

## PLANNING APPLICATION FORM

Section 57 & 58

OFFICE USE  
ONLY

Application Number **PA2025340**

Assess No: **A6170**

PID No: **1933187**

|                               |                                            |  |             |  |               |  |
|-------------------------------|--------------------------------------------|--|-------------|--|---------------|--|
| <b>Applicant Name:</b>        | 1Earth Architecture and Project Management |  |             |  |               |  |
| <b>Applicant Contact Name</b> |                                            |  |             |  |               |  |
| <b>Postal Address:</b>        |                                            |  |             |  |               |  |
| <b>Contact Phone:</b>         | <b>Home</b>                                |  | <b>Work</b> |  | <b>Mobile</b> |  |
| <b>Email Address:</b>         |                                            |  |             |  |               |  |

## Planning Application Lodgement Checklist

**The following documents have been submitted to support the consideration of this application:**

1. A current copy of the property title text, folio plan and schedule of easements (**Appendix A**) ☒ ☐
2. A completed application form including a detailed description of the proposal ☒ ☐
3. A complete plan set: ☒ ☐
  - a) Floor plans N/A ☐
  - b) Elevations (from all orientations/sides and showing natural ground level and finished surface level) N/A ☐
  - c) Site Plan showing: **Proposed Subdivision Plan by Nova Pty Ltd (Appendix B)** ☒ ☐
    - Orientation ☒
    - All title boundaries ☒
    - Location of buildings and structure (both existing and proposed) N/A, only an indicative minimum building footprint size and location within setback requirements are required for subdivision
    - Setbacks from all boundaries ☒
    - Native vegetation to be removed N/A
    - Onsite services, connections and drainage details (including sewer, water and stormwater) ☒
    - Cut and/or Fill N/A
    - Car parking and access details (including construction material of all trafficable areas) ☒
    - Fence details – N/A Refer to Planning Report for details regarding Schedule of Easements
    - Contours ☒
4. Other:
  - Landslide Risk Assessment Report and Site Classification (by GeoTon Pty Ltd) **Appendix C**

*If submitting plans in over the counter please ensure they are A3.*

Application Number: «Application\_Number»

*All plans must be to scale.*

## APPLICANT DETAILS

|                        |                                             |
|------------------------|---------------------------------------------|
| <b>Applicant Name:</b> | 1Earth Architecture and Project Management. |
|------------------------|---------------------------------------------|

*Note: Full name(s) of person(s) or company making the application and postal address for correspondence.*

## LAND DETAILS

|                                                               |                      |
|---------------------------------------------------------------|----------------------|
| <b>Owner/Authority Name:</b><br>(as per certificate of title) | Ross and June Mezger |
|---------------------------------------------------------------|----------------------|

|                            |                         |
|----------------------------|-------------------------|
| <b>Location / Address:</b> | 20 Tanner Drive, Legana |
|----------------------------|-------------------------|

|                         |           |
|-------------------------|-----------|
| <b>Title Reference:</b> | 132648/24 |
|-------------------------|-----------|

|                 |                         |
|-----------------|-------------------------|
| <b>Zone(s):</b> | Low Density Residential |
|-----------------|-------------------------|

|                                  |                                                          |
|----------------------------------|----------------------------------------------------------|
| <b>Existing Development/Use:</b> | Residential – single dwelling located on 2523sqm of land |
|----------------------------------|----------------------------------------------------------|

|                                 |                                               |
|---------------------------------|-----------------------------------------------|
| <b>Existing Developed Area:</b> | The existing dwelling is approximately 242sqm |
|---------------------------------|-----------------------------------------------|

|                                                                                                                                                                    |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <b>Are any of the components in this Application seeking retrospective approval?<br/>E.g. Use and/or development that has commenced without a Planning Permit.</b> | NO |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|

|                                                  |
|--------------------------------------------------|
| (If yes please specify the relevant components): |
|--------------------------------------------------|

## DEVELOPMENT APPLICATION DETAILS

|                      |                                                  |                                                 |                                      |                                 |
|----------------------|--------------------------------------------------|-------------------------------------------------|--------------------------------------|---------------------------------|
| <b>Proposed Use:</b> | Residential: <input checked="" type="checkbox"/> | Visitor Accommodation: <input type="checkbox"/> | Commercial: <input type="checkbox"/> | Other: <input type="checkbox"/> |
|                      | ✓                                                |                                                 |                                      |                                 |

Description of Use:

A proposed residential subdivision with the creation of 2 lots from 1 lot to allow for future development of a single dwelling on proposed Lot 2. The proposed Lot 1 will contain the existing dwelling.

|                          |                                         |                                      |                                                  |                                 |
|--------------------------|-----------------------------------------|--------------------------------------|--------------------------------------------------|---------------------------------|
| <b>Development Type:</b> | Building work: <input type="checkbox"/> | Demolition: <input type="checkbox"/> | Subdivision: <input checked="" type="checkbox"/> | Other: <input type="checkbox"/> |
|                          | ✓                                       |                                      |                                                  |                                 |

Description of development:

Proposed residential subdivision – creation of 2 lots from 1 lot

|                                |                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>New or Additional Area:</b> | Subdivision of 1 lot into 2 lots - Proposed Lot 1 size: 1311sqm. Proposed Lot 2 size: 1212sqm. Refer to the Planning Report for details. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                 |                                    |
|-----------------------------------------------------------------|------------------------------------|
| <b>Estimated construction cost of the proposed development:</b> | < 50K for the proposed subdivision |
|-----------------------------------------------------------------|------------------------------------|

|                            |                |         |
|----------------------------|----------------|---------|
| <b>Building Materials:</b> | Wall Type: N/A | Colour: |
|----------------------------|----------------|---------|

# WEST TAMAR COUNCIL



Application Number: «Application\_Number»

|  |                |         |
|--|----------------|---------|
|  | Roof Type: N/A | Colour: |
|--|----------------|---------|

## VISITOR ACCOMMODATION ☒ N/A

|                                      |     |                                       |     |
|--------------------------------------|-----|---------------------------------------|-----|
| Gross Floor Area to be used per lot: | N/A | Number of Bedrooms to be used:        | N/A |
| Number of Carparking Spaces:         | N/A | Maximum Number of Visitors at a time: | N/A |

## SUBDIVISION ☐ N/A

Subdivision creating additional lots ☒  
 Boundary adjustment with no additional lots created N/A ☐

|                                                                                                                                        |                                                                                                                                                                                                                                                                                                           |                             |   |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---|
| Number of Lots (existing) :                                                                                                            | 1                                                                                                                                                                                                                                                                                                         | Number of Lots (proposed) : | 2 |
| Description:                                                                                                                           | <p>Proposed residential subdivision – creation of 2 lots from 1 lot to allow for future development of a single dwelling on the proposed Lot 2. The proposed Lot 1 will contain the existing dwelling.</p> <p>20 Tanner Drive is already fully serviced with reticulated water, stormwater and sewer.</p> |                             |   |
| If applying for a subdivision which creates a new road(s), please supply three proposed names for the road(s), in order of preference: |                                                                                                                                                                                                                                                                                                           |                             |   |
| 1.                                                                                                                                     | N/A                                                                                                                                                                                                                                                                                                       |                             |   |
| 2.                                                                                                                                     |                                                                                                                                                                                                                                                                                                           |                             |   |
| 3.                                                                                                                                     |                                                                                                                                                                                                                                                                                                           |                             |   |

## COMMERCIAL, INDUSTRIAL OR OTHER NON-RESIDENTIAL DEVELOPMENT/USE ☒ N/A

|                     |                  |  |    |  |
|---------------------|------------------|--|----|--|
| Hours of Operation: | Monday / Friday: |  | To |  |
|                     | Saturday:        |  | To |  |
|                     | Sunday:          |  | To |  |

|                       |  |
|-----------------------|--|
| Existing Car Parking: |  |
| Proposed Car Parking: |  |

|                                    |  |
|------------------------------------|--|
| Number of Employees:<br>(Existing) |  |
| Number of Employees:<br>(Proposed) |  |

Application Number: «Application\_Number»

APPLICANT DECLARATION

**Owner:** As the owner of the land, I declare that the information contained in this application is a true and accurate representation of the proposal and I consent to this application being submitted and for Council Officers to conduct inspections as required for the proposal,

Name (print)

Signed

Date

**Applicant:** As the applicant, I declare that I have notified the owner of my intention to make this application and that the information contained in this application is a true and accurate representation of the proposal,  
(if not the owner)

Susan Mezger

Name (print)



Signed

16/10/25

Date

*Please Note: If the application involves Crown Land you will need to provide a letter of consent and this form signed by the Minister, or a delegated officer of the Crown with a copy of the delegation.*

**Crown  
Consent**  
(if required)

Name (print)

Signed

Date

**Chief  
Executive  
Officer**  
(if required)

Name (print)

Signed

Date

*If the subject site is accessed via a right of way, the owner of the ROW must also be notified of the application.*

**Right of Way Owner:**

N/A

As the applicant, I declare that I have notified the owner of the land encumbered by the Right Of Way, of my intent to lodge this application that will affect their land.

Name (print)

Signed

Date



|                                                                                                                              |                   |
|------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>SCHEDULE OF EASEMENTS</b>                                                                                                 | REGISTERED NUMBER |
| <b>NOTE:</b> THE SCHEDULE MUST BE SIGNED BY THE OWNERS<br>& MORTGAGEES OF THE LAND AFFECTED.<br>SIGNATURES MUST BE ATTESTED. | SP1 32648         |

PAGE 1 OF 1 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.

## Restrictive Covenants

The owner of lot 24 on the plan covenants with the Vendor (Nobelius Pty. Ltd.) and the owner of the balance land to the intent that the burden of this covenant shall run with and bind the Covenantor's lot and that the benefit may be annexed to and evolve with each and every part of the balance land to observe the following stipulations:

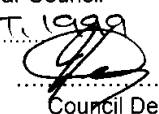
- (a) that there shall not be erected on such lot any buildings other than a private dwelling house and the buildings usually appurtenant thereto.
- (b) that there shall not be erected on such lot any dwelling house of a size less than 150 square metres exclusive of outbuildings.
- (c) that there shall not be erected on such lot or attached to any dwelling house or any outbuilding any advertisement, hoarding, bill or poster or any similar erection of an unsightly nature (except any notice of advertisement in the usual form for the sale or letting of such lot or any building erected thereon).
- (d) that there shall not be kept on such lot any greyhounds or poultry or any animals for commercial purposes PROVIDED HOWEVER that this condition shall not preclude the keeping at the rear of the dwelling house that may be located thereon a small number of fowls for domestic use.
- (e) not to remove or cut down any trees or vegetation from such lot without the prior approval of the West Tamar Council.

AND it is hereby declared that the Vendor shall have the right to alter modify amend release or waive any of the foregoing covenants, with the exception of covenant (e), without being required to consent of the owner of any part of the balance land and the exercise of such right by the Vendor shall not give the owner of any part of the balance land any right of action against the Vendor.

## Fencing Covenant

The owner of lot 24 on the plan covenants with the Vendor (Nobelius Pty. Ltd.) that the Vendor shall not be required to fence.

(USE ANNEXURE PAGES FOR CONTINUATION)

|                                                                                                                                  |                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| SUBDIVIDER: Nobelius Pty. Ltd.<br>FOLIO REF: volume 127507 folio 1<br>SOLICITOR<br>& REFERENCE: Douglas & Collins (Barry Sproal) | PLAN SEALED BY: West Tamar Council<br>DATE: 17TH AUGUST 1999<br>DATSLAS<br>REF NO. |
| <br>Council Delegate                        |                                                                                    |
| <b>NOTE:</b> The Council Delegate must sign the Certificate for the purposes of identification.                                  |                                                                                    |

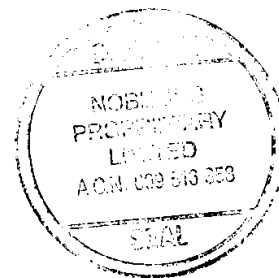
|                                                                          |                                      |
|--------------------------------------------------------------------------|--------------------------------------|
| <b>ANNEXURE TO<br/>SCHEDULE OF EASEMENTS</b><br>PAGE 2 OF 2 PAGES        | Registered Number<br><b>SP132648</b> |
| SUBDIVIDER: Nobelius Pty. Ltd.<br>FOLIO REFERENCE: volume 127507 folio 1 |                                      |

**Interpretation**

"The balance land" means the remaining in Certificate of Title volume 127507 folio 1 at the date of acceptance of the plan excluding lot 24 on the plan.

THE COMMON SEAL of Nobelius Pty. Ltd. (the registered proprietor of the land comprised in Certificate of Title volume 127507 folio 1) was hereunto affixed in accordance with its constitution in the presence of:

.....)Director  
 .....)Director/Secretary



THE COMMON SEAL of Tasmanian Trustees Limited (as Mortgagee of the land comprised in Certificate of Title volume 127507 folio 1) was hereunto affixed in accordance with its Board of Directors in the presence of:

.....)Director  
 .....)Director



**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.

# Planning Report

## Residential Subdivision – Creation of 2 lots from 1 lot

Address: 20 Tanner Drive, Legana (corner of Waterview Court and Tanner Drive)

Date: October 17th, 2025

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This report has been prepared by the applicant, 1Earth Architecture and Project Management, with approval from and on behalf of the property owners.



This report has reviewed by:

Nova Land Consulting Pty Ltd. James Stewart, Senior Town Planner.

| Version:   | Prepared By:                               | Date:    |
|------------|--------------------------------------------|----------|
| Version 01 | 1Earth Architecture and Project Management | 17/10/25 |
|            |                                            |          |

1.0 Introduction



This report has been prepared in support of a planning permit application under Section 57 of the *Land use Planning and Approval Act 1993* (the ‘Act’) to subdivide one lot into two lots at 20 Tanner Drive, Legana (the ‘subject site’).

This report provides an assessment of the site’s characteristics and demonstrates suitability and compliance for the subject site’s subdivision into two lots in respect to the following:

- The proposed subdivision’s adherence with the relevant planning controls of the municipal area
- The proposed subdivision’s adherence to the existing covenants (as per the Schedule of Easements) for the subject site;
- The proposed required changes to existing services (stormwater, sewer and water) and proposed connections for new services (stormwater, sewer and water) to serve each lot.

For the purpose of this report, the property owners are referred to as the ‘applicant’ for the planning permit application.

1.1 Summary

| Subject Site       |                         |
|--------------------|-------------------------|
| Address            | 20 Tanner Drive, Legana |
| Land Area          | 2,523m2                 |
| Property ID        | 1933187                 |
| Title              | 132648/24               |
| Planning Authority | West Tamar Council      |

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Covenant/Easements                          | The subject site is currently affected by Restrictive Covenants registered over the Certificate of Title by way of Schedule of Easements registered number SP132648. Refer Appendix A. Refer Section 3.1 f) of the Planning Report for the applicant's response.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Access                                      | Driveway and pedestrian access to the house is currently off Waterview Court, Legana.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Planning Controls</b>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Zones                                       | Low Density Residential Zone (10)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Overlays                                    | <p>According to Tas Alert and LISTmap, there is no foreseen risk in relation to Bushfire-Prone Area, Coastal Erosion, or Coastal Inundation.</p> <p>In regards to the Landslide Planning Map on LISTmap, the subject site triggers the Landslip Hazard Code and is designated predominately as a Low Landslip Hazard Band with a small area of Medium Landslip Hazard Band. However, it notes that there are no known landslides in the area. As required with the Landslip Hazard Code being triggered, the applicant engaged Geoton Pty Ltd to undertake Geotechnical investigations for the subject site and a Landslide Risk Assessment and Site Classification Report has been undertaken and recommendations provided. Refer to Appendix C for the Landslide Risk Assessment and Site Classification Report.</p> <p>Note: the subject site is not within the West Tamar Local Provisions Schedule (Code Number 15 and LPS reference number WTA-C15.0) Specific Area Plan - Residential Supply and Density Specific Area Plan which requires a minimum subdivision lot area of 5000sqm. Therefore, only the Tasmanian Planning Scheme – State Planning Provisions Development Standards for Subdivisions section 10.6.1 - Performance Criteria P1 will be addressed in relation to the acceptable subdividable area for the creation of two new lots being in accordance with the minimum lot requirements of 1200m<sup>2</sup>. Refer to Section 3.1 of this Report for the applicant's response.</p> |
| West Tamar Council Public Open Space Policy | Not applicable. As per <i>Section 2 Scope</i> , the subject site access from both Tanner Drive and Waterview Court are approximately 250m from the existing public open space (playground and dog park), which is well within the permissible exemption distance (400m) for a subdivision with 2 proposed lots. Refer to the above aerial image of the subject site and surrounding area with red dots show the walking path to the park.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Proposal</b>                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Proposed Use                                | Residential – Subdivision of one lot into two lots. Refer to Appendix B of the Proposed Subdivision Plan by Nova Land Consulting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                                                                                                                                                                                                                                                     |                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Use Class                                                                                                                                                                                                                                           | Subdivision is not required to be classified into a use class in accordance with Clause 6.2.6 of the Tasmanian Planning Scheme. |
| Use Status                                                                                                                                                                                                                                          | Not applicable                                                                                                                  |
| Proposed lot sizes to be created                                                                                                                                                                                                                    | Lot 1: 1311sqm Lot 2: 1212sqm                                                                                                   |
| <b>Existing Services and Infrastructure.</b>                                                                                                                                                                                                        |                                                                                                                                 |
| Note: A detailed survey has been undertaken and a survey plan attached of accurate existing and proposed services connections (as well as other typical survey information shown on the plan) undertaken by Nova Land Consulting. Refer Appendix B. |                                                                                                                                 |
| Water                                                                                                                                                                                                                                               | Within a TasWater serviced area                                                                                                 |
| Sewer                                                                                                                                                                                                                                               | Within a TasWater serviced area                                                                                                 |
| Stormwater                                                                                                                                                                                                                                          | Within a stormwater serviced area                                                                                               |
| Power                                                                                                                                                                                                                                               | Within a power serviced area                                                                                                    |

## 1.0 Site Characteristics and Surroundings

The subject site is located at 20 Tanner Drive, Legana, within the 'Low Density Residential' zone under the Tasmanian Planning Scheme – West Tamar. The subject site is a predominately regular shaped rectangular parcel of 2523m<sup>2</sup> with a cut out on the north-west corner. There is an existing dwelling located in the southern half of the subject site. The northern half of the site is landscaped around the perimeters with trees and shrubs, and the remainder of the area is lawn. Refer photos below.

Topographically, the subject site generally sits between the 8m and 14m AHD contours and gently slopes down toward the northern end of the block (Tanner Drive). Refer Appendix B for details. The subject site is fully serviced being connected to reticulated water, stormwater and sewer infrastructure.

The subject site is considered to have frontage to both Tanner Drive and Waterview Court. There is currently no direct vehicular access from Tanner Drive but the existing house has a nearby compliant existing vehicular access (with driveway crossover) off Waterview Court.

The subject site forms part of an established large residential subdivision from around 1999, which was undertaken by developer Nobelius Pty Ltd. The surrounding housing within the subdivision reflects a typical contemporary residential subdivision pattern, comprising predominately of single dwellings (one or two storey) consistent with the Low Density Residential Zone.

The subject site is in close proximity to the Public Open Space (dog park, walking trails and playground) located at 13 Tanner Drive. The distance from 20 Tanner Drive (NW corner of site) to the Public Open Space (13 Tanner Drive) is approximately 200m. Access from the existing driveway of the house (off Waterview Court) to the Public Open Space is approximately 250m. There is also a bus stop for public transport on Freshwater Point Road within 400m walking distance of the subject site.

### Planning Constraints:

1. The subject site is constrained by the LISTmap Landslip Hazard Code, mapped predominately Low with a small area of medium landslip hazard band codes. LISTmap notes that there have been no known landslides in the area.

As required with the Landslip Hazard Code being triggered, the applicant engaged Geoton Pty Ltd to undertake Geotechnical investigations for the subject site and a Landslip Risk Assessment Report and Site Classification has been undertaken and recommendations provided. Refer to Appendix C for the Landslip Risk Assessment Report and site classifications.

2. As outlined in Section 1.1, the site is unconstrained in planning terms in respect to there being no overlays within the Local Provisions Schedule in respect to the Tasmanian Strategic Flood

Map, Tasmanian Heritage Register, and Threatened Native Species. It is not also affected by the West Tamar Local Provisions Schedule Specific Area Plan.



Photo from the NE corner of the subject site towards the existing house



Photo from the NW corner of the subject site towards the existing house



Photo of the subject site from Waterview Court towards the NE corner of the site.

### 3. Tasmanian Planning Scheme: Response to Development Standards for Subdivision

#### 3.1 Lot Design

*The objective for 10.6.1 Lot Design as per the Tasmanian planning scheme is that each lot:*

- a) Has an area and dimensions appropriate for use and development in the zone*
- b) Is provided with appropriate access to a road: and*
- c) Contains areas which are suitable for development appropriate to the zone purpose, located to avoid natural hazards; and*
- d) is orientated to provide solar access for future dwellings.*

#### **Applicant's response:**

The proposal is to subdivide the subject site from 1 lot into 2 lots. The proposed Lot 1 contains an existing dwelling and the subdivision will allow for an additional dwelling to be constructed on Lot 2. The proposal takes advantage of existing public transport, a nearby public open space and existing infrastructure.

**Streetscape:** Access to the subject site is only from Beach Road into Tanner Drive. The streetscape of Tanner Drive is influenced by both General Residential Zone lots on the western end with single small and medium size dwellings on small lots (up to x size) and Low Density Residential Zone single medium to large size dwellings (up to x size) on the eastern end. The proposed subdivision lot sizes are visually consistent within this street and the surrounding area.

- There is adequate existing public transport with a bus stop on Freshwater Point Road (off Tanner Drive) within a 400 metre walk of the subject site. Access from this bus stop link to the Legana Shopping Centre and the wider region, and connects into the Launceston CBD.
- There is an existing public open space consisting of a dog park, playground and walking trails within 200 metres of the subject site, thereby negative the requirement to provide a public open space within the subdivision, as per the West Tamar Public Open Space Policy.

- Only residential use is proposed as part of this application. Accordingly, there will be no potential for unreasonable loss of amenity associated with noise, traffic generation, or other off-site impacts of a non-residential nature.

10.6.1 P1 is addressed below by the applicant in response to the criteria –

*Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:*

- The relevant requirements for development of buildings on the lots;*
- The intended location of buildings on the lots;*
- The topography of the site;*
- Adequate provision of private open space;*
- The pattern of development existing on established properties in the area;*
- Any constraints to development,*

*And must have an area no less than 1200m<sup>2</sup>.*

**Applicant's response:**

Refer to the proposed subdivision plan prepared by Nova Land Consulting (Appendix B) in conjunction with the following responses.

**Area of no less than 1200m<sup>2</sup>:** The proposal seeks approval for the subdivision of one existing lot into two lots. The existing subject site is 2523 sqm. The subdivision size of each of the two new proposed lots (Lot 2 – 1212sqm and Lot 1 - 1311sqm) are compliant with P1 with each lot being no less than 1200m<sup>2</sup>. These proposed lot sizes are within the existing range of lot sizes within Tanner Drive and the surrounding area in Legana. For example, Tanner Drive has several smaller lots ranging from 670sqm up to 2500sqm, and large lots above 2500sqm. Waterview Crescent has lot sizes ranging from 1500sqm upwards. The surrounding streets of Legana also have a similar range of lot sizes. Refer to the LISTmap plan image below: the areas in blue are lot sizes less than the proposed subdivision lot sizes; the area in red are the proposed two lot sizes for 20 Tanner Drive, and the lot sizes unmarked are larger than the proposed two lot sizes for 20 Tanner Drive.



- a) As the relevant requirements for development of buildings on the lots have no specific listed requirements listed in P1, Section A1 a) will be referred to for applicable requirements: Lot 2 will easily be able to contain a minimum area of 10mx15m with a gradient not steeper than 1 in 5 and all Lot 2 setbacks for development are shown on the plan to be compliant with clause 10.4.3 A1 – 8 metres from front boundaries, and 5 metres from side and rear boundaries. It is noted above in section 1 that the subject site is already connected to reticulated water, stormwater and sewer. As documented on the proposed subdivision plan (Appendix B), the existing reticulated water, stormwater and sewer will be capped and utilised for proposed Lot 2. For proposed Lot 1, Appendix B documents the location for the proposed reticulated water, sewer and stormwater; noting that a new water meter is proposed for Lot 1. Initial investigations indicate that an additional dwelling for Lot 2 will not negatively affect the services infrastructure capacity for reticulated water, sewer and stormwater.
- b) Note that an indicative minimum area (10x15m = 150sqm) and indicative building footprint location has been provided for the subdivision application. As it is shown on the plan, the potential building location may change as part of a new building application, but will be located within the permissible setback requirements. In addition, as per the building footprint, and in accordance with the Restrictive Covenants on the subject site, the minimum dwelling size will be 150sqm and may have a larger footprint with the design of the dwelling being part of a building application, noting that setback requirements and other Tasmanian Planning Scheme requirements will also be adhered to as part of a building application.
- c) Proposed Lot 2 is a relatively flat parcel of land with a gentle slope towards the northwest (Tanner Drive), and has a gradient of no more than 1 in 5 as demonstrated on the proposed subdivision plan. Lot 2 is topographically between the 8m and 10.9AHD contours. Lot 1 (where the existing house is located) is topographically between the 11m and 14m AHD contours and the embankment to the north of the house slopes down toward the northwestern end of the block (Tanner Drive).
- d) As demonstrated on the proposed subdivision plan, there is adequate provision of private open space for both Lots 1 and 2. The proposed lot sizes and development area of Lot 1 and 2 are compatible with the amenity and character of Tanner Drive and the surrounding area by providing for:
- adequate outdoor areas to meet both the recreational and functional requirements of future occupants;
  - sufficient opportunity for the establishment of gardens and landscaping to soften the built form; and
  - ensures private open space with a high level of solar access and amenity.
- e) The established pattern of development along Tanner Drive and within the surrounding area comprises a mix of single and double-storey dwellings of varied scale and architectural expression. The proposed lot size for Lot 2 has been designed to comfortably accommodate a future single or double-storey dwelling that will sit proportionately within this context. The lot dimensions and minimum size building envelope (150sqm) will enable a dwelling to be constructed within the required setbacks and height limitations, ensuring the future development will be consistent in scale and character with existing dwellings and within the range of existing lot sizes. As a result, the proposed subdivision will support a future built form that integrates harmoniously with the established streetscape and contributes positively to the visual continuity of Tanner Drive and Waterview Court.
- f) The relevant constraints to development on the subject site, are as follows:
1. As per the Schedule of Easements regarding Restrictive Covenants, there are no proposed changes to these Restrictive Covenants and the proposed subdivision plan complies. Note: a minimum of 150sqm applies for a residential dwelling, and this Restrictive Covenant will be adhered to within the allowable boundary setbacks. In

addition, there is a fencing covenant on the subject site stipulating that the owner of the subject site is not required to fence. It is noted, that the majority of the existing site is fenced. Refer to Appendix A for details of the Restrictive Covenants.

2. Geoton Pty Ltd (Geotechnical Engineers) have undertaken an assessment regarding Landslip Risk and site classifications. Refer to Appendix C for details regarding requirements for an acceptable future development of a dwelling on proposed Lot 2.

### **3.2 Minimum Frontage requirements for subdivided lots**

*Each lot, or a lot proposed in a plan of subdivision excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 20 metres.*

#### **Applicant's Response:**

As per 10.6.1 A2, all frontages on Lots 1 and 2 comply with this criterion, as shown with dimensioning of the proposed lot sizes in Appendix B, with frontages on both Waterview Court and Tanner Drive being more than the minimum required frontage of 20 metres.

### **3.3 Vehicular Access for subdivided lots**

*Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.*

#### **Applicant's Response:**

As documented on the proposed subdivision plan, Appendix B, the existing lot (Lot 1) has an existing and compliant vehicular access (driveway) from the boundary of the lot to Waterview Court. For Lot 2, there is a proposed vehicular access off Tanner Drive as located on the proposed subdivision plan, Appendix B. Both the location and construction materials of the Vehicular Crossing (Driveway) will be designed in accordance with the relevant local driveway policy. The construction material of the crossover will be constructed from either broom finished concrete or asphalt as per the requirements of the local road authority. Note that there is no footpath on the southern side of Tanner Drive, adjacent the subject site.

### **3.4 Roads**

#### **Applicant's Response:**

Not applicable, as there are no new proposed roads within the subdivision of two lots.

### **3.5 Parking and sustainable transport code**

Clause C2.0 Parking and sustainable transport code applies. The parking arrangements for the existing dwelling will not be changed. Parking arrangements for lot 2 will be considered as part of a future dwelling application, noting that there will be ample room provided on Lot 2 to accommodate parking associated with a dwelling.

### **3.6 Road and Railway Assets Code**

Clause C3.0 applies due to a new crossover for lot 2.

It is requested that the West Tamar Council considers the vehicle crossing for lot 2 as being exempt under clause 4.2.5 *Exempt infrastructure use or development* in the Tasmanian Planning Scheme in the form of written consent from the council.

## **Conclusion**

This planning report inclusive of the proposed subdivision plan (Nova Land Consulting) for the creation of 2 lots from 1 lot and the Landslip Risk Assessment Report (Geoton Pty Ltd), demonstrates compliance with the following:

- The relevant criteria of the Tasmanian Planning Scheme – State Planning Provisions;
- The relevant West Tamar Local Planning Scheme criteria
- Restrictive Covenants contained within the Schedule of Easements for the subject site.

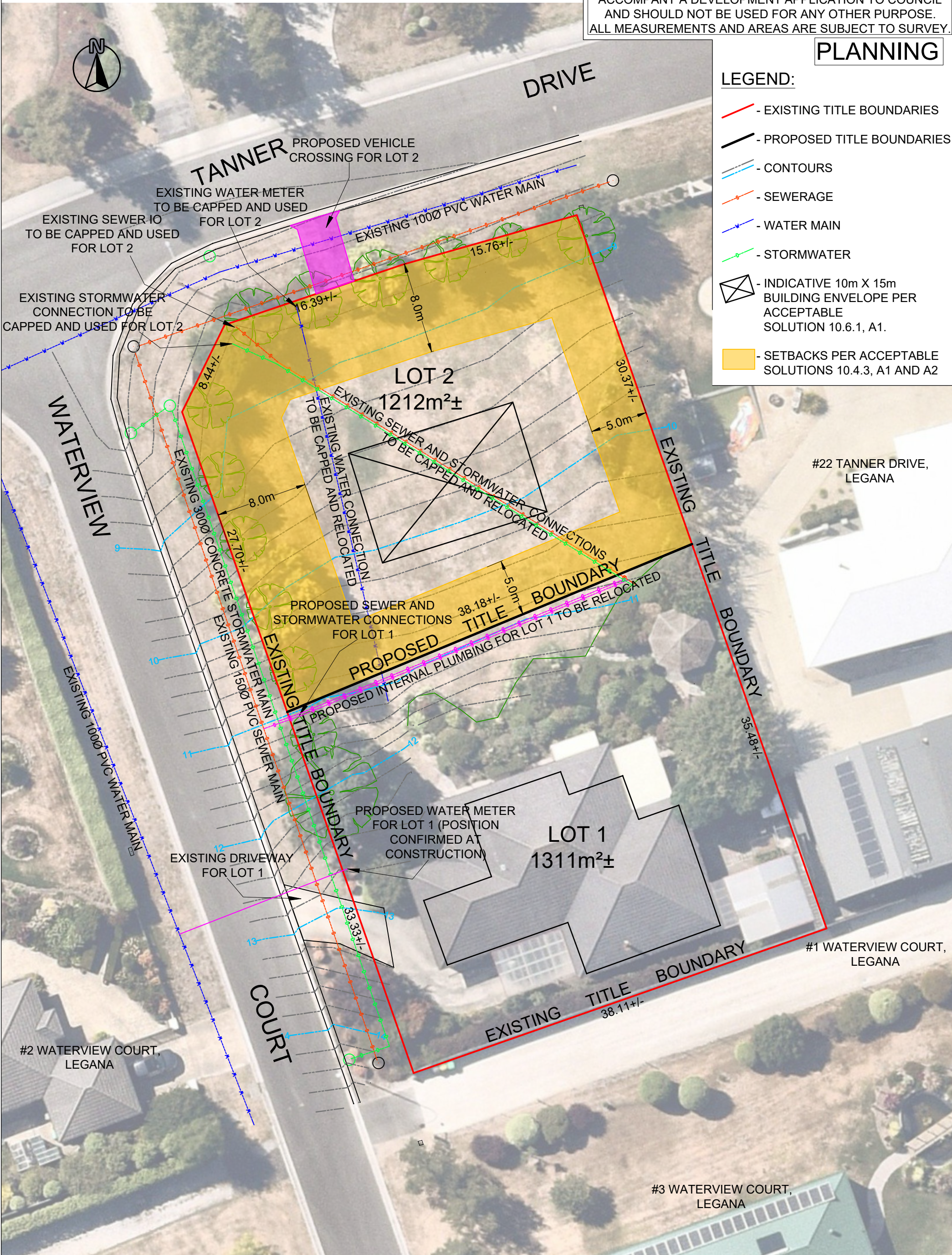
The applicant requests approval by the West Tamar Council for a planning permit application in respect to the subdivision of the subject site into two lots.

THIS PLAN WAS PREPARED AS A PROPOSAL PLAN TO ACCOMPANY A DEVELOPMENT APPLICATION TO COUNCIL AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE. ALL MEASUREMENTS AND AREAS ARE SUBJECT TO SURVEY.

## PLANNING

### LEGEND:

- EXISTING TITLE BOUNDARIES
- PROPOSED TITLE BOUNDARIES
- CONTOURS
- SEWERAGE
- WATER MAIN
- STORMWATER
- INDICATIVE 10m X 15m BUILDING ENVELOPE PER ACCEPTABLE SOLUTION 10.6.1, A1.
- SETBACKS PER ACCEPTABLE SOLUTIONS 10.4.3, A1 AND A2



6 October 2025

Reference No. GL25548Ab

Ross and June Mezger  
20 Tanner Drive  
LEGANA TAS 7250

Dear Sir and Madam,

**RE:   Landslide Risk Assessment and Site Classification  
      20 Tanner Drive, Legana**

We have pleasure in submitting herein our report detailing the results of the geotechnical investigation conducted at the above site.

Should you require clarification of any aspect of this report, please contact Bassam AL-Sinayyid on 03 6326 5001.

For and on behalf of Geoton Pty Ltd



**Tony Barriera**

Director – Principal Geotechnical Engineer

| Rev No. | Date       | Written By    | Reviewed By | Description |
|---------|------------|---------------|-------------|-------------|
| Ab      | 06/10/2025 | B AL-Sinayyid | T Barriera  | Original    |

## 1 INTRODUCTION

A limited scope investigation has been conducted for Joshua Armstrong at the site of a proposed residential subdivision and development at 20 Tanner Drive, Legana.

A review of the Land Information System Tasmania (LIST) website shows the site is located within low to medium landslide hazard bands, and hence an area of doubtful stability. As such, the purpose of the investigation is to conduct the following:

- A landslide risk assessment;
- An assessment of the general subsurface conditions at the site and consequently assigning a Site Classification in accordance with AS 2870 – 2011 "Residential Slabs and Footings"; and
- An assessment of the surrounding topography and provide a Wind Classification in accordance with AS 4055:2021 "Wind Loads for Housing".

In addition, the investigation is required to satisfy the Landslide Hazard Code of the Tasmanian Planning Scheme – West Tamar (Section C15.6.1 - Building and works within a landslip hazard area) and Section C15.7.1 (subdivision within a landslip hazard area).

A draft site plan of the proposed subdivision was provided, prepared by Nova Land Consulting, Project No. L250825, Drawing No. L250825\_PropPlan\_250925, dated 25.09.2025.

The plans indicate that the proposed subdivision will create two residential lots. The existing residence will be contained within the new 1,311m<sup>2</sup> Lot 1, whilst Lot 2, with an area of 1,212m<sup>2</sup>, will form the vacant balance.

## 2 ASSESSMENT METHODOLOGY

The assessment presented herein is based on the methodology promoted by the Australian Geomechanics Society, AGS (2007) Landslide Risk Management.

By way of an extract from AGS (2007a) "Guideline for Landslide Susceptibility, Hazard and Risk Zoning for Land Use Planning":

***"Landslide Risk Zoning takes the outcomes of hazard mapping and assesses the potential damage to persons (annual probability the person most at risk loses his or her life) and to property (annual value of property loss) for the elements at risk, accounting for probability and vulnerability."***

The methodology adopted for this assessment was to:

- Develop a landslide inventory for the site, employing the publicly available landslide mapping carried out by the Mineral Resources Tasmania (MRT);
- Findings of the geotechnical site investigation;
- Undertake assessments of the landslides relating to the site in terms of historical likelihood; and

- Undertake risk assessments, in terms of both risk-to-property and risk-to-life for critical structures within the site and relevant surrounding areas.

### **3 BACKGROUND**

#### **3.1 Geology**

The Mineral Resources Tasmania (MRT) Digital Geological Atlas 1:25,000 Series, indicates the site is predominantly located on Cretaceous - Quaternary period sediments comprising poorly consolidated clay, silt, and clayey labile sand with rare gravel and lignite; some iron oxide-cemented layers and concretions; some leaf fossils.

The northern portion of the site is mapped as Cretaceous - Quaternary period sediments comprising late Cenozoic terrace deposits of uncertain composition, generally <5m extending to approximately 15m above sea or river level, gravel layers above sea level.

#### **3.2 Landslide Hazards**

Examination of the LIST Landslide Planning Map – Hazard Bands Overlay, indicates that the site is mapped within low to medium landslide hazard bands.

The Landslide Hazard Bands are shown on Drawing 1 - Site Plan, attached.

##### **3.2.1 Landslide Inventory**

Examination of the MRT Tasmanian Landslide Hazard series, Windermere – Landslide Inventory sheet, 1:25,000 scale, indicates that the site is predominantly located within a possible landslide of unknown activity (Landslide ID: 4759).

An extract of the Landslide Inventory Map is provided as Drawing 2, attached.

##### **3.2.2 Geomorphology**

Examination of the MRT Tasmanian Landslide Hazard series, Windermere – Geomorphology sheet, 1:25,000 scale, indicates that the site has mapped hill slope angles of between 2° to 13°. The northern portion of the site is mapped as a degraded fluvial terrace remnant. A spring or water seepage feature is mapped immediately upslope of the site.

An extract of the Geomorphology Map is provided as Drawing 3, attached.

##### **3.2.3 Landslide Susceptibility**

Examination of the MRT Tasmanian Landslide Hazard series, Windermere – Slide Susceptibility sheet, 1:25,000 scale, indicates that the uphill southern portion of the site and localised area within the middle portion of the site, along the proposed boundary of Lot 1 and Lot 2, are mapped as source areas (that correlates to the medium hazard band), i.e. “an area of hillside with the potential to form slope failure, identified largely on the basis of slope angle and geology”. The areas immediately upslope of source

areas are mapped as regression areas, i.e. “An area up-slope of a source area that could fail following a landslide movement (a.k.a retrogression or set-back area)”

Furthermore, the downhill areas of source areas are mapped as runout areas, i.e. “An area down-slope of a source area where the moving earth, debris or rock can potentially travel”.

An extract of the Landslide Susceptibility Map is provided as Drawing 4, attached.

## **4 FIELD INVESTIGATION**

The field investigation was conducted on 15 September 2025 and involved the following:

- Engaging an underground service locator to clear nominated test location;
- A site walkover and review of the ground surface features of the site and surrounding landforms;
- The drilling of 2 boreholes by 4WD mounted auger rig to depths of between 5.3m and 6.3m; and
- Conducting insitu vane shear strength tests and pocket penetrometer tests in the clay layers encountered in the investigation, with samples of these soils being obtained for subsequent laboratory testing.

The logs of the boreholes are included in Appendix A with their locations shown in Drawing 1, attached.

## **5 SITE CONDITIONS**

### **5.1 Site Description**

The site is located within the lower-third zone of a northwesterly facing hillslope and is currently developed with a residence and driveway within the southern portion of the site.

The ground surface surrounding the dwelling generally has a gentle fall towards the northwest. On the northwestern side of the dwelling, the ground surface has a moderate fall of approximately 12° to 14° towards the northwest before becoming somewhat gentle at about 4° to 6° within the middle portion of the site and flattening to 1° near the northern boundary. Vegetation across the site comprised low grass with shrubs and scattered trees along the north and western boundaries and downslope of the existing residence.



**Plate 1: View of the site and the existing dwelling from the northern boundary looking towards the southwest, 15/09/2025.**



**Plate 2: View of the site looking to the northwest, 15/09/2025.**

The slopes within and surrounding the site are typically smooth convex slopes, with no obvious signs of recent landslide activity. The existing dwelling and adjacent roads are in good condition, showing no obvious signs of landslide damage.

## 5.2 Satellite Imagery

A review of historical satellite images covering the site was conducted using Google Earth. Historical images from 2004 to 2023 were available for review. The review of the photos was to primarily look for any recent spring and landslide activities, in addition to

gaining a general understanding of the recent history of the site. There was no obvious distinct landslide or spring activity in the immediate vicinity of the site during the period from 2008 to 2023.

### 5.3 Subsurface Conditions

The investigation indicated that the subsurface conditions are relatively uniform across the site. The boreholes encountered sandy silt topsoil to depths of 0.2m, overlying gravelly to sandy silt to depths of 0.3m, underlain by silty clay to the investigated depths of 5.3m to 6.3m.

Borehole BH1 encountered groundwater seepage at depth of 4.3m, immediately after drilling.

Full details of soil conditions encountered are presented on the borehole logs.

### 5.4 Laboratory Testing

The laboratory test results are summarised below:

**Table 1 - Summary of Laboratory Test Results**

| Sample       | Liquid Limit (%) | Plastic Limit (%) | Plasticity Index (%) | Linear Shrinkage (%) | Moisture Content (%) | Classification |
|--------------|------------------|-------------------|----------------------|----------------------|----------------------|----------------|
| BH1 6.0-6.3m | 68               | 33                | 35                   | 15.5                 | 31.2                 | CH             |
| BH2 5.0-5.3m | 82               | 32                | 50                   | 18                   | 36.5                 | CH             |

An assessment of the plasticity characteristics of the materials encountered indicates that the clay soils at this site possess a high to very high shrink/swell potential.

Published correlations between Plasticity Index and angle of internal friction indicated that the laboratory tested high plasticity silty clay soils would have a peak strength angle of internal friction value of approximately 22° and a residual value of about 8°.

## 6 GEOLOGICAL MODEL

From a review of available reports, geological maps and information collected during the investigation, a general geological model of the site has been inferred. Generally, the site is underlain by Cretaceous - Quaternary period sediments.

Groundwater seepages were encountered during the investigation within BH1 at depth of 4.3m.

## 7 LANDSLIDE RISK ASSESSMENT

It is deemed that for landslides or slumping to occur within the existing Cretaceous - Quaternary period sediments, the soils would need to become saturated or over-steepened by unretained earthworks.

Saturation would require extreme weather events greater and more frequent than those recorded in modern history or continuous water flow (such as leaking pipes) over an extended period.

Based on the geological and geomorphological settings of the site, the following possible landslide scenarios affecting the site are identified:

- Reactivation of the possible landslide ID 4759 affecting the proposed development; and
- Shallow/small-scale landslide occurs within the Cretaceous - Quaternary period sediments affecting the proposed development.

The qualitative likelihood, consequence and risk terms used in this report for risk to property are given in Appendix B. The risk terms are defined by a matrix that brings together different combinations of likelihood and consequence. Risk matrices help to communicate the results of risk assessment, rank risks, set priorities and develop transparent approaches to decision making. The notes attached to the tables and terms and the comments on response to risk in Appendix B are intended to help explain the risk assessment and management process.

In light of the findings of this investigation (topography, slope angles, stiff to very stiff soils and no observed recent or past landslide activity), the likelihood of large-scale failures occurring on the site affecting a proposed residential development at this site is considered BARELY CREDIBLE, whilst a small-scale failure occurring is considered UNLIKELY.

Accordingly, the likelihoods estimated for the possible landslide scenarios are summarised in Table 1 as follows.

**Table 1: Summary of Estimated Pre-existing Landslide Hazard**

| Possible Landslide Scenarios                                                                                                  | Indicative Annual Probability (pa) | Indicative Recurrence Interval (yrs) | Descriptor (AGS 2007c) |
|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------|------------------------|
| Reactivation of the possible landslide ID 4759 affecting the proposed subdivision development                                 | $10^{-5}$                          | 100,000                              | Rare                   |
| Shallow/small-scale landslide occurs within the Cretaceous - Quaternary period affecting the proposed subdivision development | $10^{-4}$                          | 10,000                               | Unlikely               |

## 7.1 Incremental Landslide Hazards

The alterations to the site as a result of the proposed development can generally be classified into two categories:

- Disturbance to the site due to the proposed development; and
- Introduction of additional water into the ground affecting the groundwater regime.

It is considered that the proposed development on the new subdivided lot would not adversely impact on the site and immediate surrounds nor significantly increase the pre-existing landslide hazard, provided that the development adheres to the principles of good hillside practice, including the retaining and/or safe battering of all cut excavations and fill areas as per the recommendations provided below.

The site is within a fully serviced suburb and as such, no additional water will be introduced into the ground at the site.

## 7.2 Landslide Consequences

The proposed development is the element at risk for this assessment. The landslide consequences for different scenarios are summarised in Table 2 as follows.

**Table 2: Summary of Consequences for Different Landslide Scenarios**

| Possible Landslide Scenarios                                                                                                  | Assessed Landslide Consequences                                                                              | Descriptor (AGS 2007c) |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------|
| Reactivation of the possible landslide ID 4759 affecting the proposed subdivision development                                 | The landslide may significantly displace the footing system of the proposed development causing major damage | Major                  |
| Shallow/small-scale landslide occurs within the Cretaceous - Quaternary period affecting the proposed subdivision development | The landslide may displace the footing system of the proposed development causing minor to medium damage     | Medium                 |

## 7.3 Landslide Risk to Property

Based on the outcomes of the landslide hazard and landslide consequence assessments detailed above, the assessed landslide risks to property are summarised in Table 3 as follows.

**Table 3: Summary of Assessed Landslide Risks to Property (AGS 2007c)**

| Possible Landslide Scenarios                                                                                                  | Assessed Landslide Hazards | Assessed Landslide Consequences | Qualitative Landslide Risk to Property |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|----------------------------------------|
| Reactivation of the possible landslide ID 4759 affecting the proposed subdivision development                                 | Rare                       | Major                           | <b>Low</b>                             |
| Shallow/small-scale landslide occurs within the Cretaceous - Quaternary period affecting the proposed subdivision development | Unlikely                   | Medium                          | <b>Low</b>                             |

The **acceptable** qualitative risk to property criteria suggested by AGS is **LOW**, given that the element at risk is a proposed low-rise residential development.

## 7.4 Landslide Risk to Life

The person most at risk is considered to be someone living in the proposed development. The landslide risk to life for the identified person most at risk is calculated in Table 4 as follows.

**Table 4: Landslide Risk to Life for Person Most at Risk**

| Possible Landslide Scenarios                                                                                                  | Adopted Annual Landslide Probability , P(H) | Spatial Probability of Landslide Impacting Buildings at Risk, P(S:H)   | Temporal Spatial Probability of Person Most at Risk at Buildings at Risk, P(T:S) | Vulnerability of Person Most at Risk, V(D:T)                                                                                 | Risk to Life, R(LoL)   |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Reactivation of the possible landslide ID 4759 affecting the proposed subdivision development                                 | 10 <sup>-5</sup>                            | 1.0 (Spatial Probability has been considered in the landslide hazards) | 0.67 (16hrs/day)                                                                 | 0.5 (Building suffers major damage but is unlikely to collapse; may cause injury but death is unlikely)                      | 3.3 x 10 <sup>-6</sup> |
| Shallow/small-scale landslide occurs within the Cretaceous - Quaternary period affecting the proposed subdivision development | 10 <sup>-4</sup>                            |                                                                        |                                                                                  | 0.05 (Building suffers minor to medium damage but is very unlikely to collapse; may cause injury but death is very unlikely) | 3.3 x 10 <sup>-6</sup> |
| Total: 6.6 x 10 <sup>-6</sup>                                                                                                 |                                             |                                                                        |                                                                                  |                                                                                                                              |                        |

The tolerable risk-to-life criteria for the person most at risk suggested by AGS is  $10^{-5}$ , given that the proposed subdivision development is a new development located on an existing slope. Acceptable risks are usually considered to be one order of magnitude lower than the tolerable risks, which in this case is  $10^{-6}$ .

Therefore, subject to compliance with the recommendations within Section 8 of this report, the landslide risks to life are assessed as **acceptable** for the identified person most at risk.

## 8 DISCUSSION AND RECOMMENDATIONS

*The outcomes of the assessments for landslide risk to property and landslide risk to life above, only apply if the principles of good hillside practice and the recommendations provided herein are adhered to.*

An information sheet entitled "Some Guidelines for Hillside Construction" adapted from the Journal of the Australian Geomechanics Society, volume 42, Number 1, dated March 2007, is presented in Appendix C.

Therefore, provided the proposed development on the new subdivided lot is in accordance with the recommendations within our report, we consider that a tolerable level of risk can be achieved in accordance with Section C15.6.1 (Building and works within a landslip hazard area) and Section C15.7.1 (subdivision within a landslip hazard area) of the Landslide Hazard Code of the Tasmanian Planning Scheme – West Tamar with the following Performance Criteria:

- **C15.6.1 - P1.1** - Building and works within a landslip hazard area must minimise the likelihood of triggering a landslip event and achieve and maintain a tolerable risk from landslip: **An acceptable level of risk can be achieved for the proposed works;**
- **C15.6.1 - P1.2** - A landslip hazard report also demonstrates that the buildings and works do not cause or contribute to landslip on the site, on adjacent land or public infrastructure: **It is considered that the works would not adversely impact on the site and immediate surrounds, including land or public infrastructure, provided that the development adheres to the principles of good hillside practice and the recommendations provided below;**
- **C15.6.1 - P1.3** - If landslip reduction or protection measures are required beyond the boundary of the site the consent in writing of the owner of that land must be provided for that land to be managed in accordance with the specific hazard reduction or protection measures: **Will not be required as part of the development; and**
- **C15.7.1 - P1** - Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area must not create an opportunity for use or development that cannot achieve a tolerable risk from landslip: **an acceptable level of risk can be achieved for the proposed lot, provided the works of the site are in accordance with the recommendations below.**

An Engineering Certificate addressing the Landslide Code is provided in Appendix D.

## 8.1 Buildings

Due to the potential landslide risk, the site has been classified as **CLASS P (AS 2870)**; However, if footings founded uniformly on the silty clay soils, footings may be proportioned to a **CLASS H1**.

The proposed building should be founded as follows:

- Silty CLAY (CH) – high plasticity, dark brown/mottled orange, encountered 0.3m below the existing ground surface;
- **An allowable bearing pressure of 100kPa** is available for edge beams, strips, pads, bored piers or screw piles founded above;
- The footing system shall be designed by a suitably qualified engineer;

## 8.2 Cuts and Fills

- Unretained cuts and fills on the site should be minimised and should be limited to less than 1.5m in height for cuts and fills, or alternatively these should be retained;
- Unretained soil cuts and fills may be battered at slope angles no steeper than 1 vertical to 2.5 horizontal (1V:2.5H) for cuts and 1 vertical to 3 horizontal (1V:3H) for fill;
- All retaining walls greater than 1m in height shall be designed by a suitably qualified structural engineer;
- Adequate subsurface and surface drainage should be provided behind all retaining walls; and
- Excavations for the construction of retaining walls may result in a temporary reduction in the stability of the adjacent area particularly during wet weather until the wall is complete. This increased risk can be managed or reduced by appropriate construction planning, using temporary support, staged excavation and control of drainage.

## 8.3 Drainage

- Collected stormwater drainage should be piped to the Council stormwater or street drainage system;
- No uncontrolled discharge of collected surface water onto the ground surface or through absorption trenches is permitted on the site; and
- Should groundwater seepages be encountered in the site or footing excavation, subsoil drains shall be installed discharging to the stormwater system.

## 9 PLUMBING

Classification for foundations was P Class, due to the Director's Determination – Landslip Hazard Areas. The encountered soil was stiff to very stiff and provided there is no loading around the plumbing pipework, the plumbing can be installed proportioned to **Class H1** for soil reactivity purposes.

If during plumbing trench excavations, soft or loose ground conditions are encountered, it is recommended the plumbing trenches be excavated to stiff or medium dense ground and backfilled with granular material to the invert level of the pipework.

## 10 WIND CLASSIFICATION

After allowing due consideration of the region, terrain, shielding and topography, the site has been classified as follows:

### WIND CLASSIFICATION N2 (AS 4055:2021)

| REGION | TERRAIN CATEGORY | SHIELDING | TOPOGRAPHY |
|--------|------------------|-----------|------------|
| A      | TC2              | PS        | T0         |

### References:

Australian Geomechanics Society. (2007). Practice note guidelines for landslide risk management. *Australian Geomechanics Journal*, 42(1), 115-158.

Department of Justice. (2021). *Director's Determination - Landslip Hazard Areas*. Consumer, Building and Occupational Services.

Standards Australia Limited. (2011). *AS 2870: Residential Slabs and Footings Construction*. Sydney: SAI Global Limited.

Standards Australia Limited. (2017). *AS 1726: Geotechnical Site Investigation*. Sydney: SAI Global Limited.

Standards Australia Limited. (2021). *AS 4055: Wind Loads for Housing*. Sydney: SAI Global Limited.

AS 4678 – 2002 Earth-retaining structures

Land Information System Tasmania (LIST).  
<https://maps.thelist.tas.gov.au/listmap/app/list/map>

Mineral Resources Tasmania (2013) – Tasmanian Information on Geoscience and Exploration Resources (TIGER) System.

<http://www.mrt.tas.gov.au/portal/database-searches>

ELVIS - Elevation and Depth - Foundation Spatial Data <http://elevation.fsdf.org.au/>

### Attachments:

Limitations of report

Drawing 1: Site Plan

Drawing 2: Landslide Inventory

Drawing 3: Geomorphology

Drawing 4: Slide Susceptibility

## Landslide Risk Assessment and Site Classification

Appendix A – Borehole Logs & Explanation Sheets

Appendix B – Qualitative Terminology for Use in Assessing Risk to Property

Appendix C – AGS Some Guidelines for Hillside Construction

Appendix D – Certificate Forms

## **Geotechnical Consultants - Limitations of report**

These notes have been prepared to assist in the interpretation and understanding of the limitations of this report.

### **Project specific criteria**

The report has been developed on the basis of unique project specific requirements as understood by Geoton and applies only to the site investigated. Project criteria are typically identified in the Client brief and the associated proposal prepared by Geoton and may include risk factors arising from limitations on scope imposed by the Client. The report should not be used without further consultation if significant changes to the project occur. No responsibility for problems that might occur due to changed factors will be accepted without consultation.

### **Subsurface variations with time**

Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. In the event of significant delays in the commencement of a project, further advice should be sought.

### **Interpretation of factual data**

Site assessment identifies actual subsurface conditions only at those points where samples are taken and at the time they are taken. All available data is interpreted by professionals to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, as it is virtually impossible to provide a definitive subsurface profile which includes all the possible variabilities inherent in soil and rock masses.

### **Report Recommendations**

The report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete and therefore the report recommendations can only be regarded as preliminary. Where variations in conditions are encountered, further advice should be sought.

### **Specific purposes**

This report should not be applied to any project other than that originally specified at the time the report was issued.

### **Interpretation by others**

Geoton will not be responsible for interpretations of site data or the report findings by others involved in the design and construction process. Where any confusion exists, clarification should be sought from Geoton.

### **Report integrity**

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

### **Geoenvironmental issues**

This report does not cover issues of site contamination unless specifically required to do so by the client. In the absence of such a request, Geoton take no responsibility for such issues.



**Legend**

BH 1



Approximate Borehole Location

5°



Approximate Slope angle in Degrees



Approximate Change in Slope



Contour in Metres (LiDAR Derived)



Cadastral Parcels



Low Landslide Hazard Band (LIST)



Medium Hazard Band (LIST)

|                                                                                                                             |           |          |    |                                    |               |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|----------|----|------------------------------------|---------------|
| <div><div><div><div>G</div><div>E</div><div>O</div><div>T</div><div>O</div><div>N</div></div><div>Pty Ltd</div></div></div> |           |          |    | Client: ROSS AND JUNE MEZGER       |               |
|                                                                                                                             |           |          |    | Project: 20 TANNER DRIVE<br>LEGANA |               |
| Date                                                                                                                        | 6/10/2025 | Drawn    | BA | Title: SITE PLAN                   |               |
| Scale                                                                                                                       | As Shown  | Approved | TB |                                    |               |
| Original size                                                                                                               | A3        | Rev      |    | Project no: GL25548A               | Drawing no. 1 |



Approximate Scale (m)

50 0 50 100 150 200 m

MAP EXTRACT FROM - MRT TASMANIAN  
LANDSLIDE MAP SERIES : WINDERMERE -  
LANDSLIDE INVENTORY

## Landslide Features

### Landslide Features

Position Approximate



**Recent or active  
Landslide**



**Activity unknown**



**Possible landslide**



1061

Recent or active earth  
or debris flow.



1062

Recent or active rock  
or soil slide.



1063

Recent or active  
rock fall.



1064

Possible landslide,  
activity not specified.



1066

Earth or debris flow,  
activity unknown.



1067

Rock or soil slide,  
activity unknown.



1068

Rock fall, activity unknown.

**GEO TON** Pty Ltd

client: **ROSS AND JUNE MEZGER**

project: **20 TANNER DRIVE  
LEGANA**

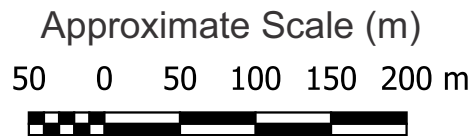
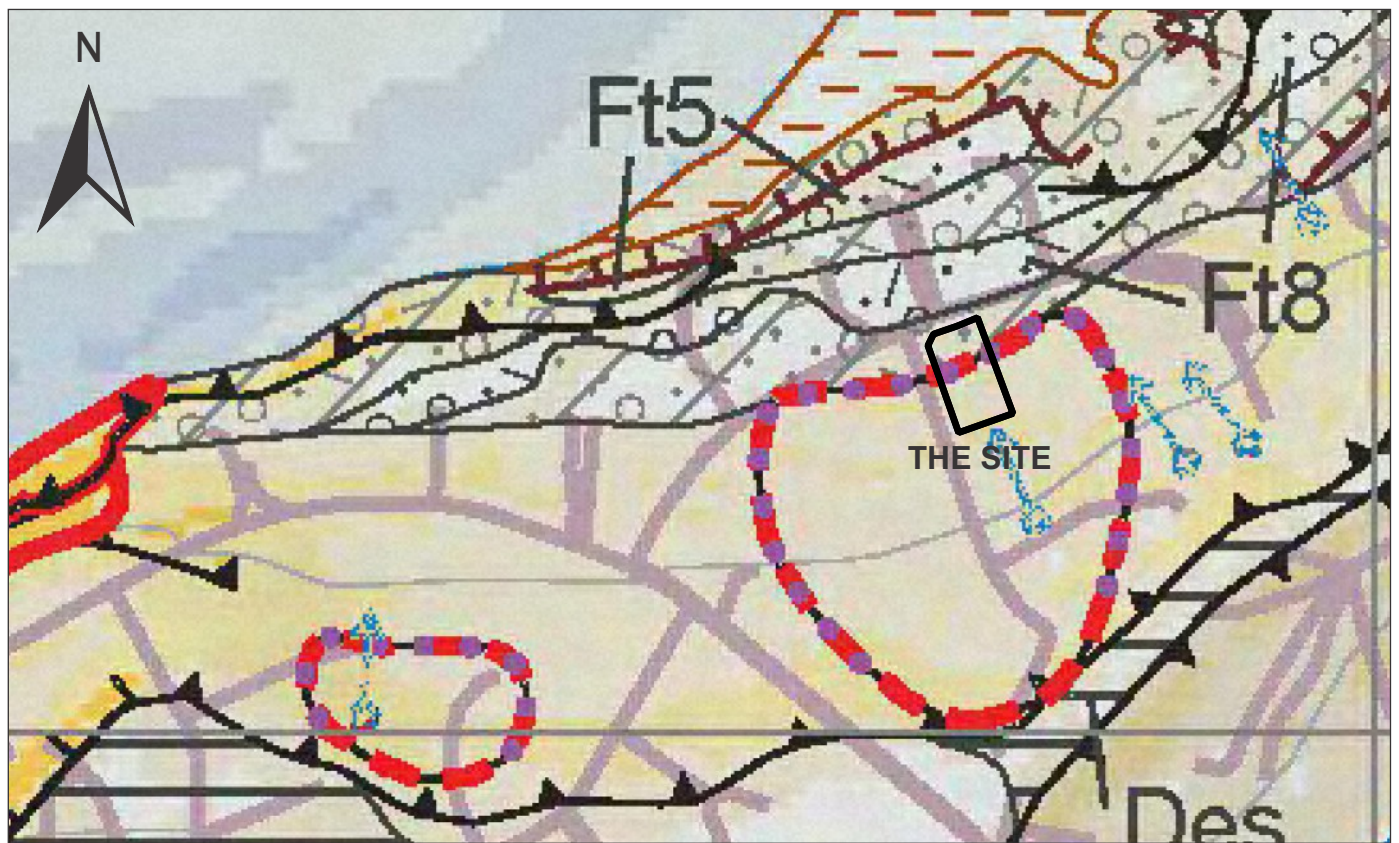
date: **6/10/2025** drawn: **BA**

scale: **As Shown** approved: **TB**

original size: **A4** rev:

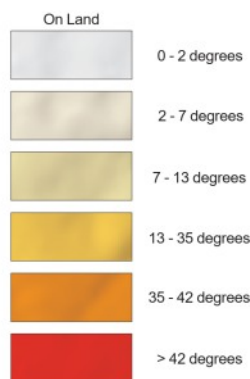
title: **LANDSLIDE INVENTORY SHEET**

project no: **GL25548A** Drawing no. **2**

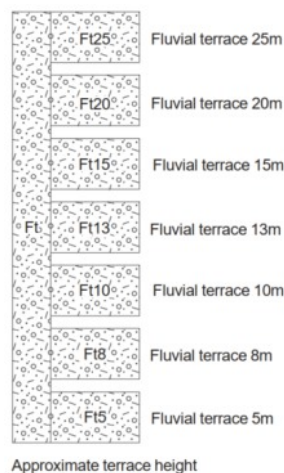


MAP EXTRACT FROM - MRT TASMANIAN  
LANDSLIDE MAP SERIES : WINDERMERE -  
GEOMORPHOLOGY

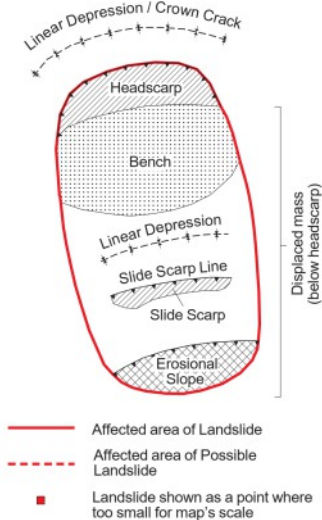
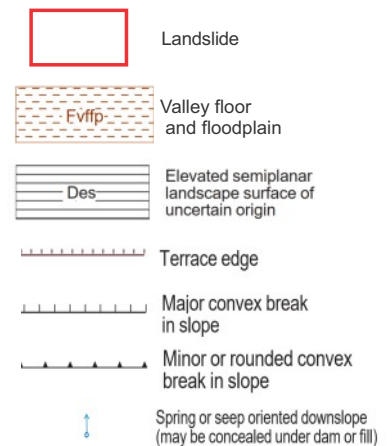
### Slope Categories



### Hill Country Units



### Selected Geomorphic Components



**GEO TON** Pty Ltd

client: ROSS AND JUNE MEZGER

project: 20 TANNER DRIVE  
LEGANA

date: 6/10/2025

drawn

BA

scale: As Shown

approved

TB

title: GEOMORPHOLOGY

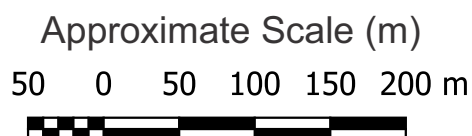
original  
size

A4

rev

project no: GL25548A

Drawing no. 3



MAP EXTRACT FROM - MRT TASMANIAN  
LANDSLIDE MAP SERIES : WINDERMERE -  
SLIDE SUSCEPTIBILITY

### Susceptibility Zones for First Time Failure

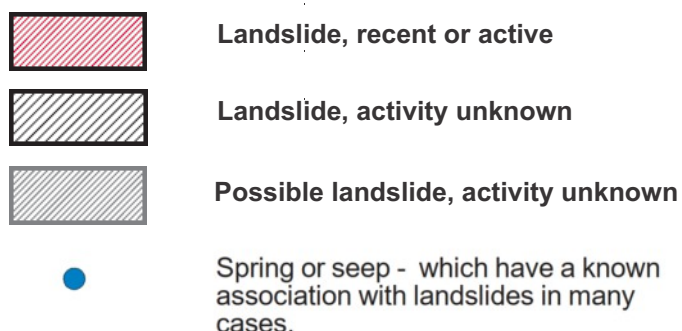


**Regression area:** An area up-slope of a source area that could fail following a deep-seated landslide movement (a.k.a retrogression or set-back area)

**Source area:** An area of hillside with the potential to form a slope failure, identified largely on the basis of slope angle and geology

**Runout area:** An area down-slope of a source area where the moving earth, debris or rock can potentially travel

### Susceptibility Zones for Landslide Reactivation



**GEOTON** Pty Ltd

client: ROSS AND JUNE MEZGER

project: 20 TANNER DRIVE  
LEGANA

date: 6/10/2025 drawn: BA

scale: As Shown approved: TB

original size: A4 rev:

title: SLIDE SUSEPTIBILITY

project no: GL25548A Drawing no. 4

# Appendix A

## **Borehole Logs**

Client : Ross and June Mezger  
Project : Landslide Risk Assessment  
Location : 20 Tanner Dr, Legana TAS 7277, Australia

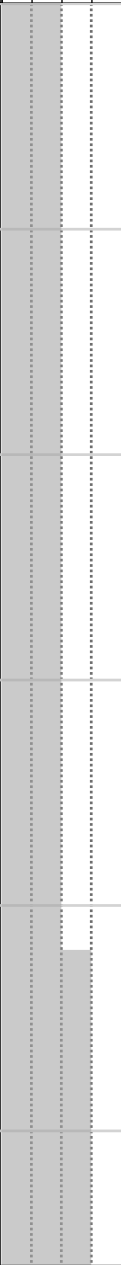
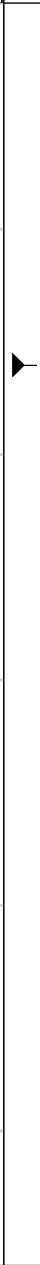
Easting : 504739.24  
Northing : 5423219.71  
Inclination : N/A  
Azimuth :  
Sheet : 1 OF 2  
Job No : GL25548A  
Logged : BA  
Logged Date : 15/09/2025  
Drill Rig : Honey Badger - 95mm

| Method | Drilling | Water | Samples | Testing |          | Depth (m) | Graphic Log | Classification Code | Material Description                                                                              | Moisture condition | Consistency density, index | Structure, Additional Observations |
|--------|----------|-------|---------|---------|----------|-----------|-------------|---------------------|---------------------------------------------------------------------------------------------------|--------------------|----------------------------|------------------------------------|
|        |          |       |         | V (kPa) | PP (kPa) |           |             |                     |                                                                                                   |                    |                            |                                    |
| ADT    |          |       |         |         |          |           |             | ML                  | TOPSOIL - Sandy SILT - low plasticity, dark grey, fine to medium grained sand, trace fine gravel, | M                  | F                          | W>PL                               |
|        |          |       |         |         |          | 0.3       |             | MH                  | Gravelly to Sandy SILT - high plasticity, dark grey, fine                                         |                    | St                         |                                    |
|        |          |       |         |         |          |           |             | CH                  | Silty CLAY - high plasticity, dark brown mottled orange,                                          | M                  | St                         |                                    |
|        |          |       |         | 90      |          | 0.5       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         |         |          | 0.8       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         | 88      |          | 1.0       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         |         |          | 1.3       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         |         |          | 1.5       |             | CH                  | becoming increase in moisture                                                                     | M                  | St                         |                                    |
|        |          |       | D (%)   | 55      |          | 1.8       |             | CH                  | becoming pale grey pale brown,                                                                    | M                  | St                         |                                    |
|        |          |       |         |         |          | 2.0       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         | 60      |          | 2.3       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         |         |          | 2.5       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         |         |          | 2.8       |             | CH                  | becoming pale grey pale brown mottled red,                                                        | M                  | VSt                        | hard drilling rotation             |
|        |          |       |         |         |          | 3.0       |             |                     |                                                                                                   |                    |                            |                                    |
|        |          |       |         | >140    |          | 3.3       |             |                     |                                                                                                   |                    |                            |                                    |

Client : Ross and June Mezger  
Project : Landslide Risk Assessment  
Location : 20 Tanner Dr, Legana TAS 7277, Australia

Easting : 504739.24  
Northing : 5423219.71  
Inclination : N/A  
Azimuth :

Sheet : 2 OF 2  
Job No : GL25548A  
Logged : BA  
Logged Date : 15/09/2025  
Drill Rig : Honey Badger - 95mm

| Method | Drilling                                                                           | Water                                                                              | Samples                                           | Testing |          | Depth (m) | Graphic Log                                                                        | Classification Code | Material Description                                               | Moisture condition | Consistency density, index | Structure, Additional Observations |
|--------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------|---------|----------|-----------|------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------|--------------------|----------------------------|------------------------------------|
|        |                                                                                    |                                                                                    |                                                   | V (kPa) | PP (kPa) |           |                                                                                    |                     |                                                                    |                    |                            |                                    |
| ADT    |  |  |                                                   |         |          | 3.8       |  | CH                  | becoming pale grey pale brown mottled red, (continued)             | M                  | VSt                        | W>PL                               |
|        |                                                                                    |                                                                                    |                                                   |         |          | 4.0       |                                                                                    |                     |                                                                    |                    |                            |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 4.3       |                                                                                    |                     |                                                                    |                    |                            |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 4.5       |                                                                                    | CH                  | becoming brown orange, with fine to medium grained sand            | M                  | St                         |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 4.8       |                                                                                    |                     |                                                                    |                    |                            |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 5.0       |                                                                                    |                     |                                                                    |                    |                            |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 5.3       |                                                                                    |                     |                                                                    |                    |                            |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 5.5       |                                                                                    |                     |                                                                    |                    |                            |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 5.8       |                                                                                    | CH                  | becoming pale brown orange, with fine gravel, decrease in moisture | M                  | VSt                        |                                    |
|        |                                                                                    |                                                                                    |                                                   |         |          | 6.0       |                                                                                    |                     |                                                                    |                    |                            |                                    |
|        |                                                                                    |                                                                                    | U50 LL=68<br>PL=33<br>PI=35<br>LS=15.5<br>MC=31.2 |         | 340      | 6.3       |                                                                                    |                     | BH1 Terminated at 6.3 m                                            |                    |                            |                                    |

Client : Ross and June Mezger  
Project : Landslide Risk Assessment  
Location : 20 Tanner Dr, Legana TAS 7277, Australia

Easting : 504739.24  
Northing : 5423219.71  
Inclination : N/A  
Azimuth :

Sheet : 1 OF 2  
Job No : GL25548A  
Logged : BA  
Logged Date : 15/09/2025  
Drill Rig : Honey Badger - 95mm

| Method | Drilling | Water | Samples | Testing |          | Depth (m) | Graphic Log | Classification Code | Material Description                                                           | Moisture condition | Consistency density, index | Structure, Additional Observations |
|--------|----------|-------|---------|---------|----------|-----------|-------------|---------------------|--------------------------------------------------------------------------------|--------------------|----------------------------|------------------------------------|
|        |          |       |         | V (kPa) | PP (kPa) |           |             |                     |                                                                                |                    |                            |                                    |
| ADT    |          |       |         |         |          |           |             | ML                  | TOPSOIL - Sandy SILT - low plasticity, dark grey, fine to medium grained sand, | M                  | F                          | W>PL                               |
|        |          |       |         |         |          | 0.3       |             | ML                  | Gravelly to Sandy SILT - low plasticity, dark grey dark brown,                 | M                  | St                         |                                    |
|        |          |       |         |         |          |           |             | CH                  | Silty CLAY - high plasticity, dark brown mottled grey, trace fine gravel,      | M                  | St                         |                                    |
|        |          |       |         | 100     |          | 0.5       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         |         |          | 0.8       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         |         |          |           |             | CH                  | becoming with fine to medium gravel,                                           | M                  | VSt                        |                                    |
|        |          |       |         | 120     |          | 1.0       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         |         |          | 1.3       |             | CH                  | becoming dark brown mottled grey mottled red,                                  | M                  | VSt                        |                                    |
|        |          |       |         | 118     |          | 1.5       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         |         |          | 1.8       |             | CH                  | becoming grey mottled red,                                                     | M                  | VSt                        |                                    |
|        |          |       |         |         |          |           |             | CH                  | becoming increase in moisture                                                  | M                  | VSt                        |                                    |
|        |          |       |         |         |          | 2.0       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         | 110     |          | 2.3       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         |         |          | 2.5       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         |         |          | 2.8       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         |         |          | 3.0       |             |                     |                                                                                |                    |                            |                                    |
|        |          |       |         | 110     |          | 3.3       |             |                     |                                                                                |                    |                            |                                    |

Client : Ross and June Mezger  
Project : Landslide Risk Assessment  
Location : 20 Tanner Dr, Legana TAS 7277, Australia

Easting : 504739.24  
Northing : 5423219.71  
Inclination : N/A  
Azimuth :

Sheet : 2 OF 2  
Job No : GL25548A  
Logged : BA  
Logged Date : 15/09/2025  
Drill Rig : Honey Badger - 95mm

| Method | Drilling | Water | Samples                                         | Testing |          | Depth (m) | Graphic Log | Classification Code | Material Description                                  | Moisture condition | Consistency density, index | Structure, Additional Observations |
|--------|----------|-------|-------------------------------------------------|---------|----------|-----------|-------------|---------------------|-------------------------------------------------------|--------------------|----------------------------|------------------------------------|
|        |          |       |                                                 | V (kPa) | PP (kPa) |           |             |                     |                                                       |                    |                            |                                    |
| ADT    |          |       |                                                 |         |          | 3.8       |             | CH                  | becoming increase in moisture (continued)             | M                  | VSt                        | W>PL < LL<br><br>easy drilling     |
|        |          |       |                                                 |         |          | 4.0       |             | CH                  | becoming brown mottled red,                           | M                  | VSt                        |                                    |
|        |          |       |                                                 |         |          | 4.3       |             | CH                  | becoming grey brown mottled red, increase in moisture | M                  | St-VSt                     |                                    |
|        |          |       |                                                 |         |          | 4.5       |             |                     |                                                       |                    |                            |                                    |
|        |          |       |                                                 |         |          | 4.8       |             | CH                  | becoming very stiff                                   | M                  | VSt                        |                                    |
|        |          |       | U50 LL=82<br>PL=32<br>PI=50<br>LS=18<br>MC=36.5 |         | 340      | 5.0       |             |                     |                                                       |                    |                            |                                    |
|        |          |       |                                                 |         |          | 5.3       |             |                     | BH2 Terminated at 5.3 m                               |                    |                            |                                    |

## Investigation Log Explanation Sheet

### METHOD – BOREHOLE

| TERM | Description      |
|------|------------------|
| AS   | Auger Screwing*  |
| AD   | Auger Drilling*  |
| RR   | Roller / Tricone |
| W    | Washbore         |
| CT   | Cable Tool       |
| HA   | Hand Auger       |
| DT   | Diatube          |
| B    | Blank Bit        |
| V    | V Bit            |
| T    | TC Bit           |

\* Bit shown by suffix e.g. ADT

### METHOD – EXCAVATION

| TERM | Description         |
|------|---------------------|
| N    | Natural exposure    |
| X    | Existing excavation |
| H    | Backhoe bucket      |
| B    | Bulldozer blade     |
| R    | Ripper              |
| E    | Excavator           |
| HT   | Hand Tools          |

### SUPPORT

| TERM | Description |
|------|-------------|
| M    | Mud         |
| N    | Nil         |
| C    | Casing      |
| S    | Shoring     |

### PENETRATION

| 1 | 2 | 3 | 4 |                                  |
|---|---|---|---|----------------------------------|
|   |   |   |   | No resistance ranging to Refusal |

### WATER

| Symbol | Description                 |
|--------|-----------------------------|
|        | Water inflow                |
|        | Water outflow               |
|        | 17/3/08 water on date shown |

### NOTES, SAMPLES, TESTS

| TERM            | Description                             |
|-----------------|-----------------------------------------|
| U <sub>50</sub> | Undisturbed sample 50 mm diameter       |
| U <sub>63</sub> | Undisturbed sample 63 mm diameter       |
| U <sub>81</sub> | Undisturbed sample 81 mm diameter       |
| D               | Disturbed sample                        |
| N               | Standard Penetration Test (SPT)         |
| N*              | SPT – sample recovered                  |
| N <sub>c</sub>  | SPT with solid cone                     |
| V               | Vane Shear                              |
| PP              | Pocket Penetrometer                     |
| P               | Pressumeter                             |
| B <sub>s</sub>  | Bulk sample                             |
| E               | Environmental Sample                    |
| R               | Refusal – Material cannot be penetrated |
| DCP             | Dynamic Cone Penetrometer (blows/100mm) |
| PL              | Plastic Limit                           |
| LL              | Liquid Limit                            |
| LS              | Linear Shrinkage                        |

### CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

Based on AS 1726:2017

### MOISTURE

| TERM | Description |
|------|-------------|
| D    | Dry         |
| M    | Moist       |
| W    | Wet         |

### CONSISTENCY/DENSITY INDEX

| TERM | Description  |
|------|--------------|
| VS   | very soft    |
| S    | soft         |
| F    | firm         |
| St   | stiff        |
| VSt  | very stiff   |
| H    | hard         |
| Fr   | friable      |
| VL   | very loose   |
| L    | loose        |
| MD   | medium dense |
| D    | dense        |
| VD   | Very dense   |

## Soil Description Explanation Sheet (1of 2)

### DEFINITION

In engineering terms, soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

### CLASSIFICATION SYMBOL AND SOIL NAME

Soils are described in accordance with the AS 1726: 2017 as shown in the table on Sheet 2.

### PARTICLE SIZE DEFINITIONS

| NAME     | SUBDIVISION | SIZE (mm)      |
|----------|-------------|----------------|
| BOULDERS |             | >200           |
| COBBLES  |             | 63 to 200      |
| GRAVEL   | Coarse      | 19 to 63       |
|          | Medium      | 6.7 to 19      |
|          | Fine        | 2.36 to 6.7    |
| SAND     | Coarse      | 0.6 to 2.36    |
|          | Medium      | 0.21 to 0.6    |
|          | Fine        | 0.075 to 0.21  |
| SILT     |             | 0.002 to 0.075 |
| CLAY     |             | <0.002         |

### MOISTURE CONDITION

#### Coarse Grained Soils

**Dry** Non-cohesive and free running.

**Moist** Soil feels cool, darkened in colour.  
Soil tends to stick together.

**Wet** As for moist but with free water forming when handling.

#### Fine Grained Soils

**Moist, dry of Plastic Limited –  $w < PL$**

Hard and friable or powdery.

**Moist, near Plastic Limit –  $w \approx PL$**

Soils can be moulded at a moisture content approximately equal to the plastic limit.

**Moist, wet of Plastic Limit –  $w > PL$**

Soils usually weakened and free water forms on hands when handling.

**Wet, near Liquid Limit -  $w \approx LL$**

**Wet, wet of Liquid Limit -  $w > LL$**

### CONSISTENCY TERMS FOR COHESIVE SOILS

| TERM       | UNDRAINED STRENGTH $s_u$ (kPa) | FIELD GUIDE                                                |
|------------|--------------------------------|------------------------------------------------------------|
| Very Soft  | $\leq 12$                      | Exudes between the fingers when squeezed in hand           |
| Soft       | 12 to 25                       | Can be moulded by light finger pressure                    |
| Firm       | 25 to 50                       | Can be moulded by strong finger pressure                   |
| Stiff      | 50 to 100                      | Cannot be moulded by fingers                               |
| Very Stiff | 100 to 200                     | Can be indented by thumb nail                              |
| Hard       | >200                           | Can be indented with difficulty by thumb nail              |
| Friable    | –                              | Can be easily crumbled or broken into small pieces by hand |

### RELATIVE DENSITY OF NON-COHESIVE SOILS

| TERM         | DENSITY INDEX (%) |
|--------------|-------------------|
| Very Loose   | $\leq 15$         |
| Loose        | 15 to 35          |
| Medium Dense | 35 to 65          |
| Dense        | 65 to 85          |
| Very Dense   | > 85              |

### DESCRIPTIVE TERMS FOR ACCESSORY SOIL COMPONENTS

| DESIGNATION OF COMPONENT | IN COARSE GRAINED SOILS |                             | IN FINE GRAINED SOILS | TERM   |
|--------------------------|-------------------------|-----------------------------|-----------------------|--------|
|                          | % Fines                 | % Accessory coarse fraction | % Sand/ gravel        |        |
| Minor                    | $\leq 5$                | $\leq 15$                   | $\leq 15$             | Trace  |
|                          | >5, $\leq 12$           | >15, $\leq 30$              | >15, $\leq 30$        | With   |
| Secondary                | >12                     | >30                         | >30                   | Prefix |

### SOIL STRUCTURE

| ZONING |                                                                   | CEMENTING           |                                                                      |
|--------|-------------------------------------------------------------------|---------------------|----------------------------------------------------------------------|
| Layer  | Continuous across the exposure or sample.                         | Weakly cemented     | Easily disaggregated by hand in air or water.                        |
| Lens   | Discontinuous layer of different material, with lenticular shape. | Moderately cemented | Effort is required to disaggregate the soil by hand in air or water. |
| Pocket | An irregular inclusion of different material.                     |                     |                                                                      |

### GEOLOGICAL ORIGIN

#### WEATHERED IN PLACE SOILS

|                              |                                                                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Extremely Weathered material | Material is weathered to such an extent that it has soil properties. Structure and/or fabric of parent rock material retained and visible. |
| Residual soil                | Structure and/or fabric of parent rock material not retained and visible.                                                                  |

#### TRANSPORTED SOILS

|                 |                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------|
| Aeolian soil    | Carried and deposited by wind.                                                                                       |
| Alluvial soil   | Deposited by streams and rivers.                                                                                     |
| Colluvial soil  | Soil and rock debris transported downslope by gravity.                                                               |
| Estuarine soil  | Deposited in coastal estuaries, and including sediments carried by inflowing rivers and streams, and tidal currents. |
| Fill            | Man-made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils.   |
| Lacustrine soil | Deposited in freshwater lakes.                                                                                       |
| Marine soil     | Deposited in a marine environment.                                                                                   |

## Soil Description Explanation Sheet (2 of 2)

### SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

| FIELD IDENTIFICATION PROCEDURES<br>(Excluding particles larger than 63 mm and basing fractions on estimated mass) |                                                                            |                                                                                     |                                                 |                                                                                     | GROUP SYMBOL | PRIMARY NAME  |      |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------|--------------|---------------|------|
| COARSE GRAINED SOIL<br>More than 65% of soil excluding oversize fraction is larger than 0.075 mm                  | (A 0.075 mm particle is about the smallest particle visible to naked eyes) | GRAVEL<br>More than half of coarse fraction is larger than 2.36 mm                  | CLEAN GRAVEL (Little or no fines)               | Wide range in grain size and substantial amounts of all intermediate particle sizes | GW           | GRAVEL        |      |
|                                                                                                                   |                                                                            |                                                                                     |                                                 | Predominantly one size or a range of sizes with some intermediate sizes missing     | GP           | GRAVEL        |      |
|                                                                                                                   |                                                                            |                                                                                     | GRAVEL WITH FINES (Appreciable amount of fines) | Non-plastic fines (for identification procedures see ML and MH below)               | GM           | Silty GRAVEL  |      |
|                                                                                                                   |                                                                            |                                                                                     |                                                 | Plastic fines (for identification procedures see CL, CI and CH below)               | GC           | Clayey GRAVEL |      |
|                                                                                                                   |                                                                            | SAND<br>More than half of coarse fraction is smaller than 2.36 mm                   | CLEAN SAND (Little or no fines)                 | Wide range in grain size and substantial amounts of all intermediate sizes          | SW           | SAND          |      |
|                                                                                                                   |                                                                            |                                                                                     |                                                 | Predominantly one size or a range of sizes with some intermediate sizes missing     | SP           | SAND          |      |
|                                                                                                                   |                                                                            |                                                                                     | SAND WITH FINES (Appreciable amount of fines)   | Non-plastic fines (for identification procedures see ML and MH below)               | SM           | Silty SAND    |      |
|                                                                                                                   |                                                                            |                                                                                     |                                                 | Plastic fines (for identification procedures see CL, CI and CH below)               | SC           | Clayey SAND   |      |
| FINE GRAINED SOIL<br>More than 35% of soil excluding oversize fraction is smaller than 0.075 mm                   |                                                                            | IDENTIFICATION PROCEDURES ON FRACTIONS <0.075 mm                                    |                                                 |                                                                                     |              |               |      |
|                                                                                                                   |                                                                            |                                                                                     | DRY STRENGTH                                    | DILATANCY                                                                           | TOUGHNESS    |               |      |
|                                                                                                                   |                                                                            | SILT & CLAY (low to medium plasticity, LL ≤ 50)                                     | None to Low                                     | Slow to Rapid                                                                       | Low          | ML            | SILT |
|                                                                                                                   |                                                                            |                                                                                     | Medium to High                                  | None to Slow                                                                        | Medium       | CL, CI        | CLAY |
|                                                                                                                   | Low to Medium                                                              |                                                                                     | Slow                                            | Low                                                                                 | OL           | ORGANIC SILT  |      |
|                                                                                                                   | SILT & CLAY (high plasticity, LL > 50)                                     | Low to Medium                                                                       | None to Slow                                    | Low to Medium                                                                       | MH           | SILT          |      |
|                                                                                                                   |                                                                            | High to Very High                                                                   | None                                            | High                                                                                | CH           | CLAY          |      |
|                                                                                                                   |                                                                            | Medium to High                                                                      | None to Very Slow                               | Low to Medium                                                                       | OH           | ORGANIC CLAY  |      |
|                                                                                                                   | Highly Organic Soil                                                        | Readily identified by colour, odour, spongy feel and frequently by fibrous texture. |                                                 |                                                                                     | Pt           | PEAT          |      |
|                                                                                                                   | • LL – Liquid Limit.                                                       |                                                                                     |                                                 |                                                                                     |              |               |      |

• LL – Liquid Limit.

### COMMON DEFECTS IN SOILS

| TERM            | DEFINITION                                                                                                                                                                                                                           | DIAGRAM | TERM          | DEFINITION                                                                                                                                                                                               | DIAGRAM |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| PARTING         | A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (e.g. bedding). May be open or closed.                                                                              |         | SOFTENED ZONE | A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere.                                                                                      |         |
| FISSURE         | A surface or crack across which the soil has little or no tensile strength, but which is not parallel or sub parallel to layering. May be open or closed. May include desiccation cracks.                                            |         | TUBE          | Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter. |         |
| SHEARED SEAM    | Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting fissures which divide the mass into lenticular or wedge-shaped blocks. |         | TUBE CAST     | An infilled tube. The infill may be uncemented or weakly cemented soil or have rock properties.                                                                                                          |         |
| SHEARED SURFACE | A near planar curved or undulating, smooth, polished or slickensided surface in clayey soil. The polished or slickensided surface indicates that movement (in many cases very little) has occurred along the defect.                 |         | INFILLED SEAM | Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open defects.                         |         |

# Appendix B

## **Qualitative Terminology for Use in Assessing Risk to Property**

## QUALITATIVE TERMINOLOGY FOR USE IN ASSESSING RISK TO PROPERTY

### QUALITATIVE MEASURES OF LIKELIHOOD

| Approximate Annual Probability |                    | Implied Indicative Landslide Recurrence Interval |               | Description                                                                             | Descriptor      | Level |
|--------------------------------|--------------------|--------------------------------------------------|---------------|-----------------------------------------------------------------------------------------|-----------------|-------|
| Indicative Value               | Notional Boundary  |                                                  |               |                                                                                         |                 |       |
| 10 <sup>-1</sup>               | 5x10 <sup>-2</sup> | 10 years                                         | 20 years      | The event is expected to occur over the design life.                                    | ALMOST CERTAIN  | A     |
| 10 <sup>-2</sup>               |                    | 100 years                                        |               | The event will probably occur under adverse conditions over the design life.            | LIKELY          | B     |
| 10 <sup>-3</sup>               | 5x10 <sup>-3</sup> | 1000 years                                       | 200 years     | The event could occur under adverse conditions over the design life.                    | POSSIBLE        | C     |
| 10 <sup>-4</sup>               | 5x10 <sup>-4</sup> | 10,000 years                                     | 2000 years    | The event might occur under very adverse circumstances over the design life.            | UNLIKELY        | D     |
| 10 <sup>-5</sup>               | 5x10 <sup>-5</sup> | 100,000 years                                    | 20,000 years  | The event is conceivable but only under exceptional circumstances over the design life. | RARE            | E     |
| 10 <sup>-6</sup>               | 5x10 <sup>-6</sup> | 1,000,000 years                                  | 200,000 years | The event is inconceivable or fanciful over the design life.                            | BARELY CREDIBLE | F     |

**Note:** (1) The table should be used from left to right; use Approximate Annual Probability or Description to assign Descriptor, not vice versa.

### QUALITATIVE MEASURES OF CONSEQUENCES TO PROPERTY

| Approximate Cost of Damage |                   | Description                                                                                                                                                                                     | Descriptor    | Level |
|----------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------|
| Indicative Value           | Notional Boundary |                                                                                                                                                                                                 |               |       |
| 200%                       | 100%              | Structure(s) completely destroyed and/or large scale damage requiring major engineering works for stabilisation. Could cause at least one adjacent property major consequence damage.           | CATASTROPHIC  | 1     |
| 60%                        |                   | Extensive damage to most of structure, and/or extending beyond site boundaries requiring significant stabilisation works. Could cause at least one adjacent property medium consequence damage. | MAJOR         | 2     |
| 20%                        | 40%               | Moderate damage to some of structure, and/or significant part of site requiring large stabilisation works. Could cause at least one adjacent property minor consequence damage.                 | MEDIUM        | 3     |
| 5%                         | 10%               | Limited damage to part of structure, and/or part of site requiring some reinstatement stabilisation works.                                                                                      | MINOR         | 4     |
| 0.5%                       | 1%                | Little damage. (Note for high probability event (Almost Certain), this category may be subdivided at a notional boundary of 0.1%. See Risk Matrix.)                                             | INSIGNIFICANT | 5     |

- Notes:**
- (2) The Approximate Cost of Damage is expressed as a percentage of market value, being the cost of the improved value of the unaffected property which includes the land plus the unaffected structures.
  - (3) The Approximate Cost is to be an estimate of the direct cost of the damage, such as the cost of reinstatement of the damaged portion of the property (land plus structures), stabilization works required to render the site to tolerable risk level for the landslide which has occurred and professional design fees, and consequential costs such as legal fees, temporary accommodation. It does not include additional stabilisation works to address other landslides which may affect the property.
  - (4) The table should be used from left to right; use Approximate Cost of Damage or Description to assign Descriptor, not vice versa

## QUALITATIVE TERMINOLOGY FOR USE IN ASSESSING RISK TO PROPERTY (CONTINUED)

### QUALITATIVE RISK ANALYSIS MATRIX – LEVEL OF RISK TO PROPERTY

| LIKELIHOOD          |                                                    | CONSEQUENCES TO PROPERTY (With Indicative Approximate Cost of Damage) |                 |                  |                |                             |
|---------------------|----------------------------------------------------|-----------------------------------------------------------------------|-----------------|------------------|----------------|-----------------------------|
|                     | Indicative Value of Approximate Annual Probability | 1: CATASTROPHIC<br>200%                                               | 2: MAJOR<br>60% | 3: MEDIUM<br>20% | 4: MINOR<br>5% | 5:<br>INSIGNIFICANT<br>0.5% |
| A – ALMOST CERTAIN  | $10^{-1}$                                          | VH                                                                    | VH              | VH               | H              | M or L (5)                  |
| B - LIKELY          | $10^{-2}$                                          | VH                                                                    | VH              | H                | M              | L                           |
| C - POSSIBLE        | $10^{-3}$                                          | VH                                                                    | H               | M                | M              | VL                          |
| D - UNLIKELY        | $10^{-4}$                                          | H                                                                     | M               | L                | L              | VL                          |
| E - RARE            | $10^{-5}$                                          | M                                                                     | L               | L                | VL             | VL                          |
| F - BARELY CREDIBLE | $10^{-6}$                                          | L                                                                     | VL              | VL               | VL             | VL                          |

- Notes:**
- (5) For Cell A5, may be subdivided such that a consequence of less than 0.1% is Low Risk.
  - (6) When considering a risk assessment it must be clearly stated whether it is for existing conditions or with risk control measures which may not be implemented at the current time.

### RISK LEVEL IMPLICATIONS

| Risk Level |                | Example Implications (7)                                                                                                                                                                                                                                                  |
|------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VH         | VERY HIGH RISK | Unacceptable without treatment. Extensive detailed investigation and research, planning and implementation of treatment options essential to reduce risk to Low; may be too expensive and not practical. Work likely to cost more than value of the property.             |
| H          | HIGH RISK      | Unacceptable without treatment. Detailed investigation, planning and implementation of treatment options required to reduce risk to Low. Work would cost a substantial sum in relation to the value of the property.                                                      |
| M          | MODERATE RISK  | May be tolerated in certain circumstances (subject to regulator's approval) but requires investigation, planning and implementation of treatment options to reduce the risk to Low. Treatment options to reduce to Low risk should be implemented as soon as practicable. |
| L          | LOW RISK       | Usually acceptable to regulators. Where treatment has been required to reduce the risk to this level, ongoing maintenance is required.                                                                                                                                    |
| VL         | VERY LOW RISK  | Acceptable. Manage by normal slope maintenance procedures.                                                                                                                                                                                                                |

- Note:**
- (7) The implications for a particular situation are to be determined by all parties to the risk assessment and may depend on the nature of the property at risk; these are only given as a general guide

# Appendix C

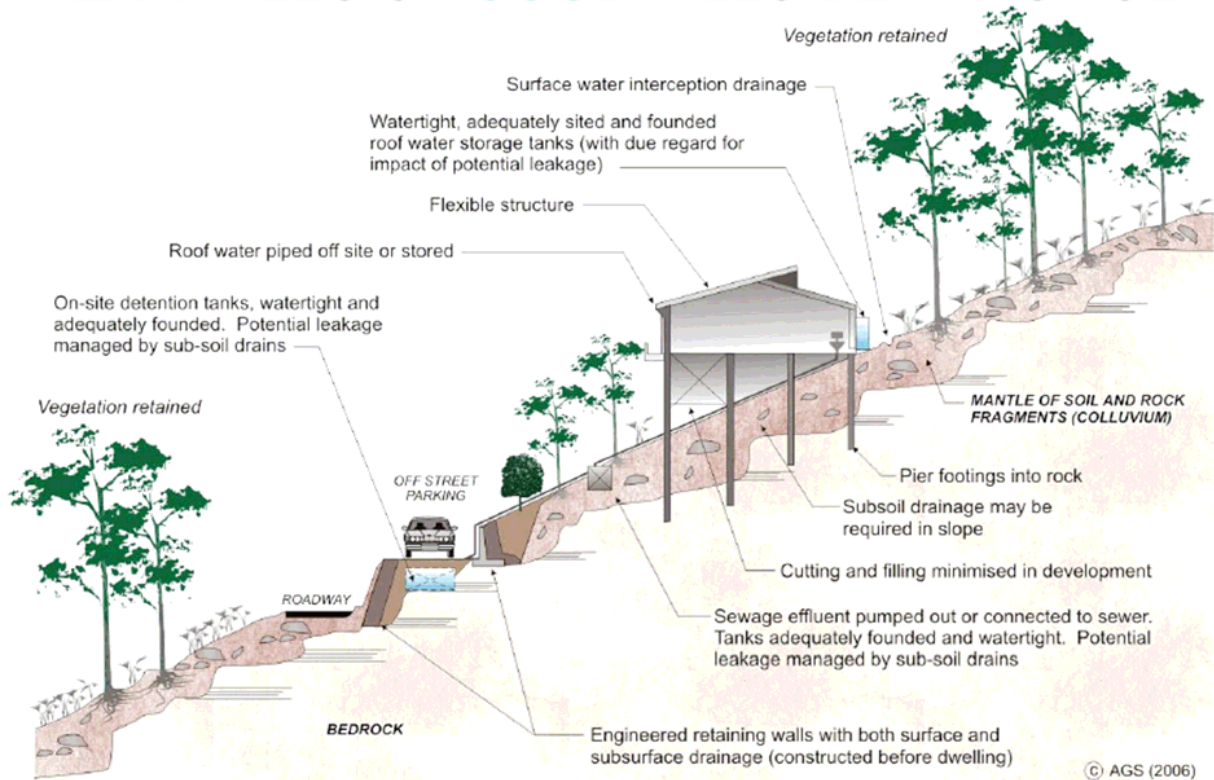
## **Some Guidelines for Hillside Construction**

# PRACTICE NOTE GUIDELINES FOR LANDSLIDE RISK MANAGEMENT 2007

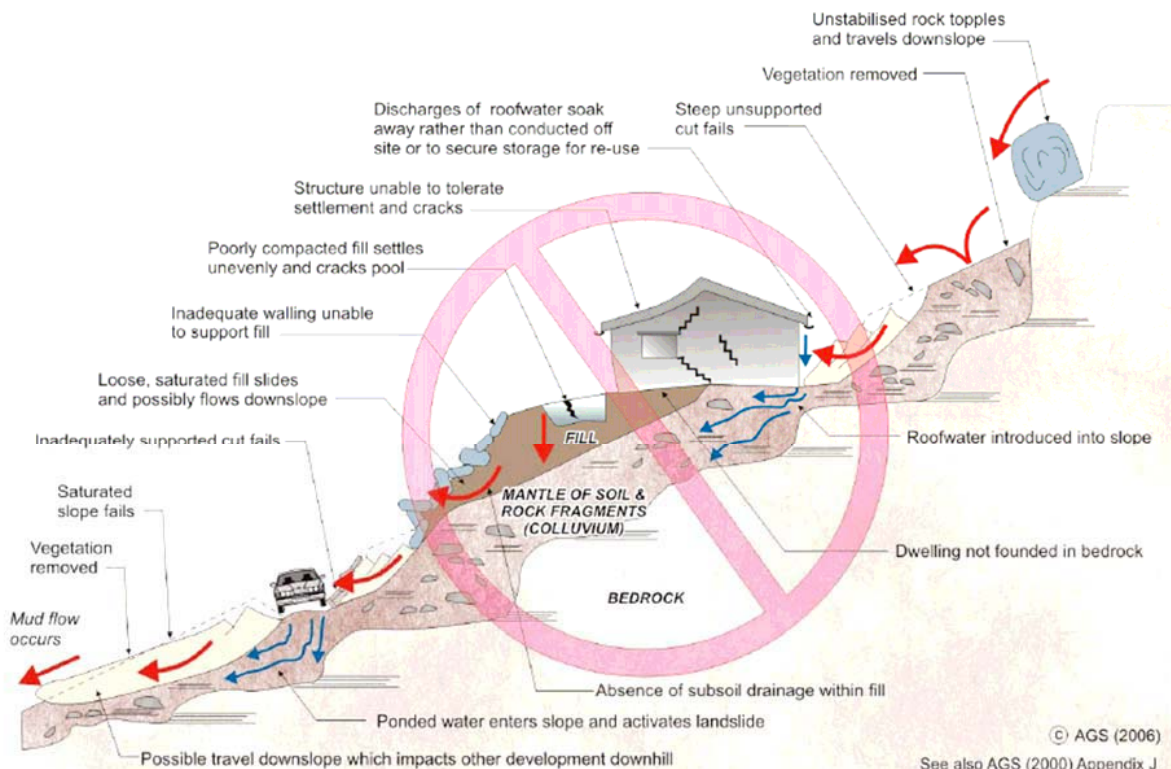
## APPENDIX - SOME GUIDELINES FOR HILLSIDE CONSTRUCTION

| <b>ADVICE</b>                                       |  | <b>GOOD ENGINEERING PRACTICE</b>                                                                                                                                                                                                                                                                                                           | <b>POOR ENGINEERING PRACTICE</b>                                                                                                                                                                                                                                                        |
|-----------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GEOTECHNICAL ASSESSMENT                             |  | Obtain advice from a qualified, experienced geotechnical practitioner at early stage of planning and before site works.                                                                                                                                                                                                                    | Prepare detailed plan and start site works before geotechnical advice.                                                                                                                                                                                                                  |
| <b>PLANNING</b>                                     |  |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |
| SITE PLANNING                                       |  | Having obtained geotechnical advice, plan the development with the risk arising from the identified hazards and consequences in mind.                                                                                                                                                                                                      | Plan development without regard for the Risk.                                                                                                                                                                                                                                           |
| <b>DESIGN AND CONSTRUCTION</b>                      |  |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |
| HOUSE DESIGN                                        |  | Use flexible structures which incorporate properly designed brickwork, timber or steel frames, timber or panel cladding.<br>Consider use of split levels.<br>Use decks for recreational areas where appropriate.                                                                                                                           | Floor plans which require extensive cutting and filling.<br>Movement intolerant structures.                                                                                                                                                                                             |
| SITE CLEARING                                       |  | Retain natural vegetation wherever practicable.                                                                                                                                                                                                                                                                                            | Indiscriminately clear the site.                                                                                                                                                                                                                                                        |
| EARTHWORKS                                          |  | Retain natural contours wherever possible.                                                                                                                                                                                                                                                                                                 | Indiscriminatory bulk earthworks.                                                                                                                                                                                                                                                       |
| CUTS                                                |  | Minimise depth.<br>Support with engineered retaining walls or batter to appropriate slope.<br>Provide drainage measures and erosion control.                                                                                                                                                                                               | Large scale cuts and benching.<br>Unsupported cuts.<br>Ignore drainage requirements                                                                                                                                                                                                     |
| FILLS                                               |  | Minimise height.<br>Strip vegetation and topsoil and key into natural slopes prior to filling.<br>Use clean fill materials and compact to engineering standards.<br>Batter to appropriate slope or support with engineered retaining wall.<br>Provide surface drainage and appropriate subsurface drainage.                                | Loose or poorly compacted fill, which if it fails, may flow a considerable distance including onto property below.<br>Block natural drainage lines.<br>Fill over existing vegetation and topsoil.<br>Include stumps, trees, vegetation, topsoil, boulders, building rubble etc in fill. |
| ROCK OUTCROPS & BOULDERS                            |  | Remove or stabilise boulders which may have unacceptable risk.<br>Support rock faces where necessary.                                                                                                                                                                                                                                      | Disturb or undercut detached blocks or boulders.                                                                                                                                                                                                                                        |
| RETAINING WALLS                                     |  | Found on rock where practicable.<br>Provide subsurface drainage within wall backfill and surface drainage on slope above.<br>Construct wall as soon as possible after cut/fill operation.                                                                                                                                                  | Construct a structurally inadequate wall such as sandstone flagging, brick or unreinforced blockwork.<br>Lack of subsurface drains and weepholes.                                                                                                                                       |
| FOOTINGS                                            |  | Found within rock where practicable.<br>Use rows of piers or strip footings oriented up and down slope.<br>Design for lateral creep pressures if necessary.<br>Backfill footing excavations to exclude ingress of surface water.                                                                                                           | Found on topsoil, loose fill, detached boulders or undercut cliffs.                                                                                                                                                                                                                     |
| SWIMMING POOLS                                      |  | Engineer designed.<br>Support on piers to rock where practicable.<br>Provide with under-drainage and gravity drain outlet where practicable.<br>Design for high soil pressures which may develop on uphill side whilst there may be little or no lateral support on downhill side.                                                         |                                                                                                                                                                                                                                                                                         |
| DRAINAGE                                            |  | Provide at tops of cut and fill slopes.<br>Discharge to street drainage or natural water courses.<br>Provide general falls to prevent blockage by siltation and incorporate silt traps.<br>Line to minimise infiltration and make flexible where possible.<br>Special structures to dissipate energy at changes of slope and/or direction. | Discharge at top of fills and cuts.<br>Allow water to pond on bench areas.                                                                                                                                                                                                              |
| SURFACE                                             |  |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |
| SUBSURFACE                                          |  | Provide filter around subsurface drain.<br>Provide drain behind retaining walls.<br>Use flexible pipelines with access for maintenance.<br>Prevent inflow of surface water.                                                                                                                                                                | Discharge roof runoff into absorption trenches.                                                                                                                                                                                                                                         |
| SEPTIC & SULLAGE                                    |  | Usually requires pump-out or mains sewer systems; absorption trenches may be possible in some areas if risk is acceptable.<br>Storage tanks should be water-tight and adequately founded.                                                                                                                                                  | Discharge sullage directly onto and into slopes.<br>Use absorption trenches without consideration of landslide risk.                                                                                                                                                                    |
| EROSION CONTROL & LANDSCAPING                       |  | Control erosion as this may lead to instability.<br>Revegetate cleared area.                                                                                                                                                                                                                                                               | Failure to observe earthworks and drainage recommendations when landscaping.                                                                                                                                                                                                            |
| <b>DRAWINGS AND SITE VISITS DURING CONSTRUCTION</b> |  |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |
| DRAWINGS                                            |  | Building Application drawings should be viewed by geotechnical consultant                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                         |
| SITE VISITS                                         |  | Site Visits by consultant may be appropriate during construction/                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                         |
| <b>INSPECTION AND MAINTENANCE BY OWNER</b>          |  |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |
| OWNER'S RESPONSIBILITY                              |  | Clean drainage systems; repair broken joints in drains and leaks in supply pipes.<br>Where structural distress is evident see advice.<br>If seepage observed, determine causes or seek advice on consequences.                                                                                                                             |                                                                                                                                                                                                                                                                                         |

## EXAMPLES OF **GOOD** HILLSIDE PRACTICE



## EXAMPLES OF **POOR** HILLSIDE PRACTICE



# Appendix D

## Certificate Forms

# CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To:  Owner /Agent  
 Address  
  Suburb/postcode

## Qualified person details:

Qualified person:   
Address:  Phone No:   
  Fax No:   
Licence No:  Email address:

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

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

## Details of work:

Address:  Lot No:   
  Certificate of title No:   
The assessable item related to this certificate:  (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:  (description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

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

building work, plumbing work or plumbing installation or demolition work: ☐

or

a building, temporary structure or plumbing installation: ☒

In issuing this certificate the following matters are relevant –

Documents:

Geoton Pty Ltd, Report Reference No. GL25548Ab,  
dated 06/10/2025

Relevant  
calculations:

Refer to report

References:

AS 2870 – 2011 Residential Slabs and Footings Construction  
AS 4055 – 2021 Wind Loads for Housing  
CSIRO Building Technical File 18

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

Site Classification in accordance with AS2870 - 2011  
Wind Loading in accordance with AS 4055 - 2021  
Findings and recommendations of report

*Scope and/or Limitations*

The classification applies to the site as investigated at the time and does not account for any future alteration to foundation conditions resulting from earthworks, drainage condition changes or site maintenance variations.

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

*Signed:*

Qualified person:



*Certificate No:*

GL25548Ab

*Date:*

06/10/2025

# PRACTICE NOTE GUIDELINES FOR LANDSLIDE RISK MANAGEMENT 2007

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------|
| <b>FORM</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>C</b> | <b>Geotechnical Declaration Subdivision Application</b>                                                                                                                                                                                                                                                                             |  | Page 1 of 2                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | Office Use Only                                                                                                                                                                                                                                                                                                                     |  | Regulator: West Tamar Council  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
| <p><b>To be submitted with an application for an engineering &lt;construction certificate&gt; for subdivision of land. This form must be attached to the application for the &lt;construction certificate&gt;.</b></p> <p>This form is essential to verify that the geotechnical report has been prepared in accordance with &lt;Regulator's geotechnical DCP&gt; and that the author of the geotechnical report is a geotechnical engineer or engineering geologist as defined by &lt;Regulator's geotechnical DCP&gt;. Alternatively, where a geotechnical report has been prepared by a professional person not recognised by the &lt;Regulator's geotechnical DCP&gt;, then this form may be used as technical verification of the geotechnical report if signed by a geotechnical engineer or engineering geologist as defined by &lt;Regulator's geotechnical DCP&gt;.</p> |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
| <b>Section 1 Related Application</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
| <i>Reference</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          | What is the Regulator's Development Application Number?                                                                                                                                                                                                                                                                             |  |                                |
| <i>DA Site Address</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | 20 Tanner Drive, Legana                                                                                                                                                                                                                                                                                                             |  |                                |
| <i>DA Applicant</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          | Ross and June Mezger                                                                                                                                                                                                                                                                                                                |  |                                |
| <b>Section 2 Geotechnical Report</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
| <i>Details</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          | Title: Landslide Risk Assessment                                                                                                                                                                                                                                                                                                    |  |                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | Author's Company/<br>Organisation Name: Geoton Pty Ltd                                                                                                                                                                                                                                                                              |  | Report Reference No: GL25548Ab |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          | Author: Tony Barriera/Bassam AL-Sinayyid                                                                                                                                                                                                                                                                                            |  | Dated: 06 / 10 / 2025          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
| <b>Section 3 Declaration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |                                                                                                                                                                                                                                                                                                                                     |  |                                |
| Declaration<br>(Tick all that apply)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          | <b>I am a geotechnical engineer or engineering geologist as defined by the &lt;Regulator's geotechnical DCP&gt; and on behalf of the company below:</b>                                                                                                                                                                             |  |                                |
| Yes      No<br><input checked="" type="checkbox"/> <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          | I prepared the geotechnical report referenced above in accordance with the AGS (2007c) as amended and Tasmanian Planning Scheme – West Tamar Council.                                                                                                                                                                               |  |                                |
| <input checked="" type="checkbox"/> <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | I am willing to technically verify that the geotechnical report referenced above has been prepared in accordance with the AGS (2007c) as amended and Tasmanian Planning Scheme – West Tamar Council.                                                                                                                                |  |                                |
| <input checked="" type="checkbox"/> <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | I have professional indemnity insurance in accordance with Tasmanian Planning Scheme of not less than \$5 million, being in force for the year in which the report is dated, with retroactive cover under this insurance policy extending back to the engineer's first submission to West Tamar Council.                            |  |                                |
| <input checked="" type="checkbox"/> <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          | I aware that the geotechnical report I have either prepared or am technically verifying (referenced above) is to be submitted in a support of a development application for the proposed development site (referenced above) and its findings will be relied upon by West Tamar Council in determining the development application. |  |                                |

## PRACTICE NOTE GUIDELINES FOR LANDSLIDE RISK MANAGEMENT 2007

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>FORM</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>C</b> | Page 2 of 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |
| <b>Geotechnical Declaration Subdivision Application</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |
| <b>Section 4 Checklist</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |
| <p>Geotechnical Requirements<br/>(Tick as appropriate, either Yes or No)</p> <p><b>Yes</b>      <b>No</b></p> <p><input type="checkbox"/>      N/A <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/>      <input type="checkbox"/></p> <p><input checked="" type="checkbox"/>      <input type="checkbox"/></p> <p><input checked="" type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      N/A <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/>      <input type="checkbox"/></p> <p><input type="checkbox"/>      N/A <input checked="" type="checkbox"/></p> <p><input type="checkbox"/>      N/A <input checked="" type="checkbox"/></p> <p><input type="checkbox"/>      N/A <input checked="" type="checkbox"/></p> <p><input type="checkbox"/>      N/A <input checked="" type="checkbox"/></p> |          | <p>The following checklist covers the minimum requirements to be addressed in a geotechnical report in accordance with C15.7.1 Subdivision within a landslip hazard area. This checklist is to accompany the report.</p> <p>The extent and stability of proposed embankments including those acting as retarding basins.</p> <p>Recommended Geotechnical testing requirements.</p> <p>Required level of geotechnical supervision for each part of the works as defined under AS3798 – Guidelines on Earthworks for Commercial and Residential Developments.</p> <p>Compaction specification for all fill within private subdivisions</p> <p>The level of risk to existing adjacent dwellings as a result of a construction contractor using vibratory rollers anywhere within the site the subject of these works. In the event that vibratory rollers could affect adjacent dwellings, 'high risk' areas shall be identified on a plan and the engineering plans shall be amended to indicate that no vibratory roller shall be used within that zone.</p> <p>The impact of the installation of services on overall site stability and recommendations on short term drainage methods, shoring requirements and other remedial measures that may be appropriate during installation.</p> <p>The preferred treatment of any areas of unacceptable risk within privately owned allotments.</p> <p>Requirement for subsurface drainage lines.</p> <p>Overall suitability of the engineering plans for the proposed development. (no engineering plans yet developed, recommendation that these be reviewed if and when available)</p> <p>Risk mitigation plan defined.- no mitigation remedial works required</p> |                         |
| <b>Section 5 Geotechnical Engineer or Engineering Geologist Details</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |
| Company/<br>Organisation<br>Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          | Geoton Pty Ltd                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |
| Name (Company<br>Representative)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          | Surname: Barriera                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mr /Mrs /Other: Mr      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          | Given Names: Antonio Jose                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          | Chartered Professional Status: CPEng, NER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Registration No: 471929 |
| Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | <br>Dated: 06 / 10 / 2025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |