump and the AES Bed. A Netco pumpwell is recommended as these tanks are supplied with lids and all the required internal fittings.

A 200mm high and 300mm wide earth bund should be installed upslope from the AES bed to protect the site from overground water flows – see site plan.

The following calculations determine the size of the AES Bed designed to service the 4-bedroom residence.

4-bedroom residence	6 persons
Tank water	120 litres / person / day
Wastewater Flow Rate	$6 \times 120 = 720$ litres / day
Design Loading Rate (DLR)	10mm/day
DLR	10 litres / m <sup>2</sup> / day
Basal Area of Land Application Area	$720 / 10 = 72\text{m}^2$

The Advanced Enviro Septic (AES) system utilizes a modular distribution layout consisting of pipework laid in “system sand” of minimum width 1350mm. This module consists of 2 runs of 4 x 300mm diameter AES pipes, 150mm apart, with 300mm side-wall clearance on each side - total width 1350mm.

Distribution unit length	=	AES pipe length + (0.3m x 2)
		$12\text{m} + 0.6\text{m} = 12.6\text{m}$
Width of 2-pipe wide AES unit	=	1.35m
A System Extension is required for this site.		$12.6\text{m long} \times 4.36\text{m wide} = 55\text{m}^2$
Area of AES	=	$12.6\text{m} \times 5.71\text{m} = 72\text{m}^2$

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

### Site Preparation

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

### AES System Sand Specifications

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

### Venting – AES system and septic tank

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

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



## AES The World Leader in Passive Solutions ©

Site Address	37 Elise Drive, Dodges Ferry	State	TAS	Post Code	7173
Client Name	Mitchell Fehlberg	Date of Site Visit	14/11/25		
Designers Name	Peter Hofto, Rock Solid Geotechnics Pty Ltd	Designers Ph Number	0417 960 769	Designer Lic (e.g QBCC)	CC61591
Lic Plumber	TBA	Plumber Ph Number		Plumb / Drainer Lic Number	TBA
Council Area	Sorell	Designers AES Cert Number	1463	Date	20/11/25

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

System Designers site and soil calculation data entry		IMPORTANT NOTES
Enter AES L/m loading rate, "30" for ADV Secondary or "38" Secondary	38	>> This design is for a <b>SECONDARY</b> system.
Is this a new installation Y or N	Y	>> Minimum single vent size is 80mm or 2 x 50mm house vents
Number of Bedrooms	4	>> This is not used in ANY Calculation. If not known use N/A or 0.
Number of persons	6	>> A septic tank outlet filter is NOT RECOMMENDED
Daily Design Flow Allowance Litre/Person/Day	120	
Number of rows required to suit site constraints	2	>> The maximum length of a single AES pipe run is 30m or 10 PIPES
Infiltration Soil Category from site/soil evaluation. CATEGORY	2	
Design Loading Rate based on site & soil evaluation DLR (mm/day)	10	
Bore log depth below system Basal area	1.5m	>> Min depth 1.5m. Check water table/restrictive layer
Is this design a GRAVITY system with no outlet filter? Y or N	n	>> PUMPED. HIGH & LOW vent required including a Velocity Diffuser

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

- Designers need to be familiar with special requirements of Local Authorities. ie - Minimum falls from Septic tank outlets to Land application areas etc
- Plumbers are reminded good construction techniques as per AS1547 are especially important in these soil types. Refer AS1547 & AES installation Instructions

AES System Calculator Outcomes			AES dimensions		
Total System load - litres / day (Q).	720	l/d		AES System	System Extension
Min Length of AES pipe rows to treat loading	9.47	lm	Length:(L)	12.60m	12.60m
Number of FULL AES Pipe lengths per row	4	lths	Width:(W)	1.35m	4.36m
Total Capacity of AES System pipe in Litres	1696	ltr.	Sand Depth :	0.75m	0.15m
			Area m2	17.0 m^2	55.0 m^2
USE CUT LENGTHS OF PIPE IN THIS DESIGN? (ENTER Y)					
IF YOU WISH TO USE A TRENCH EXTENSION DESIGN OPTION ENTER "Y"				Enter Custom Width in metre	
AES INFILTRATION FOOT PRINT AREA - $L = Q / (DLR \times W)$			Minimum AES foot print required		
for this Basic Serial design is			Length	Width	
			12.600m	x 5.71m	= 72.0 m2 total

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

Code	AES System Bill of Materials.		Chankar Environmental Use Only
AES-PIPE	AES 3 metre Lengths required	8 lths	
AESC	AES Couplings required	6 ea	
AESO	AES Offset adaptors	4 ea	
AESODV	AES Oxygen demand vent	2 ea	
AES-IPB	AES 100mm Inspection point base	2 ea	
TD Kit 4	4 Hole Distribution Box Kit	ea	
TD Kit 7	7 Hole Distribution Box Kit	ea	
VS43-4	Sweet Air Filter VS43-4	ea	
AES DESO	Double Offset Adaptors	ea	
TOTAL SYSTEM SAND REQUIRED (Estimate Only)		25 m3	
Please email your AES Calculator (EXCEL FORMAT), Site Layout & AES Design to			
<a href="mailto:designreview@enviro-septic.com.au">designreview@enviro-septic.com.au</a>			<a href="mailto:designreview@enviro-septic.com.au">designreview@enviro-septic.com.au</a>

> The AES Calculator is a design aid to allow checking of the AES components, configuration and is a guide only. Site and soil conditions referencing AS1547 are calculated and designed by a Qualified Wastewater Designer.

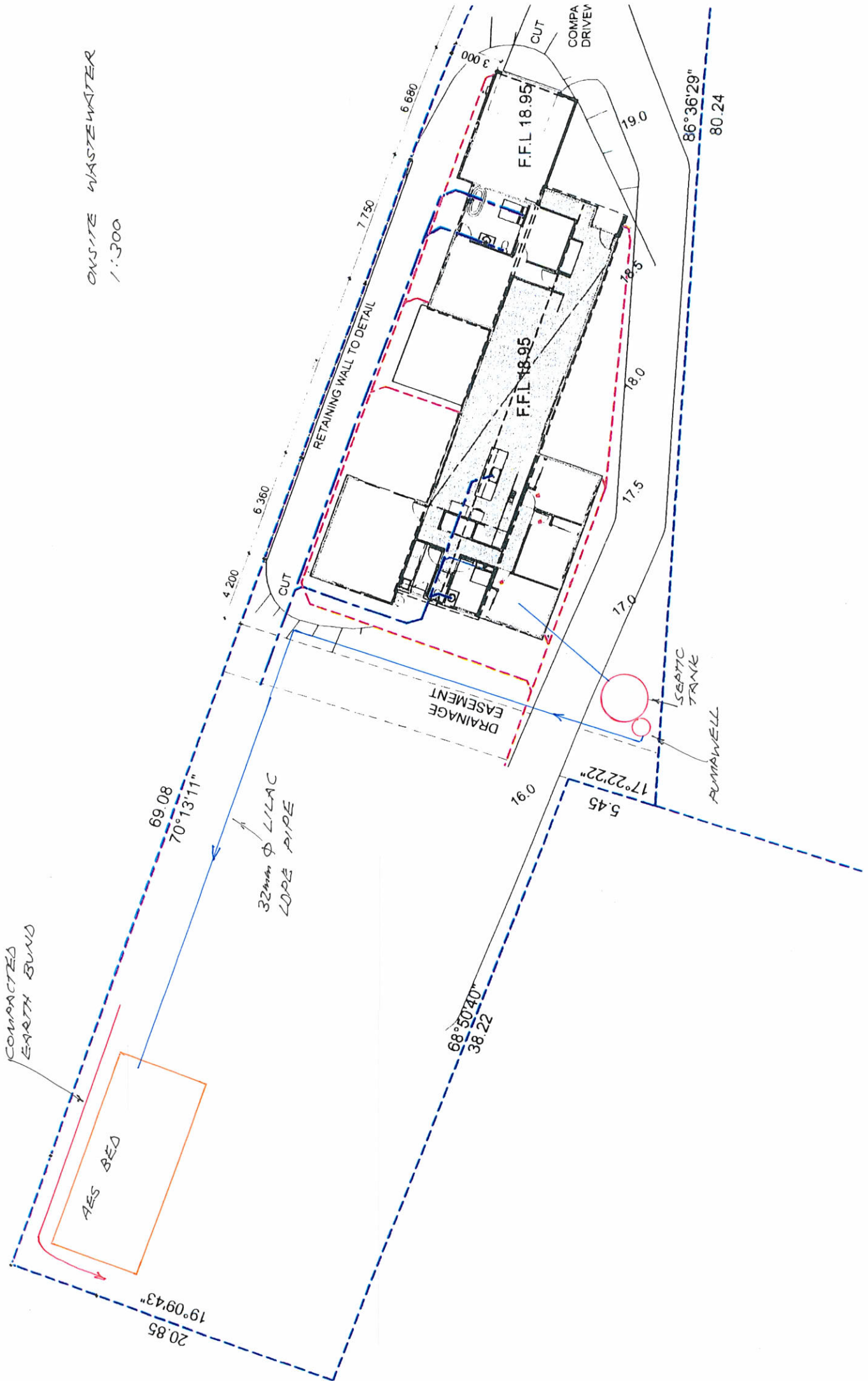
> Chankar Environmental accepts no responsibility for the soil evaluation, loading calculations or DLR entered by the designer for this calculator.

> AES pipes can be cut to length on site. They are supplied in 3 meter lengths only.

> AES ONLY supply AES components as detailed in the Bill of Materials.

> SEPTIC Tank & other components including SAND will need to be sourced from other suppliers. Refer to our WEBSITE [www.enviro-septic.com.au](http://www.enviro-septic.com.au) OR 07 5474 4055

ONSITE WASTEWATER  
1:300









## SITE AND SOIL EVALUATION REPORT

Soil Category:

Modified Emerson Test Required

No

1,...2,...3,...4,...5,...6

If Yes, Emerson Class No. ....

Measured or Estimated Soil Permeability (m/d):

1.0m/d

Design Loading Rate (DLR)

10 mm/day

Geology:

Triassic sediments

Slope:

1 degree

Drainage lines / water courses:

Nil

Vegetation:

Grass

Site History: (land use)

Unknown

Aspect:

South / southwest

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?

Yes

Date of Site Evaluation:

4/4/2023 & November 2025

Weather Conditions:

Fine

Mitchell Fehlberg

ROCK SOLID GEOTECHNICS PTY LTD

Peter Hofto

163 Orielson Rd

Orielton

TAS 7172

0417960769

[peter@rocksolidgeotechnics.com.au](mailto:peter@rocksolidgeotechnics.com.au)

27/11/2025

### Loading Certificate for Onsite Wastewater System

37 Elise Drive, Dodges Ferry

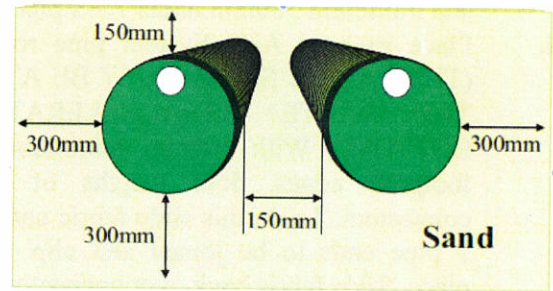
- 1 System Capacity:
  - (medium/long term) 4-bedroom residence - 6 persons, 720 litres/day
- 2 Design Criteria Summary:
  - Primary Treated Effluent 3000 litre Dual-purpose septic tank.
  - Soil Category Class 1 (SAND) over Class 5 (light CLAY)
  - Land Application System 12.6m long x 5.71m wide AES Bed
- 3 Reserve Area:
  - Reserve LAA available to the east of the residence if required.
- 4 Variation from design flows etc:
  - The system should successfully assimilate additional peak loadings which may result from occasional social gatherings provided that this does not exceed use by more than 10 persons in a 24-hour period or more than 2 temporary resident visitors (ie. up to 8 persons total) for a period not exceeding 4 days. Visitors should be advised of the requirement to minimise time spent in showers, not running taps whilst cleaning teeth, and other common sense water conservation measures.
- 5 Consequences of overloading the system:
  - Long term use by more than 6 residents or equivalent may result in overloading of the system, surfacing of effluent, public and environmental health nuisances, pollution of surface water etc.
- 6 Consequences of under-loading the system:
  - Nil.
- 7 Consequences of lack of operation, maintenance and monitoring attention:
  - The septic tank should be pumped at least every 3 years. The outlet filter should be cleaned every 6 months.

Peter Hofto  
Rock Solid Geotechnics Pty Ltd



## 1. SET OUT

- i. Set out should be in accordance with the design approved by Council.
- ii. The length of each run of AES System pipe must be horizontal
- iii. AES calculator footprint dimensions are based upon the DLR of the receiving soil and are the minimum footprint area.
- iv. Any system extension must be to the down slope side unless the infiltration footprint is level.



AES Sand Coverage Minimums

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

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

“L7.1 Good construction technique AS 1547:2010

The following excavation techniques shall be observed so as to minimise the risk of damage to the soil:

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



### CL7.1

*Damage can be done by:*

- (a) *Smearing, where the soil surface is smoothed, filling cracks and pores;*
- (b) *Compacting, where the soil porosity is reduced; and*
- (c) *Puddling, where washed clay settles on the base of the trench to form a relatively impermeable layer.*

*In particular, cohesive soils, or soils containing a significant quantity of clay, are susceptible to damage by excavation equipment during construction.*

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



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

- i. Place minimum 150mm system sand to extension area and minimum 300mm under AES pipe footprint area.
- ii. Place runs of AES System pipe roughly in position (THE FABRIC SEAM MUST BE AT THE TOP AND THE WHITE BIO-ACCELERATOR AT THE BOTTOM.) With 300mm minimum clearance to all footprint edges. Join lengths of AES with AES connectors. To do this slide fabric and fibre back on the 2 pipe ends to be joined and clip AES connector in place. Slide fabric back over connector.
- iii. Place offset adaptors on each run with the 100mm hole at the top.
- iv. Ensure minimum 150mm between AES system pipes. This can be done with pegs, short pieces of 150mm pvc or reusable AES Spacer Plates. One side provides the 300mm spacing required for minimum system sand. The opposite side must have a minimum of 300mm of system sand beyond the edge of the AES System pipe.
- v. Place system sand around AES pipes ensuring they stay level and in position. Remove and progressively position spacer plates or PVC pipe until all system pipes are surrounded by system sand to the top. **Walk sand between rows to aid compaction.**
- vi. EXTENSION SAND depth is a minimum of 150mm.



### 4. CONNECTING ROWS

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



### 5. VENTING

- i. Ensure the system has a High Vent and a low vent. As per design. Low vent is a minimum 150mm above ground. Vents can be located any distance from the system provide they have no water traps that can block oxygen flow through the system. The High Vent must be 3 meters higher than the low vent.
- ii. Pressurised or steep gravity systems will require a **Velocity Diffuser**

### 6. BACK FILLING

- i. Ensure a minimum of 150mm System sand covers the AES pipes and PVC pipe work.
- ii. Refer to the Onsite design and Council approval and ensure that all diversions drains or site specific requirements are correctly installed.
- iii. Back fill with natural soil and compact. System extensions may require compaction in a couple of layers depending on the depth.
- iv. On mounds and down slopes strip vegetation and place fill evenly and level to all sides to avoid breakout from low points during high seasonal loadings.
- v. Cover excavation area with topsoil creating a finished surface level 50 to 100mm higher than the natural surface level ensuring that water sheds off the land application area and does not pond, compact lightly and seed or grass when completed.

**For Installation support phone 0754744055**



# CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94  
Section 106  
Section 129  
Section 155

To: Mitchell Fehlberg

Owner name

Address

Suburb/postcode

Form **35**

## 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

Mitchell Fehlberg

Designer's project  
reference No.

GEOTECH 25-170

Address:

37 Elise Drive, Dodges Ferry

Lot No:

Type of work:

Building work ☐

Plumbing work ☒

(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
	<input type="checkbox"/> Building design	Architect or Building Designer
	<input type="checkbox"/> Structural design	Engineer or Civil Designer
	<input type="checkbox"/> Fire Safety design	Fire Engineer
	<input type="checkbox"/> Civil design	Civil Engineer or Civil Designer
	<input checked="" type="checkbox"/> Hydraulic design	Building Services Designer
	<input type="checkbox"/> Fire service design	Building Services Designer
	<input type="checkbox"/> Electrical design	Building Services Designer
	<input type="checkbox"/> Mechanical design	Building Service Designer
	Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	<input type="checkbox"/> Other (specify)	
Deemed-to-Satisfy:	Performance Solution: <input checked="" type="checkbox"/> (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: 27/11/2025
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 27/11/2025
Computations:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 27/11/2025
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:**

Advanced Enviro Septic Design & Installation Manual.  
Advanced Enviro Septic Design Installation Instructions & Home-Owner's Manual.  
All by Chandlers Environmental Pty Ltd

Site & Soil Evaluation and design report at 37 Elise Drive, Dodges Ferry, dated 27/11/2025

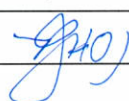
Form 55 by Rock Solid Geotechnics P/L, dated 27/11/2025, certifying Site & Soil Evaluation Report

**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.

	<i>Name: (print)</i>	<i>Signed</i>	<i>Date</i>
Designer:	Peter Hofto		27/11/2025
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:**

- ☒ The works will not increase the demand for water supplied by TasWater
- ☒ 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
- ☒ The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- ☒ The works will not damage or interfere with TasWater's works
- ☒ The works will not adversely affect TasWater's operations
- ☒ The works are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- ☒ I have checked the LISTMap to confirm the location of TasWater infrastructure
- ☒ 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](http://www.taswater.com.au)

Name: (print)

Signed

Date

Designer:

Peter Hofto

27/11/2025

# CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Mitchell Fehlberg  
Owner /Agent  
Address  
Suburb/postcode

## Qualified person details:

Qualified person: Peter Hofto - Rock Solid Geotechnics P/L  
Address: 163 Orierton Road  
Orierton 7172  
Phone No: 0417960769  
Fax No:  
Licence No: CC6159I  
Email address: [peter@rocksolidgeotechnics.com.au](mailto:peter@rocksolidgeotechnics.com.au)

Qualifications and Insurance details: BSc (Hons) – Geology / Geophysics  
PI Insurance – Lloyds Underwriting  
Policy Number ENG 22000391  
(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)  
Speciality area of expertise: Site & Soil Evaluation & Land Application System Design  
(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

## Details of work:

Address: 37 Elise Drive, Dodges Ferry  
Lot No:  
Certificate of title No:  
The assessable item related to this certificate: Onsite wastewater management – site & soil evaluation for onsite wastewater management capacity, including;  
Characterisation of wastewater and predicted hydraulic loadings,  
Selection of onsite wastewater treatment system,  
Selection of land application area,  
Determination of design loading rate.  
(description of the assessable item being certified)  
Assessable item includes –  
- a material;  
- a design  
- a form of construction  
- a document  
- testing of a component, building system or plumbing system  
- an inspection, or assessment, performed

## Certificate details:

Certificate type: On-site wastewater management – Site & Soil Evaluation  
(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:

AS 1547:2021 On-site domestic wastewater management

Relevant  
calculations:

References:

AS/NZS 1547.2012 - Onsite domestic wastewater management

Director's Guidelines for Onsite Wastewater Management – CBOS - 2017

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

Site & Soil Evaluation & Design Report at 37 Elise Drive, Dodges Ferry by Rock Solid Geotechnics P/L dated 27/11/2025

*Scope and/or Limitations*

Exclusions: Design of AES Bed

**I certify the matters described in this certificate.**

Qualified person:

*Signed:*



*Certificate No:*

**GEOTECH  
25-170**

*Date:*

**27/11/2025**

# CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94  
Section 106  
Section 129  
Section 155

Form **35**

To: Mitchell Fehlberg

Owner name

Address

Suburb/postcode

## Designer details:

Name:

Stephen John Dennis

Category:

Building Services Designer  
Hydraulic - Restricted

Business name:

Phone No:

0417960769

Business  
address:

4/100 Rene Street

Noosaville

4566

Fax No:

Licence No:

373083211

Email address:

steve@enviro-septic.com.au

## Details of the proposed work:

Owner/Applicant

Mitchell Fehlberg

Designer's project  
reference No.

GEOTECH 25-170

Address:

37 Elise Drive, Dodges Ferry

Lot No:

Type of work:

Building work ☐

Plumbing work ☒ (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
	<input checked="" type="checkbox"/> Hydraulic design	Building Services Designer
	<input type="checkbox"/> Other (specify)	

Deemed-to-Satisfy:

Performance Solution: ☒ (X the appropriate box)

Other details:

Performance solution, consistent with NCC Vol 3 with respect to:  
Advanced Enviro Septic unit producing secondary treated effluent consistent with definition provided by Director's  
Guidelines for onsite wastewater management systems 2017.



**Design documents provided:**

The following documents are provided with this Certificate –

*Document description:*

Drawing numbers:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 27/11/2025
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 27/11/2025
Computations:	Prepared by: ROCK SOLID GEOTECHNICS	Date: 27/11/2025
Performance solution proposals:	Prepared by: Stephen Dennis	Date: 27/11/2025
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:**

Advanced Enviro Septic Design & Installation Manual.  
Advanced Enviro Septic Design Installation Instructions & Home-Owner's Manual.  
All by Chandlers Environmental Pty Ltd

Site & Soil Evaluation and design report by Rock Solid Geotechnics P/L at 37 Elise Drive, Dodges Ferry,  
dated 27/11/2025

Form 55 by Rock Solid Geotechnics P/L, 37 Elise Drive, Dodges Ferry dated 27/11/2025, certifying Site & Soil  
Evaluation Report.

**Attribution as designer:**

I, Stephen Dennis, am responsible for the design of that part of the work as described in this certificate;

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

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

	Name: (print)	Signed	Date
Designer:	Stephen Dennis		27/11/2025
Licence No:	373083211		

## 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:**

- ☒ The works will not increase the demand for water supplied by TasWater
- ☒ 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
- ☒ The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- ☒ The works will not damage or interfere with TasWater's works
- ☒ The works will not adversely affect TasWater's operations
- ☒ The works are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- ☒ I have checked the LISTMap to confirm the location of TasWater infrastructure
- ☒ 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, Stephen Dennis, 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](http://www.taswater.com.au)

	Name: (print)	Signed	Date
Designer:	Stephen Dennis		27/11/2025



# CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Mitchell Fehlberg  
Owner /Agent  
Address  
Suburb/postcode

## Qualified person details:

Qualified person: Stephen John Dennis  
Address: PO Box 1556  
Noosaville 4566  
Phone No: 0455 826 203  
Fax No:  
Licence No: 373083211  
Email address: stevedennis913@gmail.com

Qualifications and Insurance details: BEng(Hons), GradDipMgt  
(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Speciality area of expertise: Professional Engineering Wastewater Design  
NER, NPER, CPEng, APEC, IntPE(Aust), RPEQ20663  
(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

## Details of work:

Address: 37 Elise Drive, Dodges Ferry  
Lot No:  
Certificate of title No:

The assessable item related to this certificate: Design of an onsite wastewater management system.  
(description of the assessable item being certified)  
Assessable item includes –  
- a material;  
- a design  
- a form of construction  
- a document  
- testing of a component, building system or plumbing system  
- an inspection, or assessment, performed

## Certificate details:

Certificate type: Design of an onsite wastewater management system.  
(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

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

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

OR

☐ a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:

*Geotech 25-170 Rock Solid Geotechnics P/L*

Relevant  
calculations:

References:

NCC Vol 3. Refer to AES Tasmania NCC Performance Solution V4.

AS/NZS 1547.2012 - Onsite domestic wastewater management

Director's Guidelines for Onsite Wastewater Management 2017

Advanced Enviro Septic Design & Installation Manual,  
Advanced Enviro-Septic Installation Instructions and,  
Home Owner's Manual; all by Chankar Environmental Pty Ltd, 62 Rene Street, Noosaville QLD  
4566

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

Confirmation of the performance solution for design of Advanced Enviro-Septic System on 27/5/2024.

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

*Scope and/or Limitations*

Exclusions: All works other than the above.

**I certify the matters described in this certificate.**

Qualified person:

*Signed:*

*Certificate No:*

*Date:*

27/11/2025



SITE INFORMATION

LAND TITLE REFERENCE	CT 158772/6	
TERRAIN CATEGORY	TC2.5	TERRAIN WITH A FEW OBSTACLES
WIND CLASSIFICATION	N2	SITE CLASSIFICATION TO AS4055-2006 REPORT BY PETER HOFTO ROCK SOLID GEOTECHNICS PTY LTD
SHIELDING CLASSIFICATION	PS	PARTIAL SHIELDING
SOIL CLASSIFICATION	M	SITE CLASSIFICATION TO AS2870-2011 REPORT BY PETER HOFTO ROCK SOLID GEOTECHNICS PTY LTD
CLIMATE ZONE	7	www.abcb.gov.au map
BAL LEVEL	LOW	N/A
CORROSION ENVIRONMENT	MODERATE	FOR STEEL SUBJECT TO THE INFLUENCE OF SALT WATER, BREAKING SURF OR HEAVY INDUSTRIAL AREAS, REFER TO BCA SECTION 3.4.2.2 & BCA TABLE 3.4.4.2. CLADDING AND FIXINGS TO MANUFACTURERS RECOMMENDATIONS.
OTHER HAZARDS	N/A	HIGH WIND, EARTHQUAKE, FLOODING, LANDSLIP , DISPERSIVE SOILS, SAND DUNES, MINE SUBSIDENCE, SNOW AND ICE OR OTHER RELEVANT FACTORS.

DRAWING INDEX

- A01 COVER SHEET
- A02 SITE PLAN
- A03 FLOOR PLAN
- A04 ELEVATIONS
- A05 ELEVATIONS
- A06 DRAINAGE PLAN
- A07 STORMWATER CONNECTION

AREA SCHEDULE

SITE AREA	: 2026m²
FLOOR AREA : RESIDENCE	: 240.35m²
FLOOR AREA : GARAGE	: 35.22m²
FLOOR AREA : PORCH	: 1.99m²
FLOOR AREA : ALFRESCO	: 22.5m²



Sorell Council

Development Application: Development  
Application - 37 Elise Drive, Dodges Ferry.pdf

Plans Reference:P1  
Date Received:3/12/2025

			PROPOSED CLASS 1a DWELLING 37 ELISE DRIVE DODGES FERRY	BUILDING DESIGNER CHRISTOPHER.G.KEAN CC17176 PH:0417 534 776	CLIENT: MR M. FEHLBERG	ADDRESS: 37 ELISE DRIVE DODGES FERRY	DRAWING TITLE COVER SHEET	Scale: NTS	Date: 02/10/2025
A.	ISSUED FOR D.A	05/11/2025						Project #	
REV.	AMENDMENT	DATE						0110/2025	SHEET #A01

NOTES & LEGEND

SOIL AND WATER  
MANAGEMENT STRATEGIES

DOWNPIPES TO BE CONNECTED INTO RAINWATER  
STORAGE TANK AS SOON AS ROOF IS INSTALLED

INSTALL AG DRAIN TO CUT AREA PRIOR TO  
FOOTING EXCAVATION.

----- DENOTES 100mm SEWER

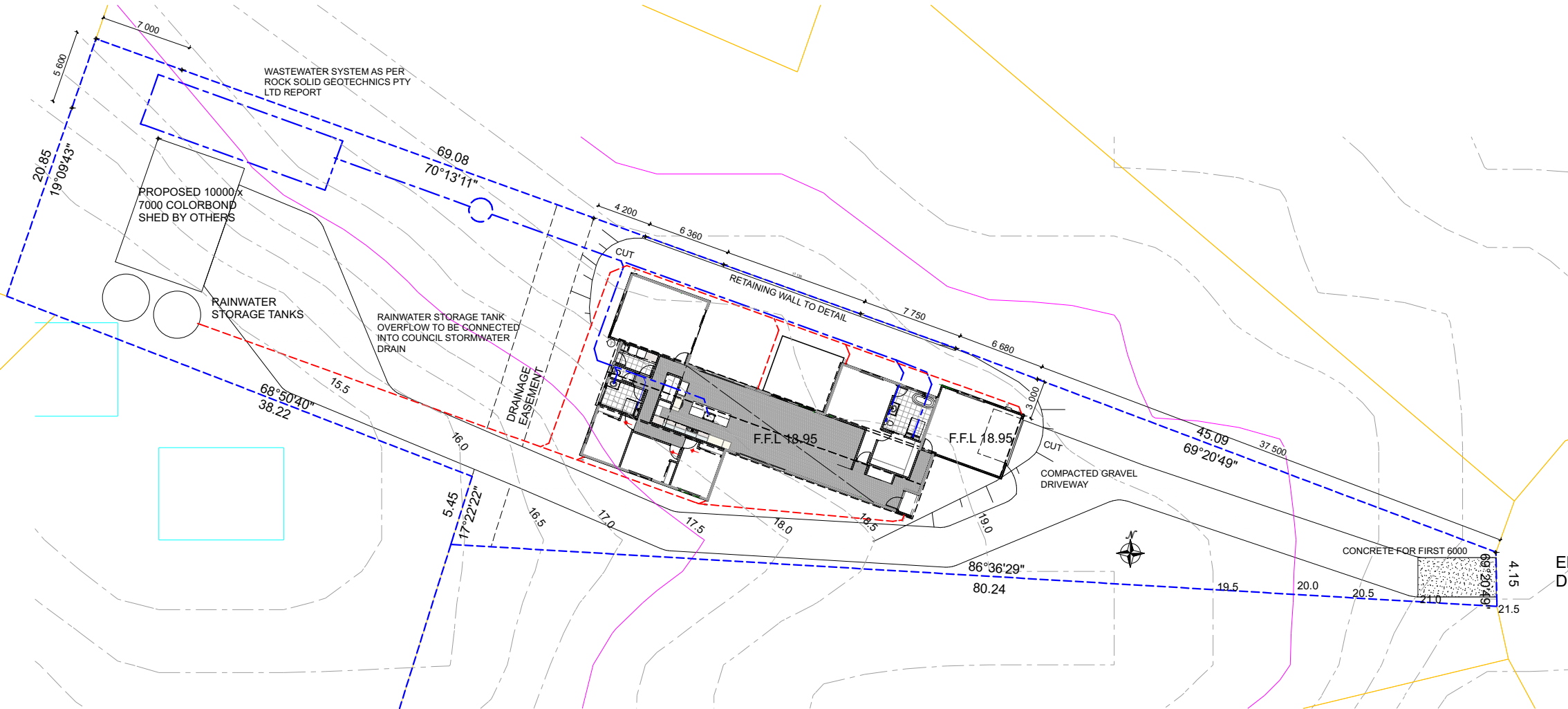
----- DENOTES 90mm STORMWATER

EXCAVATED MATERIAL TO BE PLACES UPSIDE OF  
AG DRAIN. TO BE REMOVED WHEN BUILDING  
WORKS ARE COMPLETE AND USED AS FILL ON  
SITE FOR ANY LOW POINTS. INSTALL A SEDIMENT  
FENCE ON DOWNSLOPE OF MATERIAL.

CONSTRUCTION VEHICLES TO BE PARKED ON THE  
STREET OR THE DRIVEWAY ONCE GRAVEL IS  
COMPACTED, TO PREVENT TRANSFERRING  
DEBRIS ONT CHAFFEYS DRIVE.

SOIL AND WATER  
MANAGEMENT STRATEGIES  
(SECTION 121 OF THE BUILDING ACT)

IF EXCAVATION IS TO A LEVEL BELOW THAT OF  
THE ADJOINING OWNERS FOOTING, ALONG THE  
TITLE BOUNDARY OR WITHIN 3 METRES OF A  
BUILDING BELONGING TO AN ADJOINING OWNER,  
THE BUILDER MUST (AS A MINIMUM) PROVIDE AND  
MAINTAIN A GUARD TO SUPERVISE THE  
EVCAVATION. ADJOINING OWNER TO BE NOTIFIED  
USING FORM 6(BUILDING AND PROTECTION WORK  
NOTICE) BY THE BUILDING SURVEYOR



**SITE PLAN**  
SCALE 1:400



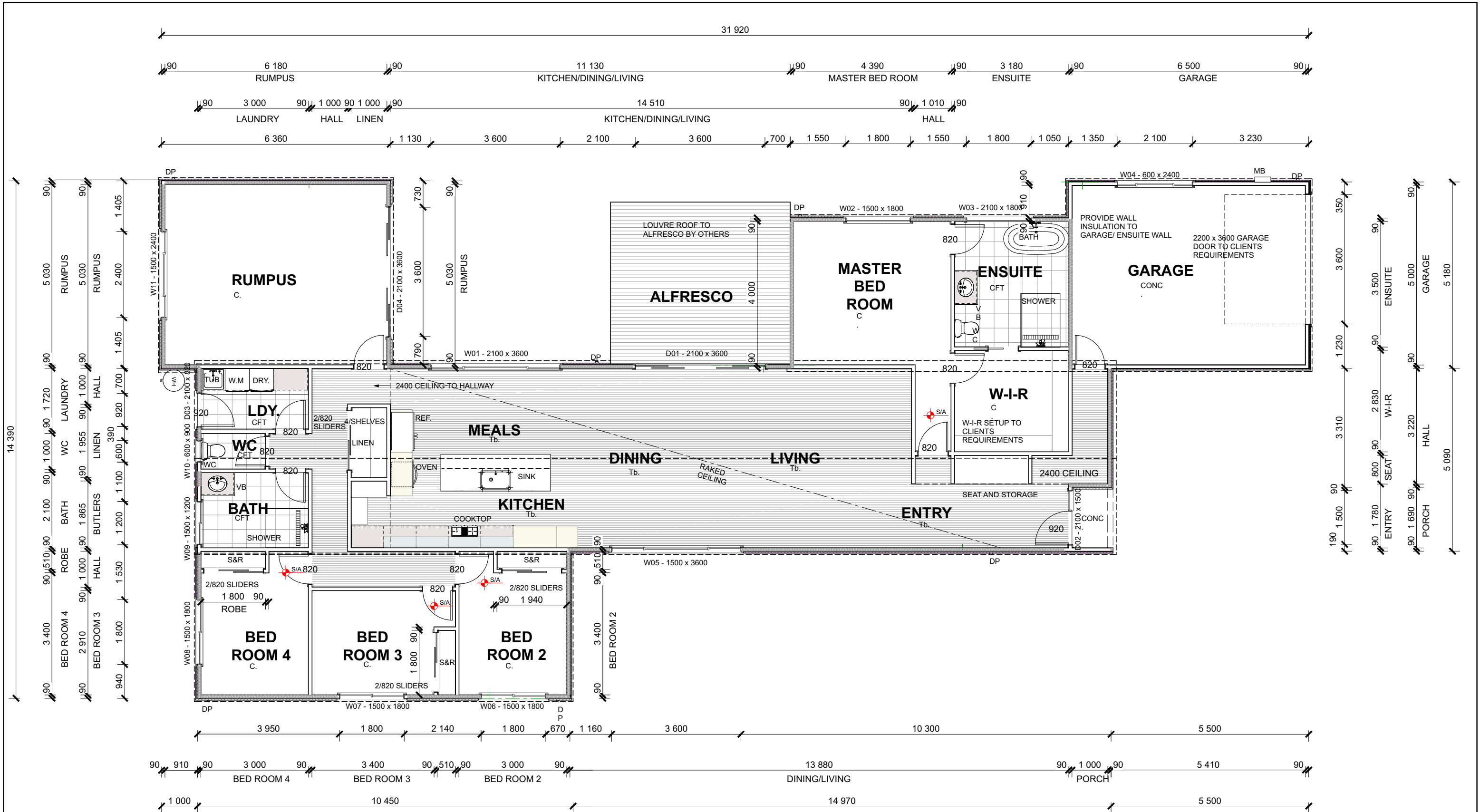
**Sorell Council**

Development Application: Development  
Application - 37 Elise Drive, Dodges Ferry.pdf

Plans Reference:P1  
Date Received:3/12/2025

			PROPOSED CLASS 1a DWELLING 37 ELISE DRIVE DODGES FERRY	BUILDING DESIGNER CHRISTOPHER.G.KEAN CC17176 PH:0417 534 776	CLIENT: MR M. FEHLBERG	ADDRESS: 37 ELISE DRIVE DODGES FERRY	DRAWING TITLE SITE PLAN	Scale: 1:400 Date: 02/10/2025
A.	ISSUED FOR D.A	05/11/2025						
REV.	AMENDMENT	DATE						Project # 0110/2025 SHEET #A02





**FLOOR PLAN**  
SCALE 1:100



**Sorell Council**

Development Application: Development  
Application - 37 Elise Drive, Dodges Ferry.pdf

Plans Reference:P1  
Date Received:3/12/2025

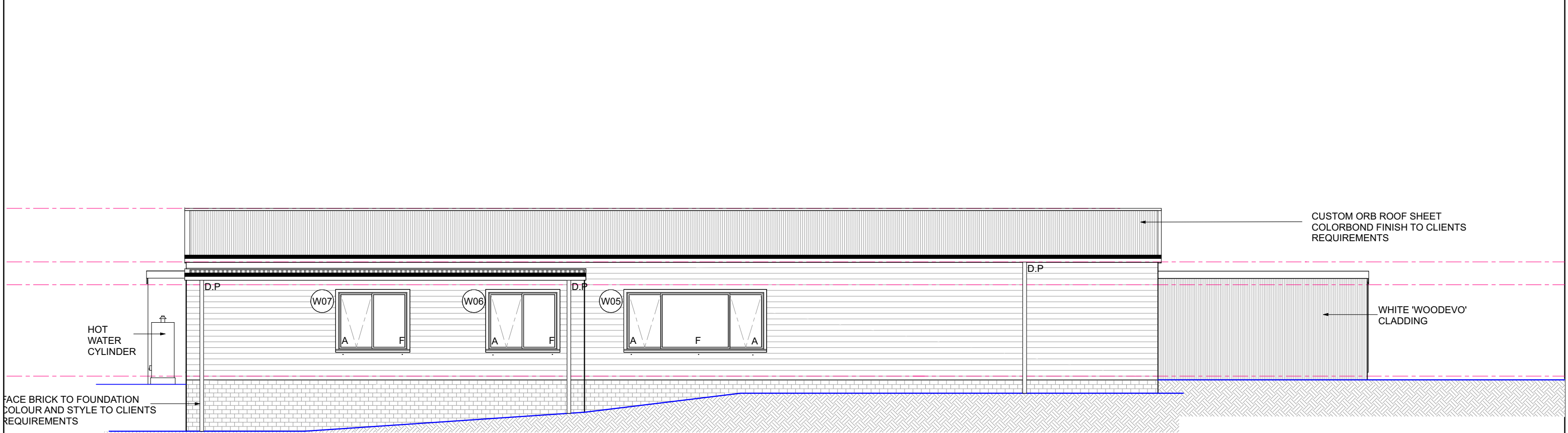
**LEGEND AND NOTES**

- 90mm STUD WALL WITH R2.5HD BATTS, 10mm PLASTERBOARD LINING INTERIOR AND FC CLADDING TO EXTERIOR
- 90mm STUD WALL WITH 10mm PLASTERBOARD LINING EACH SIDE U.N.O

- HWC- HOT WATER CYLINDER
- CONC.- CONCRETE FLOOR FINISH
- CFT. - CERAMIC FLOOR TILES
- C. - CARPET WITH AIRSTEP STEP MAX (OR EQUIVALENT) FOAM UNDERLAY

- Tb. VINYL TIMBER BOARDS COLOUR AND STYLE TO CLIENTS REQUIREMENTS
- Td. TIMBER DECKING BOARDS 136 x 25 SPOTTED GUM OR SIMILAR BUSHFIRE RATED TIMBER
- DP. 100Ø DOWNPIPE
- MB. METER BOX

			PROPOSED CLASS 1a DWELLING 37 ELISE DRIVE DODGES FERRY	BUILDING DESIGNER CHRISTOPHER.G.KEAN CC17176 PH:0417 534 776	CLIENT: MR M. FEHLBERG	ADDRESS: 37 ELISE DRIVE DODGES FERRY	DRAWING TITLE FLOOR PLAN	Scale: 1:100 Date: 02/10/2025
REV.	AMENDMENT	DATE						Project # 0110/2025 SHEET #A03

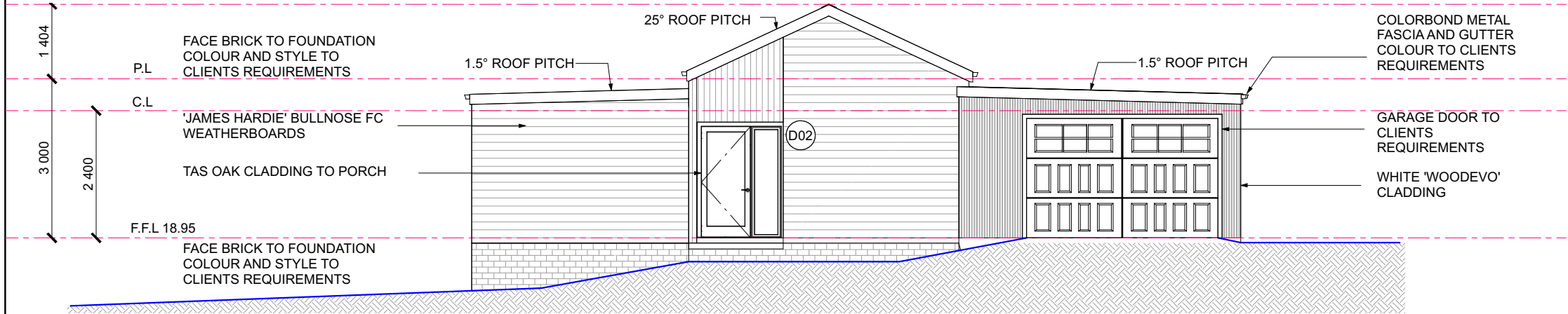


**SOUTH WEST ELEVATION**  
SCALE 1:100



REFER TO ENERGY REPORT FOR FULL GLAZING DETAILS

GLAZING SCHEDULE				
No.	WINDOW SIZE	OPERATION	GLASS TYPE	GLASS TYPE
W01	2100H x 3600W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W02	1500H x 1800W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W03	2100H x 1800W	FIXED	CLEAR DOUBLE GLAZING	ALUMINIUM
W04	600H x 2400W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W05	1500H x 3600W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W06	1500H x 1800W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W07	1500H x 1800W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W08	1500H x 1800W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W09	1500H x 1200W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W10	600H x 900W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM
W11	1500H x 2400W	AWNING	CLEAR DOUBLE GLAZING	ALUMINIUM

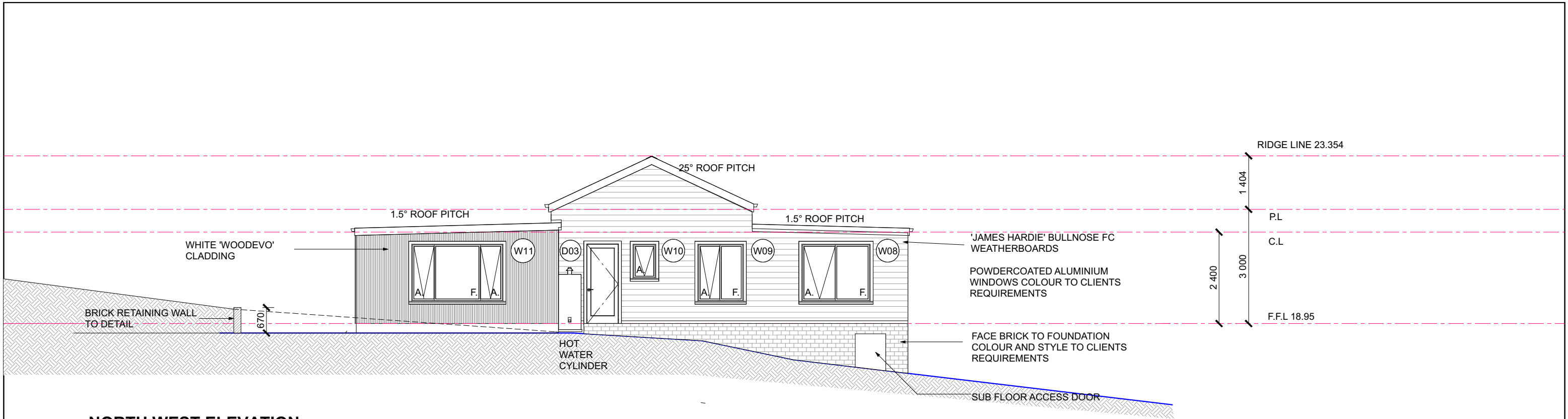


**SOUTH EAST ELEVATION**  
SCALE 1:100

GLAZED DOORS				
D01	2100H x 3600W	SLIDING	CLEAR DOUBLE GLAZING	ALUMINIUM
D02	2100H x 1520W	SWING FIXED	CLEAR DOUBLE GLAZING	ALUMINIUM
D03	2100H x 920W	SWINGING	CLEAR DOUBLE GLAZING	ALUMINIUM
D04	2100H x 3600W	SLIDING	CLEAR DOUBLE GLAZING	ALUMINIUM

			PROPOSED CLASS 1a DWELLING 37 ELISE DRIVE DODGES FERRY	BUILDING DESIGNER CHRISTOPHER.G.KEAN CC17176 PH:0417 534 776	CLIENT: MR M. FEHLBERG	ADDRESS: 37 ELISE DRIVE DODGES FERRY	DRAWING TITLE DWELLING ELEVATIONS	Scale: 1:100 Date: 02/10/2025
A.	ISSUED FOR D.A	05/11/2025						
REV.	AMENDMENT	DATE						

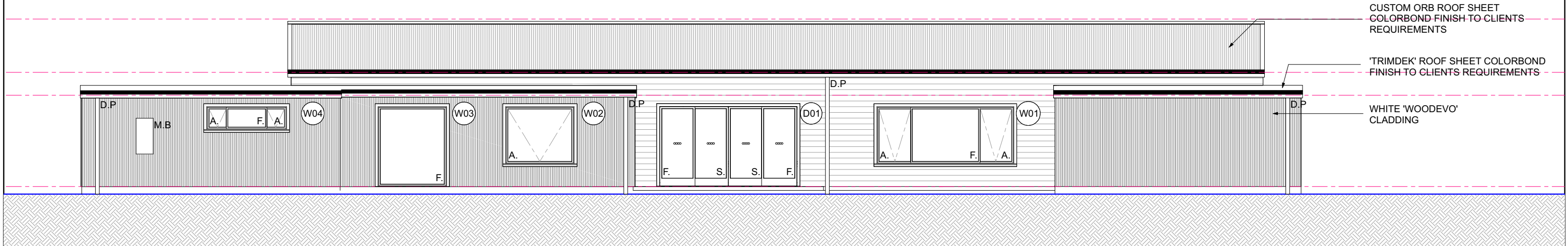




**NORTH WEST ELEVATION**  
SCALE 1:100



**Sorell Council**  
Development Application: Development  
Application - 37 Elise Drive, Dodges Ferry.pdf  
  
Plans Reference:P1  
Date Received:3/12/2025



**NORTH EAST ELEVATION**  
SCALE 1:100

PROPOSED CLASS 1a DWELLING 37 ELISE DRIVE DODGES FERRY			BUILDING DESIGNER CHRISTOPHER.G.KEAN CC17176 PH:0417 534 776		CLIENT: MR M. FEHLBERG	ADDRESS: 37 ELISE DRIVE DODGES FERRY	DRAWING TITLE DWELLING ELEVATIONS	Scale: 1:100	Date: 02/10/2025
A.	ISSUED FOR D.A	05/11/2025						Project #	
REV.	AMENDMENT	DATE						0110/2025	SHEET #A05

STORMWATER LINE 100mm UPVC

SEWER LINE	100mm UPVC
------------	------------

INSTALL INSPECTION OPENINGS AT MAJOR BENDS FOR  
STORMWATER AND ALL LOW POINTS OF DOWNPIPES

ALL PLUMBING AND DRAINAGE TO BE IN ACCORDANCE WITH  
LOCAL COUNCIL REQUIREMENTS

## SERVICES

THE HEATED WATER SYSTEM MUST BE DESIGNED AND  
INSTALLED IN ACCORDANCE WITH PART B2 OF NCC VOLUME  
THREE - PLUMBING CODE OF AUSTRALIA

THERMAL INSULATION OF HEATED WATER PIPING MUST:  
 A) BE PROTECTED AGAINST THE EFFECTS OF WEATHER AND SUNLIGHT  
 B) BE ABLE TO WITHSTAND TEMPERATURES WITHIN THE PIPING  
 C) USE THERMAL INSULATION IN ACCORDANCE WITH AS/NZS 4859.1

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 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 SUBFLOOR OR A ROOF SPACE

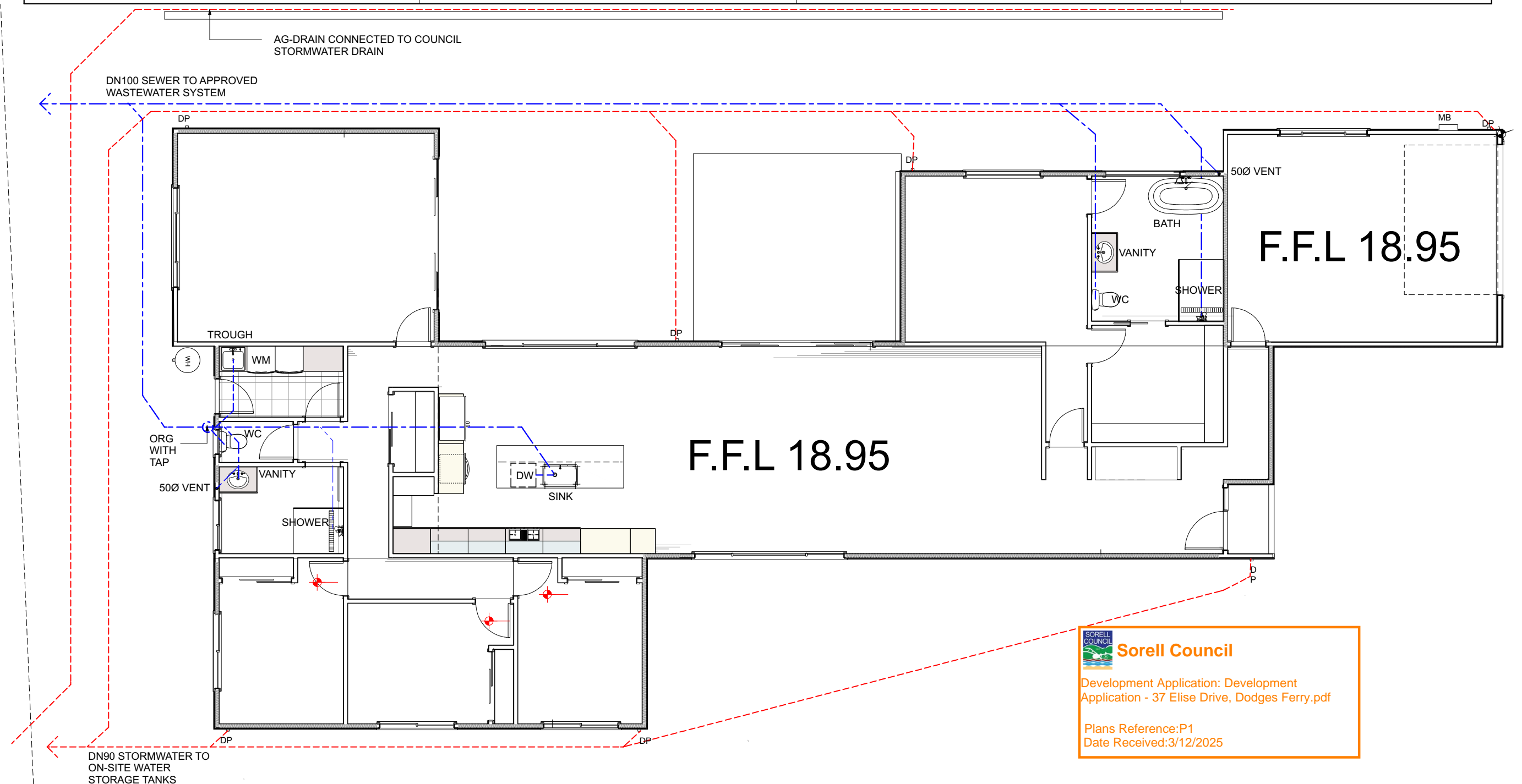
A) ALL FLOW AND RETURN PIPING  
B) COLD WATER SUPPLY PIPING AND RELIEF VALVE PIPING  
WITHIN 500mm OF THE CONNECTION TO CENTRAL WATER  
HEATING SYSTEM

MUST HAVE A MINIMUM R-VALUE OF 0.6 (IE 25mm OF CLOSED CELL POLYMER INSULATION)

PIPING PASSING WITHIN AN INSULATED TIMBER FRAMED WALL,  
SUCH AS THAT PASSING THROUGH A WALL STUD, IS  
CONSIDERED TO COMPLY WITH THE ABOVE INSULATION  
REQUIREMENTS

## FIXTURES LEGEND

SINK : 50mm DIAMETER  
DW : 50mm DIAMETER  
TROUGH : 50mm DIAMETER  
WC : 100mm DIAMETER  
VANITY : 50 DIAMETER  
SHOWER : 500mm DIAMETER  
BATH : 50mm DIAMETER  
DP : 90mm DIAMETER

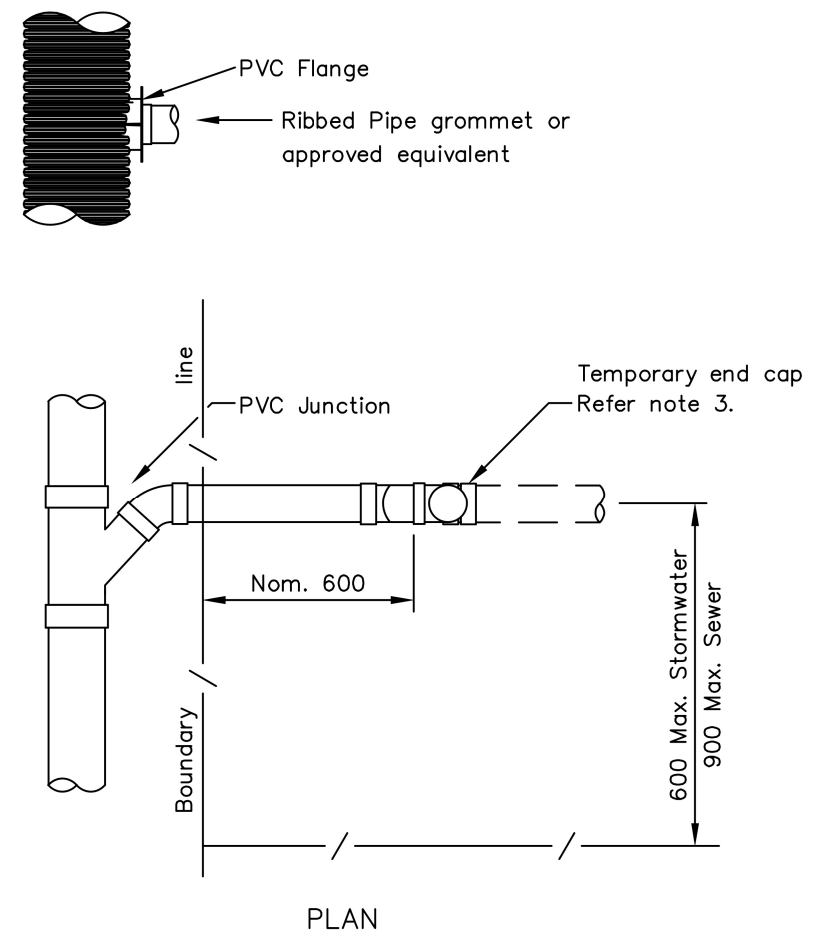
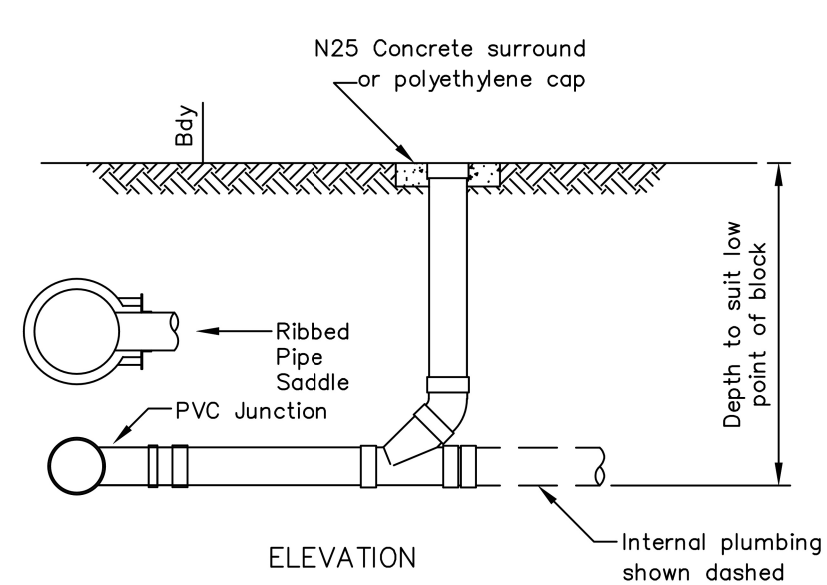


**Sorell Council**

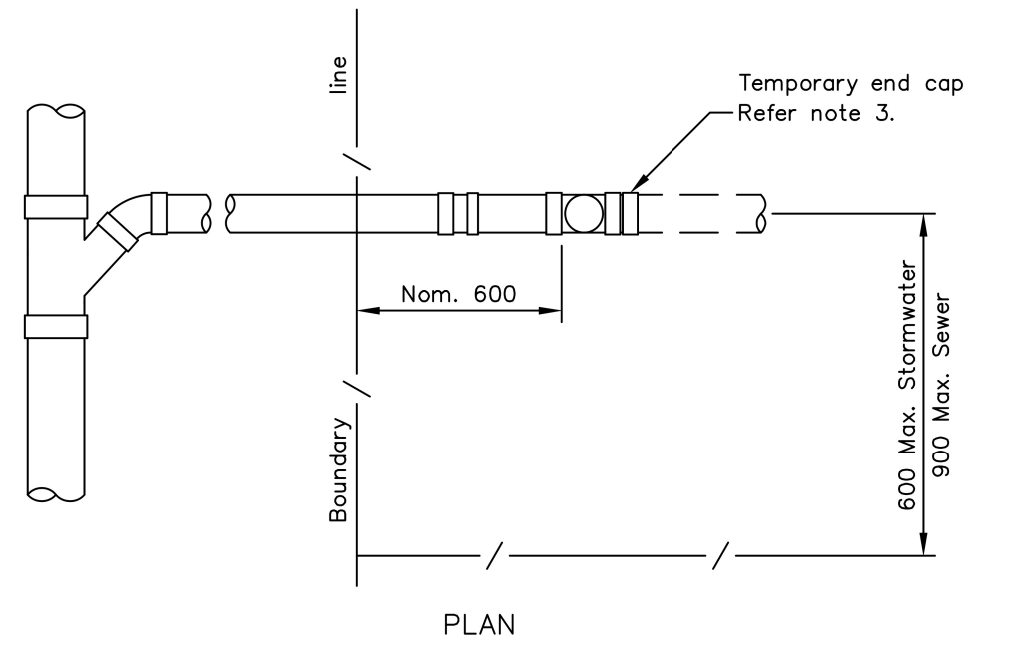
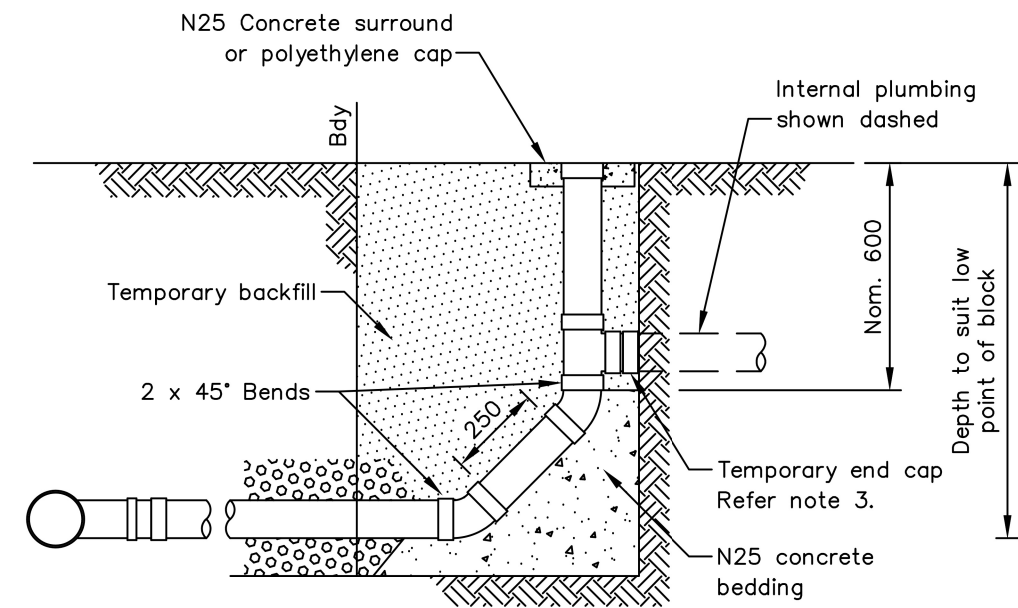
Development Application: Development Application - 37 Elise Drive, Dodges Ferry.pdf

Plans Reference:P1  
Date Received:3/12/2025

			<b>PROPOSED CLASS 1a DWELLING</b> <b>37 ELISE DRIVE DODGES FERRY</b>	<b>BUILDING DESIGNER</b> <b>CHRISTOPHER.G.KEAN</b> <b>CC17176</b> <b>PH:0417 534 776</b>	<b>CLIENT:</b> <b>MR M. FEHLBERG</b>	<b>ADDRESS:</b> <b>37 ELISE DRIVE</b> <b>DODGES FERRY</b>	<b>DRAWING TITLE</b> <b>DRAINAGE PLAN</b>	<b>Scale:</b> <b>1:100</b>	<b>Date:</b> <b>02/10/2025</b>
A.	ISSUED FOR D.A	05/11/2025						<b>Project #</b> <b>0110/2025</b>	<b>SHEET #A06</b>
REV.	AMENDMENT	DATE							

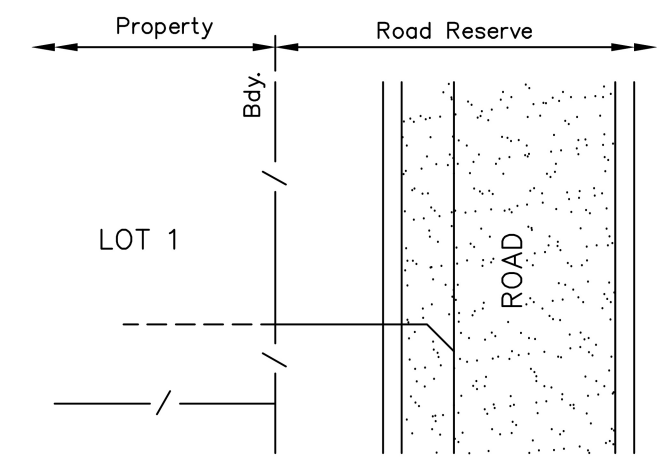


TYPICAL OBLIQUE BRANCH CONNECTION  
(MAIN LOCATED OUTSIDE BOUNDARY)

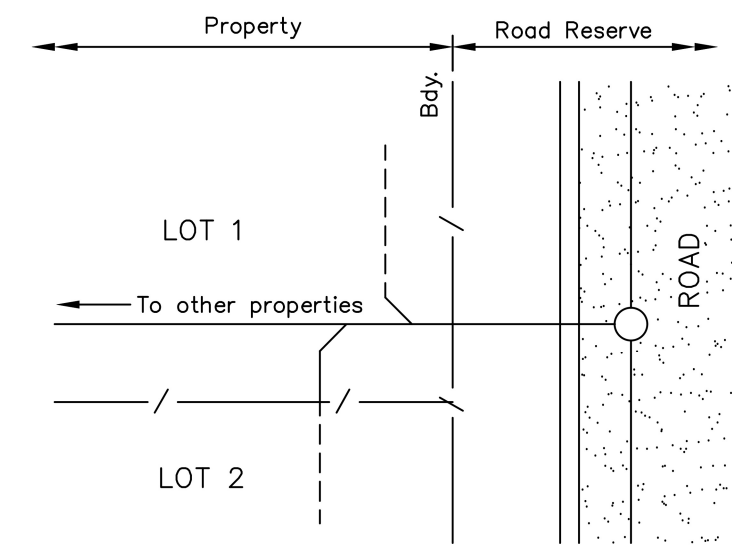


TYPICAL JUMP CONNECTION

- NOTES
1. Pipe bedding and backfill in accordance with Standard Drawing TSD-G01
  2. Jump up to be used on all stormwater connections deeper than 2.0m.
  3. Survey completed main by CCTV and submit report by DVD. (All new sub-division installation)
  4. Push caps to be used on all stormwater connections



MAIN IN ROAD RESERVE



MAIN IN PRIVATE PROPERTY

MAINTENANCE RESPONSIBILITY

- Local Council
- Property Owner