



### NOTICE OF WRITTEN APPROVAL

Written Approval of Affected Parties in accordance with Section 95E of the Resource Management Act

**PART A – To be completed by Applicant**

Applicant/s Name: HARRY/ORLANDO MILLER

Address of proposed activity: 201 B KERIKERI RD.

Legal description: LOT 2 DP 578333 5.031m<sup>2</sup>

Description of the proposal (including why you need resource consent): IT IS PROPOSED TO ADJUST THE NORTHERN AND EASTERN BOUNDARY SETBACK FROM 10m TO 3m.

Details of the application are given in the attached documents & plans (list what documents & plans have been provided to the party being asked to provide written approval):

1. Proposed Boundary Setback plan.
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

- Notes to Applicant:**
1. Written approval must be obtained from all registered owners and occupiers.
  2. The **original copy** of this signed form and **signed plans and accompanying documents** must be supplied to the Far North District Council.
  3. The amount and type of information provided to the party from whom you seek written approval should be sufficient to give them a full understanding of your proposal, its effects and why resource consent is needed.

PART B – To be completed by Parties giving approval

**Notes to the party giving written approval:**

1. If the owner and the occupier of your property are different people then separate written approvals are required from each.
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4. Please sign and date all associated plans and documentation as referenced overleaf and return with this form.
5. If you have any concerns about giving your written approval or need help understanding this process, please feel free to contact the duty planner on 0800 920 029 or (09) 401 5200.

Full name/s of party giving approval:

Richard Miller

Address of affected property including legal description

201 Kerikeri Road, Kerikeri  
Lot 1 DP 57839.3

Contact Phone Number/s and email address

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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1. I/We have been provided with the details concerning the application submitted to Council and understand the proposal and aspects of non-compliance with the Operative District Plan.
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4. I/We understand that at any time before the notification decision is made on the application, I/we may give notice in writing to Council that this approval is withdrawn.

Signature

Date

7/4/2026

Signature

Date

Signature

Date

Signature

Date



<p><b>Richard Miller</b> 7/4/26 AM</p> <p>201B KERIKERI ROAD PROPOSED BOUNDARY SETBACK</p>		DRAWN:	
		CHECKED:	
		DATE:	07/04/2026
		PROJECT:	
		SHEET:	1 of 1
		SHEET:	1 of 1
		SCALE A3:	1:500

**To:** Far North District Council

**Applicant:** Harry Miller & Sarah White

**Site Address:** 201B Kerikeri Road, Kerikeri

**Legal Description:** Lot 2 DP 578333

**Zoning:** Coastal Living (Operative District Plan)

## 1. Introduction & Proposal Description

The applicant seeks to vary and delete specific conditions of Consent Notice 12649647.2 and seeking a land-use variation to provide for a minor dwelling on Lot 2. The proposal includes:

1. **Variation of Condition (iii):** Deletion of the fixed "Nominated Building Platform" (s221), allowing for flexible building placement subject to engineering certification.
2. **Deletion of Conditions (vii) & (xiii):** Removal of advisory notes regarding wastewater and electricity connections, which have now been established.
3. **Amendment of Condition (x):** Relaxation of the "No Pets" rule to "One Dog and No Cats" to align with DOC Buffer Zone guidelines.
4. **Setback Variation (Rule 10.6.5.1.1):** Reduction of the internal building setback from 10m to 3m along the Northern and Eastern boundaries.

## 2. Assessment against Operative District Plan Standards

### 2.1 Building Setbacks (Rule 10.6.5.1.1)

The Coastal Living zone requires a 10m setback for sites over 5,000m<sup>2</sup>. Lot 2 is 5,031m<sup>2</sup> (a 0.6% exceedance of the threshold).

- **Northern Boundary:** The proposal seeks a 3m setback. Potential effects on the northern neighbours are mitigated by the existing Right of Way (ROW) which provides a physical separation of approximately 6m. Furthermore, the steep southward slope ensures the building height remains low relative to the neighbours' horizon. In addition, the 'Nominated Building platform' (that is sort to be deleted) is actually setback 3m from the northern boundary not 10m therefore this 3m boundary setback was already previously approved by council and all neighbours to the north.

- **Eastern Boundary:** Written approval is being sought from the neighbour at 201A Kerikeri Road to disregard any potential amenity effects. The written approval and plan is attached.
- **Western & Southern Boundaries:** The 10m setbacks are strictly maintained to protect the Hongi Hika Recreation Reserve and the southern watercourse, consistent with ODP policies for coastal character.

### **2.2 Sunlight & Daylight (Rule 10.6.5.1.2)**

Technical modelling (LiDAR-derived) confirms that despite the 3m setback, the building remains entirely **within the 45-degree recession plane** (measured from 2m above ground level at the boundary). Due to the northern sun orientation and the southward slope, zero shading will be cast on the northern neighbours during the winter solstice.

### **2.3 Indigenous Biodiversity & Kiwi Protection (Condition x)**

The Operative District Plan seeks to protect indigenous flora and fauna. The applicant's proposal to allow "One Dog and No Cats" is based on the DOC Bay of Islands Kiwi Distribution Map, which classifies this area as a "Buffer Zone." This provides a balanced approach to pet ownership while ensuring the protection of Kiwi, meeting the intent of ODP Chapter 12 (Natural and Physical Resources).

### **2.4 Geotechnical Safety (Condition iii)**

The ODP requires building sites to be safe from natural hazards. Deleting the specific "box" of the Nominated Building Platform allows for flexibility while ensuring the safety is guaranteed by Condition (v), which remains on the title and mandates a Chartered Professional Engineer to certify the final location and foundation design.

## **3. Statutory Assessment: Section 104**

The proposal is consistent with the objectives and policies of the Coastal Living Zone (Chapter 10). It allows for residential development while ensuring that the visual and ecological qualities of the Kerikeri coastal environment are not compromised. The breach of the 10m setback is a response to a 0.6% area threshold exceedance (32m<sup>2</sup>). When balanced against the benefit allowing development on the safest/most accessible geotechnical land and maintaining the 10m DOC buffer, the adverse effects on the wider environment are considered less than minor.

#### **4. Notification Assessment**

- **Public Notification:** The breach of the setback is technical in nature (due to site area) and does not result in a significant change in built character. Public notification is not required.
- **Limited Notification:** With the written approval of the Eastern neighbour, there are no other persons considered affected under s95E of the RMA. The written approval from the eastern neighbour is attached.

#### **Supporting Documents:**

- Site plan showing proposed boundary change
- Written approval from eastern neighbour (201A)
- CCC for the dwelling on 201B showing established WW and electrical connections.



PROPERTIES NOT AFFECTED BY PROPOSAL

Fee Simple, 1/1, Lot 4 Deposited Plan 47848, 1,712 m2

Fee Simple, 1/1, Lot 3 Deposited Plan 47848, 1,394 m2

Fee Simple, 1/1, Lot 2 Deposited Plan 47848, 1,437 m2

Fee Simple, 1/1, Lot 1 Deposited Plan 47848, 1,513 m2

Fee Simple, 1/1, Lot 1 Deposited Plan 578333, 4,533 m2

Proposed 3m Boundary Setback

ROW

Fee Simple, 1/1, Lot 2 Deposited Plan 578333, 5,031 m2

10m Boundary Setback Maintained

IMAGE SCALE APPROXIMATE

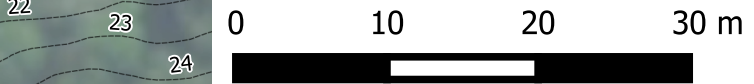


IMAGE COURTESY OF FAR NORTH CONSORTIUM

201B KERIKERI ROAD  
PROPOSED BOUNDARY SETBACK

DRAWN:	
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Full name/s of party giving approval:

Richard Miller

Address of affected property including legal description

201 Kerikeri Road, Kerikeri  
Lot 1 DP 57839.3

Contact Phone Number/s and email address

Daytime:

0272330602

email:

richard@stonestorelodge.co.nz

I am/we are the OWNER(S) / OCCUPIER(S) of the property (circle which is applicable)

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Signature

RM

Date

7/4/2026

Signature

Date

Signature

Date

Signature

Date



<p><b>Richard Miller</b> 7/4/26 AM</p> <p>201B KERIKERI ROAD PROPOSED BOUNDARY SETBACK</p>		DRAWN:	
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17 December 2024

Harry Orlando Miller  
201 Kerikeri Road  
Kerikeri 0230

**Building consent number:** CCC-2024-410/1  
**Property ID:** 3364356  
**Address:** 201B Kerikeri Road, Kerikeri 0230  
**Description:** New dwelling and retaining wall

Dear Sir / Madam

**Issue of Code Compliance Certificate (CCC)**

Congratulations on successfully completing your building project.

A Code Compliance Certificate (CCC) has now been issued for your building project.

This brings the consent process to its conclusion and your property files have been updated accordingly.

Thank you for choosing to build in the Far North.

Yours sincerely,



Sara Abraham  
Building Team  
**Delivery and Operations**

Emailed to: [harryomiller@outlook.com](mailto:harryomiller@outlook.com)

FORM 7  
**CODE COMPLIANCE CERTIFICATE**

Section 95, Building Act 2004

**Building Consent Number: CCC-2024-410/1**

**THE BUILDING**

Street Address of Building:

201B Kerikeri Road, Kerikeri 0230

Legal description of land where building is located:

Lot 2 DP 578333

Building Name:

Level/Unit Number:

Current, lawfully established, use:

Location of Building within site / block number:

Year first constructed:

**THE OWNER**

Name of Owner:

Harry Orlando Miller

Contact Person Name:

Harry Miller

Mailing Address:

201 Kerikeri Road

Kerikeri 0230

Street Address / Registered Office:

As Above

Phone Number:

Landline:

Mobile:

021 968 476

Daytime:

After Hours:

Facsimile Number:

Email Address:

[harryomiller@outlook.com](mailto:harryomiller@outlook.com)

Website:

First point of contact for communications with the building consent authority:

As above

**BUILDING WORK**

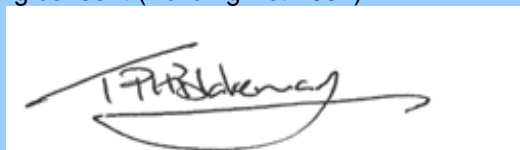
The following building work is authorised and issued by Far North District Council:

New dwelling and retaining wall

**CODE COMPLIANCE**

- The building consent authority named below is satisfied, on reasonable grounds that the building work complies with the building consent (Building Act 2004).

Signature:



Position:

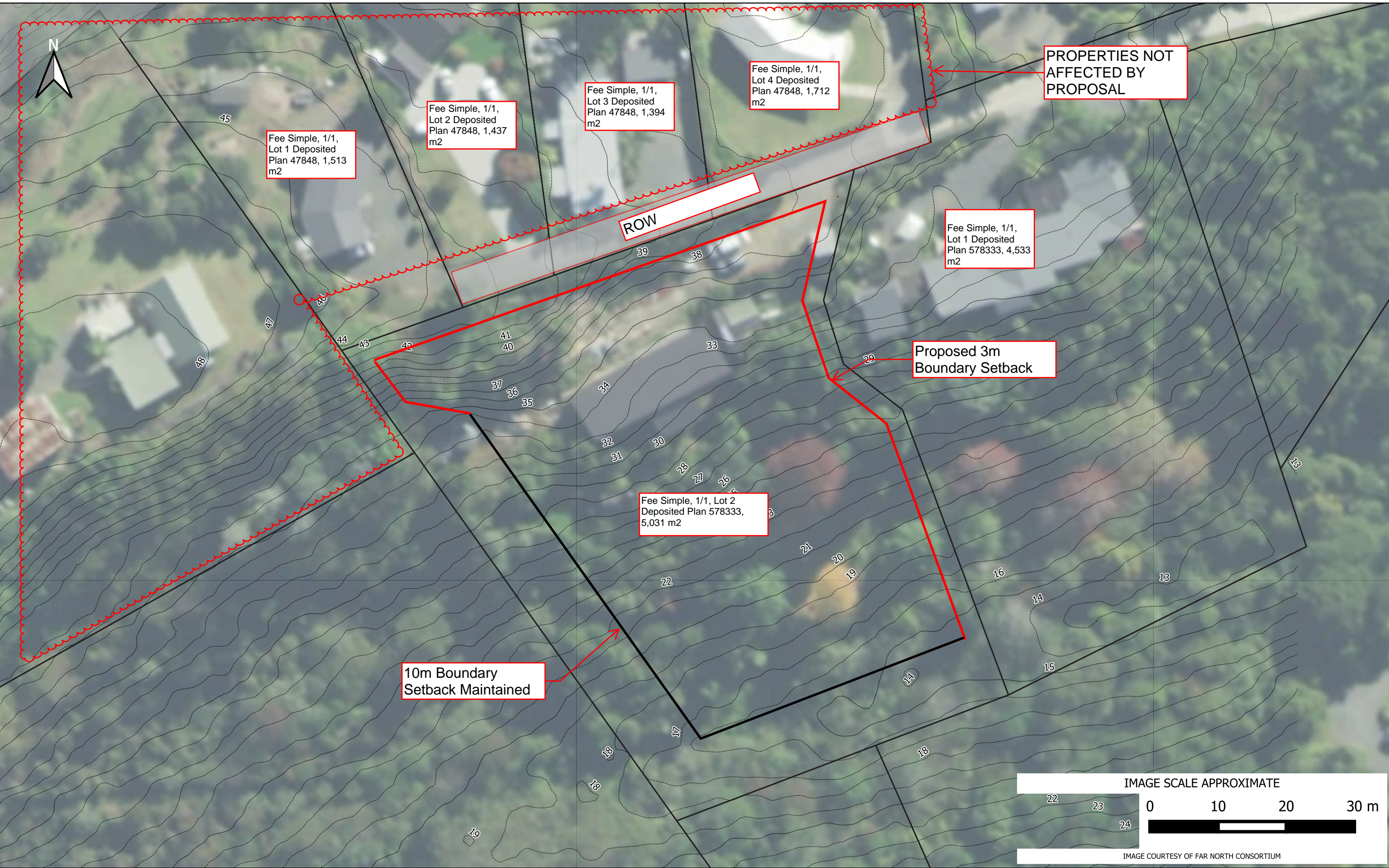
Trent Blakeman  
Group Manager – Delivery and  
Operations

On behalf of:

Far North District Council (Building Consent Authority)

Date:

19 December 2024



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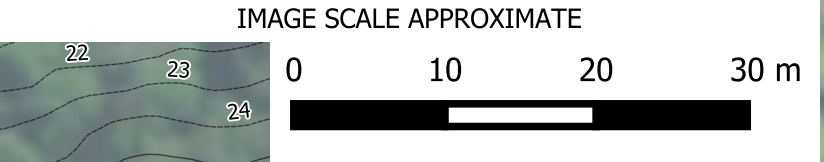
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10m Boundary Setback Maintained



201B KERIKERI ROAD  
PROPOSED BOUNDARY SETBACK

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FEASIBILITY GEOTECHNICAL REPORT

# Proposed Lot 2 being a subdivision of 201 Kerikeri Road, Kerikeri

*Prepared for*

Richard Miller




15/06/2021

## Report Information Summary

<b>Job no.</b>	J14599
<b>Report Author</b>	Callum Smith/Dan Simmonds
<b>Report Reviewer</b>	Ben Perry
<b>Version No.</b>	1
<b>Status</b>	Final
<b>Date</b>	15/06/2021

Version No.	Date	Description
1	15/06/2021	Final issued to client.

### Document Acceptance

Action	Name	Signed		Date
Author	Callum Smith/Dan Simmonds	 Graduate Engineer, BEng Tech	 Senior Geotechnical Engineer, MIEAust CPEng (Civil)	15/06/2021
Reviewer	Ben Perry	 Managing Director, CEngNZ CPEng		15/06/2021

### Limitations

This report has been prepared by Vision Consulting Engineers Limited (VISION) based on the scope of our engagement. It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. VISION does not accept any liability or responsibility in relation to the use of this report contrary to the above, or to any person other than the Client. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate, without independent verification, unless otherwise indicated. No liability or responsibility is accepted by VISION for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.

The ground conditions given in this report are based on visual methods and investigations at discrete locations. The nature and continuity of the subsurface conditions are inferred and it must be appreciated that actual conditions could vary from that described herein. We should be contacted immediately if variations are encountered for those assumed in this report. It is possible that further investigation or modification of recommendations is required.



Vision Consulting Engineers Ltd  
Level 1, 62 Kerikeri Road, Kerikeri 0230  
P: 09 401 6287 E: info@vce.co.nz

## Contents

Section	Page
<b>1</b>	<b>General.....1</b>
<b>2</b>	<b>Site Setting and Conditions .....1</b>
<b>3</b>	<b>Proposed Subdivision.....2</b>
3.1	Historic Aerial Photographs ..... 3
3.2	Geomorphology ..... 4
<b>4</b>	<b>Possible Building.....4</b>
<b>5</b>	<b>Geology.....4</b>
<b>6</b>	<b>Site Investigation .....5</b>
<b>7</b>	<b>Subsurface Conditions.....5</b>
7.1	Ground Conditions ..... 5
7.1.1	Fill..... 5
7.1.2	Topsoil..... 5
7.1.3	Buried Topsoil ..... 5
7.1.4	Kerikeri Volcanic Group ..... 5
7.2	Waipapa Group..... 6
7.2.1	Residual Soil ..... 6
7.2.2	Completely Weathered Rock ..... 6
7.2.3	Highly Weathered Rock ..... 6
7.3	Groundwater..... 6
7.4	Site Subsoil Category ..... 6
7.5	Soil Shrink-swell Potential..... 6
7.6	Possible Liquefaction Potential..... 6
<b>8</b>	<b>Preliminary Engineering Evaluation .....7</b>
8.1	Slope Stability ..... 7
8.2	Preliminary Slope Stability Analysis Results..... 8
<b>9</b>	<b>Preliminary Engineering Recommendations.....8</b>
9.1	Preliminary Slope Stability ..... 8
9.2	Earthworks ..... 9
9.3	Foundation Recommendations..... 9
9.4	Stormwater and Drainage Recommendations ..... 9
<b>10</b>	<b>Conclusion .....9</b>

## Appendices

- Appendix A Proposed Subdivision Scheme Plan
- Appendix B Geotechnical Testing Plan
- Appendix C Field Logs
- Appendix D Slope Stability Output

## Tables

- Table 1. Geotechnical Parameters for Slope Stability Analysis
- Table 2. Slope stability analysis results



## Figures

Figure 1. Property Location

Figure 2. Historic Aerial Image, 1953

Figure 3. Site Geomorphology



## 1 General

Vision Consulting Engineers Ltd (VISION) was engaged to undertake a ground investigation to support a Resource Consent application for the proposed subdivision of 201 Kerikeri Road, Kerikeri. It is proposed to subdivide the land to create 2 Lots.

The scope of this report is given in the agreed services proposal dated 10/12/2020 and comprises a geotechnical feasibility investigation, analysis and reporting to determine the ground conditions for a possible building site; slope stability analysis, provide feasibility recommendations regarding foundations, earthworks and slope stability.

This report is suitable to accompany an application for Resource Consent.

## 2 Site Setting and Conditions

The property is located at 201 Kerikeri Road, Kerikeri being Lot 6 DP56648 and covers an area of 9,566m<sup>2</sup>. It is bounded by residential lots to the north and south east, Hongi Hika Recreation Reserve to the south and west and a shared right of way to the north east. The approximate location of the property is presented below on Figure 1.

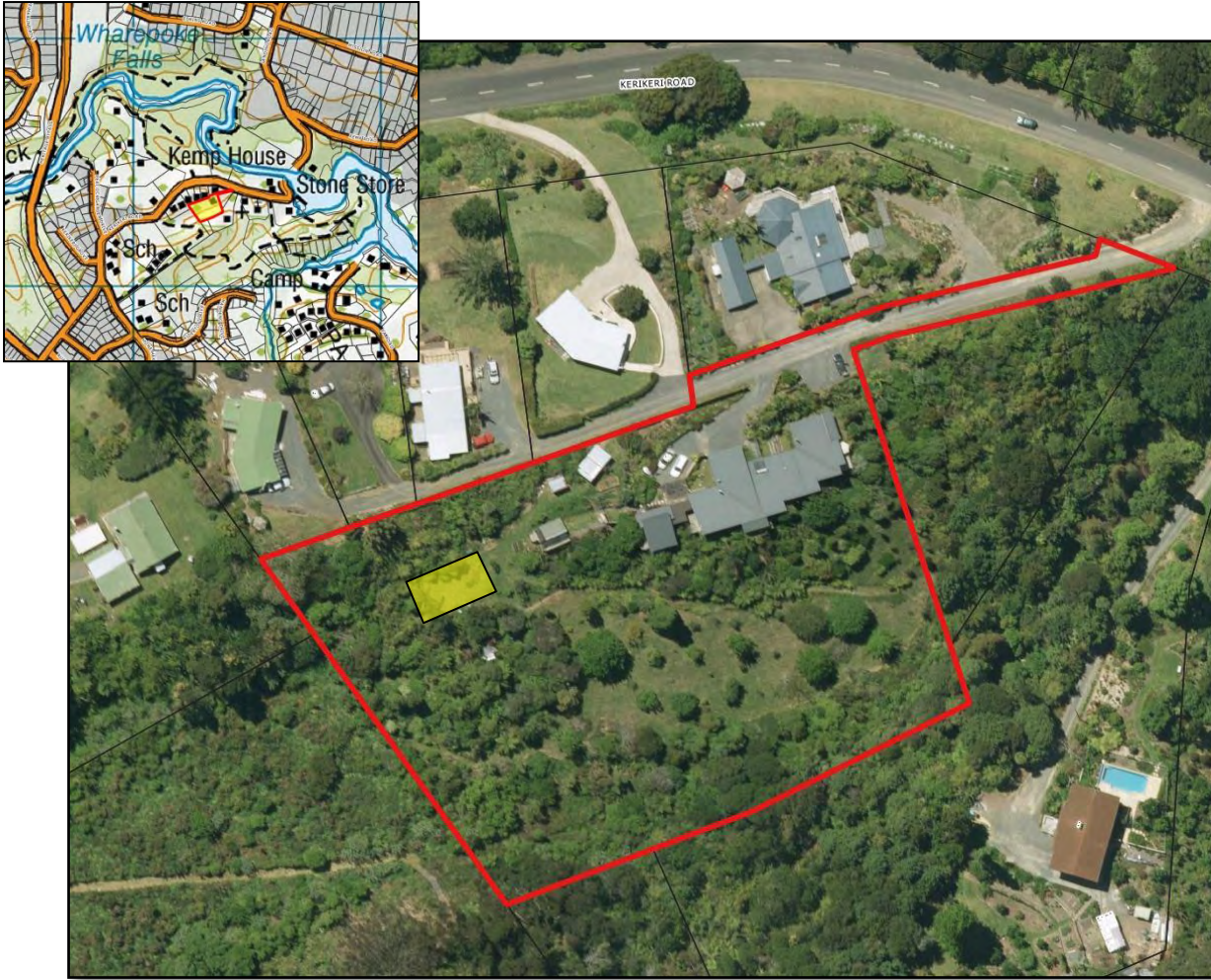
The property contains an existing dwelling, sheds, sleepouts, septic tank, water tank, metal parking area and concrete shared ROW from Kerikeri Road in the northern eastern portion of the site. The remainder of the site is generally overgrown with trees, scrub and grass an un-named water course present near the south-eastern property boundary.

The existing dwelling is accessed via shared concrete ROW from Kerikeri Road. An open drain is present along the northern side of ROW.

For the purpose of this report the 'site' is limited to the possible building area on proposed Lot 2 and the area appurtenant to the possible building area.

The possible building site ground profile varies but generally consists of a very steep slope to the north west of the site sloping at up to 41 degrees to the south east and gentle to steep slopes to the south of the site sloping between 3 to 30 degrees to the south and south east. There is a landscape timber retaining wall located to the south of the possible dwelling site, approximately 0.4m high. The site is generally covered in grass with one large boulder in the centre of the site. There are several fruit trees to the south east and two large palm trees in the south western corner of the site. The site is surrounded by dense bush on the western and southern boundaries. The very steep slope to the north west is covered by scrub and weeds with several small stand alone trees.





**Figure 1. Property Location**

*Property highlighted red, possible building site shown as yellow highlight, north at top, not to scale*

### 3 Proposed Subdivision

The Thomson Survey plan of the proposed subdivision, included in Appendix A, presents the proposed subdivision of 201 Kerikeri Road which involves subdividing the site into 2 lots, Lots 1 to 2. Proposed Lot 1 will contain the existing dwelling, concrete ROW and metal turnaround and parking area, lot 2 will contain the boat shed and a smaller shed. Both lots are anticipated to be used for residential purposes. The proposed lots are 4889m<sup>2</sup> (Lot 1) and 4677 m<sup>2</sup> (Lot 2) in size.



### 3.1 Historic Aerial Photographs

Historic aerial photographs from 1953 were reviewed as stereopairs. The review of the aerial photographs indicates that the western portion of the site and the land to the west has been affected by historic land instability.

An extract from the 1953 aerial photograph is provided below in Figure 2.



**Figure 2. Historic Aerial Image, 1953**

*Property highlighted red, north at top, not to scale, image from VISION archives*



## 3.2 Geomorphology

The property is located on the south-eastern slopes of a generally north-east to south-west trending ridgeline on which the RoW is approximately located. The property slopes very steeply to moderately to the south-east toward a gully located in the southern portion of the property.

The geomorphology of the area is shown in Figure 3 below using a digital elevation model derived from the 2018 Northland Regional Council (NRC) Light Detection and Ranging (LiDAR) dataset and 1m contours.

The property near the western boundary and the land to the west appears to have been affected by historic land instability. In addition the property is inferred to be located at the geological interface where the Kerikeri Volcanic Group overlies the Waipapa Group in the northern portion of the property, and the remainder of the site is underlain by the Waipapa Group.



**Figure 3. Site Geomorphology**

*Site boundary indicative only(bold red), contours are shown at 1m intervals with blue shading lower elevations and green shading higher elevations, north is up the page. DEM courtesy of NRC*

## 4 Possible Building

It is understood that the possible building concept has not been proposed at this stage. The client has identified a possible building area is shown on the geotechnical testing plan included in Appendix B.

## 5 Geology

The 1:250,000 geological map, Geology of the Whangarei Area (Edbrooke and Brook et al 2009) indicates that the property is underlain by the Waipapa Group comprising massive to thin bedded, lithic volcanoclastic metasediments and argillite, with tectonically enclosed basalt, chert and siliceous.

Landcare Research (Harmsworth, 1996) have mapped the site as being underlain by Kerikeri friable clay (KEb) with large boulders being soils of the rolling and hilly land, well to moderately well drained.



## 6 Site Investigation

The ground conditions were investigated on the 28th to 29th April 2021 and involved the drilling of three hand-augured boreholes (BH1 to BH3) to a maximum depth of 5.0 metres below ground level (m bgl). The soils encountered were generally logged in accordance with NZ Geotechnical Society Logging Guidelines for the field classification of soil and rock for engineering purposes. Measurements of the undrained shear strength were taken at 200mm intervals at the auger locations using a calibrated shear vane.

Observations and measurements of the soil moisture content and levels of groundwater encountered in the boreholes were taken. The possible seasonal variation of these levels was noted and compared to the regional groundwater table expected for the area and the timing of the investigation.

Penetrometer testing was also used to infill the ground model and assess the ground variability across the site. Five penetrometers (BH2/P and P1 to P4) were progressed to a maximum depth of 5.0m bgl. The penetrometer tests were measured in 100mm increments.

The approximate location of the hand auger boreholes and penetrometer tests are shown on the Geotechnical Testing Plan included in Appendix B and field testing logs are included in Appendix C.

## 7 Subsurface Conditions

### 7.1 Ground Conditions

The subsurface conditions encountered during the ground investigation in boreholes BH2 and BH3 are generally consistent with the published geological information and a typical weathering profile of the underlying bedrock material was encountered.

Borehole BH1 encountered the Kerikeri Volcanic Group, which is inferred to be overlying the Waipapa Group in the northern portion of the site.

Further discussion on the materials encountered during the site investigation is presented below.

#### 7.1.1 Fill

Fill was encountered in borehole BH1 comprising stiff to very stiff silty clay and silty clay with gravel to a depth of 0.6m bgl. Undrained shear strength measured in the fill ranged from 95 to greater than 166kPa.

Although not encountered during the site investigations, fill is anticipated be present behind the timber landscape retaining wall and down slope of where cuts have been made to form tracks.

#### 7.1.2 Topsoil

Topsoil was encountered in boreholes BH2 and BH3 completed at the site. Topsoil comprising dark brown clayey silt and silty clay with rootlets was encountered to depths of 0.2 to 0.3m bgl in boreholes BH2 and BH3 respectively.

#### 7.1.3 Buried Topsoil

Borehole BH1 encountered buried topsoil underlying the fill at a depth of 0.6 to 0.8m bgl. The buried topsoil comprised dark brown silty clay, trace rootlets.

#### 7.1.4 Kerikeri Volcanic Group

Residual soil of the Kerikeri Volcanic Group was encountered in borehole BH1 completed at the site. The residual soil typically comprised stiff to very stiff silty clay and clayey silt encountered at depths of between 0.8 to 4.5m bgl. Measured undrained shear strengths ranged from 59 to 164kPa.



Borehole BH1 encountered effective auger refusal at 4.5m bgl on what was inferred to be basalt cobbles/boulders.

## 7.2 Waipapa Group

### 7.2.1 Residual Soil

Waipapa Group residual soil was encountered in boreholes BH2 and BH3 and comprised very stiff silty clay to depths of between 1.6 to 2.2m bgl. Undrained shear strengths measured ranged from 95 to greater than 166kPa.

### 7.2.2 Completely Weathered Rock

Completely weathered rock was encountered underlying the residual soil in boreholes BH2 and BH3 and comprised very stiff silty clay and clayey silt to depths between 3.8 to 4.4m bgl. Undrained shear strengths measured ranged from 114 to greater than 166kPa.

Completely weathered rock was inferred from penetrometer readings equal to or greater than 8 blows/100mm.

### 7.2.3 Highly Weathered Rock

Highly weathered rock was encountered in boreholes BH2 and BH3 comprising very stiff to hard silty clay from depths of between 3.8 and 4.4m bgl. Undrained shear strengths measured ranged from 140 to greater than 166kPa.

Highly weathered rock was inferred from penetrometer readings equal to or greater than 20 blows/100mm.

## 7.3 Groundwater

Ground conditions were generally moist and no groundwater was observed during the shallow ground investigation (progressed to a maximum depth of 5.0 mbgl). The moisture content of the near surface soils is expected to be high and groundwater table could be expected to rise during the winter months or extended periods of wet weather.

## 7.4 Site Subsoil Category

The site subsoil class is considered to be Class C shallow soil site as defined by NZS 1170.5 (2004) "Structural Design Actions: Part 5: Earthquake actions – New Zealand" based on our database of deep investigation data and published geological information.

## 7.5 Soil Shrink-swell Potential

The near surface soils are considered to be moderately to highly expansive soils with a likely liquid limit above 50% based on their physical characteristics observed during testing and relevant project experience. We note that no laboratory testing of the material to confirm the liquid limit or presence of clay swelling minerals has been undertaken, however material characteristics indicate that they are potentially expansive.

## 7.6 Possible Liquefaction Potential

A detailed liquefaction hazard assessment for the site was outside our work scope, however the soils underlying the site are considered to have a low potential for liquefaction-induced settlement due to the cohesive nature of the underlying soils.



## 8 Preliminary Engineering Evaluation

### 8.1 Slope Stability

The stability of the possible building area was assessed using the limit equilibrium software package Slide2 by Rocscience, adopting the GLE/Morgenstern-Price method for circular failure surfaces.

The soil parameters used for the analysis are presented below in Table 1 and are based on the results of the site investigations and experience with the local soils. Normal groundwater level (NGWL) has been assumed at a depth of 5m bgl and an extreme groundwater level (EGWL) has been assumed at the existing ground surface level.

**Table 1. Geotechnical Parameters for Slope Stability Analysis**

Description	Unit Weight $\gamma$ (kN/m <sup>3</sup> )	Effective Cohesion $c'$ (kPa)	Friction Angle $\phi'$ (degrees)
Existing Fill	20	3	28
Kerikeri Volcanic Group – Residual Soil	18	5	30
Waipapa Group - Residual Soil	18	7	32
Waipapa Group - Completely Weathered Rock	19	10	34
Waipapa Group - Highly Weathered Rock	20	20	34

The stability of profile B through the possible building area has been assessed. The location of Profiles A and B measured onsite is shown on the geotechnical test location plan in Appendix A.

The degree of stability of a slope can be expressed by the Factor of Safety (FoS), which is the ratio of the forces resisting failure to the driving forces causing instability. Theoretical failure of a slope occurs when the FoS is less than 1.0. The slope stability assessment carried out for the site assumed a minimum FoS of 1.5 under normal groundwater conditions and between 1.1 and 1.3 under extreme groundwater conditions. For this analysis we have used a FoS of 1.2 under EGWL.



## 8.2 Preliminary Slope Stability Analysis Results

The results of the preliminary stability analysis are summarised below in Table 2 and outputs from the slope stability analysis are presented in Appendix D. The stability analysis carried out includes the original ground surface profile under NGWL and EGWL and the possible finished surface level under NGWL and EGWL.

**Table 2. Slope stability analysis results**

Scenario	Profile	Profile Assessed	Factor of Safety (FoS)	
			NGWL	EGWL
1	B	Original Ground Surface Level	1.46	0.71
2	B	Possible Finished Ground Surface Level, retaining wall with regraded slope	1.96	1.156
3	B	Possible Finished Ground Surface Level, retaining wall with regraded slope and leading edge piles.	1.96	>1.2*

Table Notes – Results below the minimum required factor of safety (1.5 NGWL and 1.2 EGWL) are presented in red. \* Factors of safety of less than 1.2 exist downslope of the dwelling, however the dwelling is protected against slippage by the leading edge piles.

The preliminary stability analysis carried out for the possible building area indicates the very steep slope in the northern portion of the property does not meet the minimum FoS under NGWL or EGWL conditions, with FoS of less than 1.5 and 1.2 respectively. This is consistent with historic aerial photographs that indicate historic ground movement has occurred in the vicinity of the property and shallow soil movement that was observed on the steep slope during the site walkover.

In order to demonstrate that the minimum FoS can be achieved a retaining wall has been used to retain the very steep slope in the northern portion of the property and to provide a relatively level building area on which a dwelling could be constructed using timber pile foundations. Above the retaining wall, the ground has been regraded back to the property boundary (existing fence) to 1V:3H.

In addition to the retaining wall, leading edge piles have been used along the southern extent of the possible building area to protect the building area from slippage of the slopes below.

## 9 Preliminary Engineering Recommendations

The site is considered to be suitable for the proposed subdivision scheme plan depicted on the Thomson Survey drawing included in Appendix A provided that the following engineering recommendations are adopted.

### 9.1 Preliminary Slope Stability

The results of the slope stability assessment indicate that the possible building area does not meet the stability criteria under normal ground water conditions or extreme groundwater conditions with FoS of less than 1.5 and 1.2 respectively.

In order to demonstrate that the minimum FoS can be achieved under both NGWL and EGWL conditions, a retaining wall has been used to retain the steep slope in the northern portion of the property and to provide a relatively level building area on which a dwelling could be constructed using timber pile foundations. Above the retaining wall, the ground has been regraded back to the property boundary (existing fence) to 1V:3H.

In addition to the retaining wall, leading edge piles have been used along the southern extent of the possible building area to protect the building area from slippage of the slopes below.



An alternate to the retaining wall along the northern side of the possible building area may be a cut slope with soil nails. An alternative to the leading edge piles along the southern side of the possible building area may be a palisade (in-ground) retaining wall, this could be continued above existing ground level to provide a flat area to the south of the proposed building area.

It should be appreciated that the purpose of this report is to demonstrate that an engineering solution exists which mitigates the stability hazard, in order to show feasibility. While a solution is provided at a feasibility level within this report, alternative engineering measures may need to be implemented when the details of a proposed building are known.

It is recommended that specific geotechnical investigation, analysis and design is carried out by a Chartered Professional Engineer experienced in geotechnical engineering at the Building Consent stage to confirm the requirements of retaining walls, leading edge piles, palisade retaining walls and slope stability remedial works depending on the proposed final details of the development.

## 9.2 Earthworks

It is recommended that all earthworks including retaining structures are designed by a Chartered Professional Engineer Chartered Professional Engineer experienced in geotechnical engineering.

## 9.3 Foundation Recommendations

The ground conditions present do not meet the requirements of ‘good ground’ in accordance with NZS3604(2011) due to the highly expansive nature of the near surface soils and the presence of fill over parts of the site.

It is recommended that foundations are designed by a Chartered Professional Engineer at the Building Consent stage.

## 9.4 Stormwater and Drainage Recommendations

All surface water should be collected and diverted in a controlled manner. All stormwater collected from building areas should be piped to the bottom of the hillside and discharged in a controlled manner well clear of structures, fill, slopes and cut faces. Cut off drains are expected to be required above retaining structures.

It is recommended that stormwater management is designed by a Chartered Professional Engineering at the Building Consent stage.

## 10 Conclusion

The site is considered to be suitable for the proposed subdivision scheme plan depicted on the Thomson Survey subdivision scheme plan presented in Appendix A provided that the engineering recommendations outlined in this report are adopted for proposed Lot 2.

Due to the geotechnical site constraints present at the site, it is recommended that all earthworks, retaining structures, foundations, and stormwater management be designed by a Chartered Professional Engineer with experience in geotechnical engineering. Retaining structures are expected to be required to form stable building areas on the proposed Lot.



# Appendix A

## Proposed Subdivision Scheme Plan





MEMORANDUM OF EASEMENTS			
PURPOSE	SHOWN	SERVIENT TENEMENT	DOMINANT TENEMENT
RIGHT OF WAY, TELECOMMUNICATIONS, ELECTRICITY & WATER SUPPLY	(A)(B)	LOT 1 HEREON	LOT 2 HEREON

EXISTING EASEMENT		
PURPOSE	SHOWN	SERVIENT TENEMENT
RIGHT OF WAY & WATER SUPPLY	(A)(B)	LOT 1 HEREON
WATER SUPPLY	(B)	LOT 1 HEREON
RIGHT OF WAY	(A)(B)	LOT 1 HEREON

CREATED BY  
 E.C. 289273.2  
 Transfer: 651678  
 Transfer: A122973  
 Transfer: A7176  
 Transfer: A106373  
 Transfer: A115460  
 Transfer: A115461

THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF THOMSON SURVEY LTD AND MAY NOT BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THOMSON SURVEY LTD  
 AREAS AND MEASUREMENTS ARE SUBJECT TO FINAL SURVEY  
 TOPOGRAPHICAL DETAIL IS APPROXIMATE ONLY AND SCALED FROM AERIAL PHOTOGRAPHY

Local Authority: Far North District Council  
 Comprised in: NA10C/915  
 Total Area: 9566m²  
 Zoning: Coastal Living  
 Resource features: NIL

This plan and accompanying report(s) have been prepared for the purpose of obtaining a Resource Consent only and for no other purpose. Use of this plan and/or information on it for any other purpose is at the user's risk.



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 www.thomsonsurvey.co.nz

Registered Land Surveyors, Planners & Land Development Consultants

## PROPOSED SUBDIVISION OF LOT 6 DP 56648

201 KERIKERI ROAD, KERIKERI

PREPARED FOR: R. MILLER

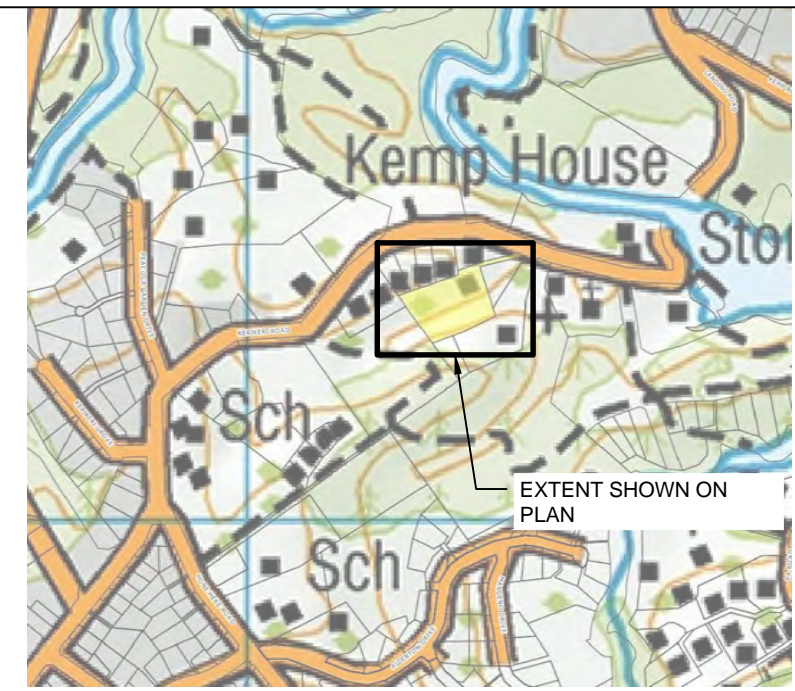
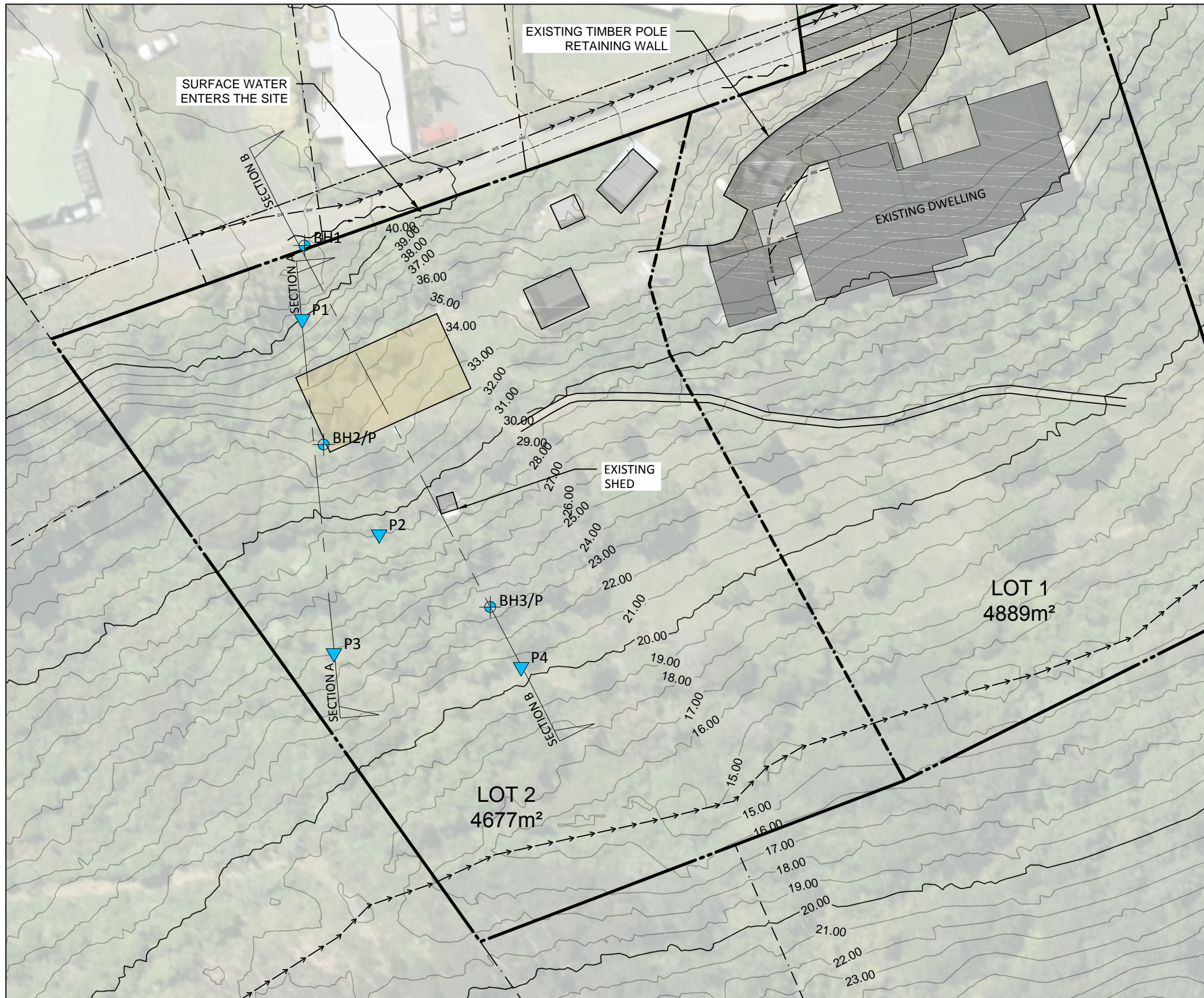
Name	Date	ORIGINAL SCALE	SHEET SIZE
Survey		1:750	A3
Design	KY		
Drawn	13.08.20		
Approved			
Rev			

Surveyors Ref. No: 9819  
 Series: 9819  
 Sheet 1 of 1

# Appendix B

## Geotechnical Testing Plan

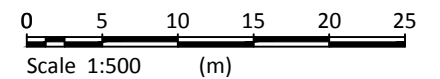




**LOCALITY MAP**  
SCALE A3 NTS

LEGEND	
SITE BOUNDARY	
ADJOINING BOUNDARY	
PROPOSED BOUNDARY	
EASEMENT	
OPEN DRAIN	
PIPED STORMWATER	
POSSIBLE BUILDING AREA	
HAND AUGER BOREHOLE	
DYNAMIC CONE PENETROMETER	

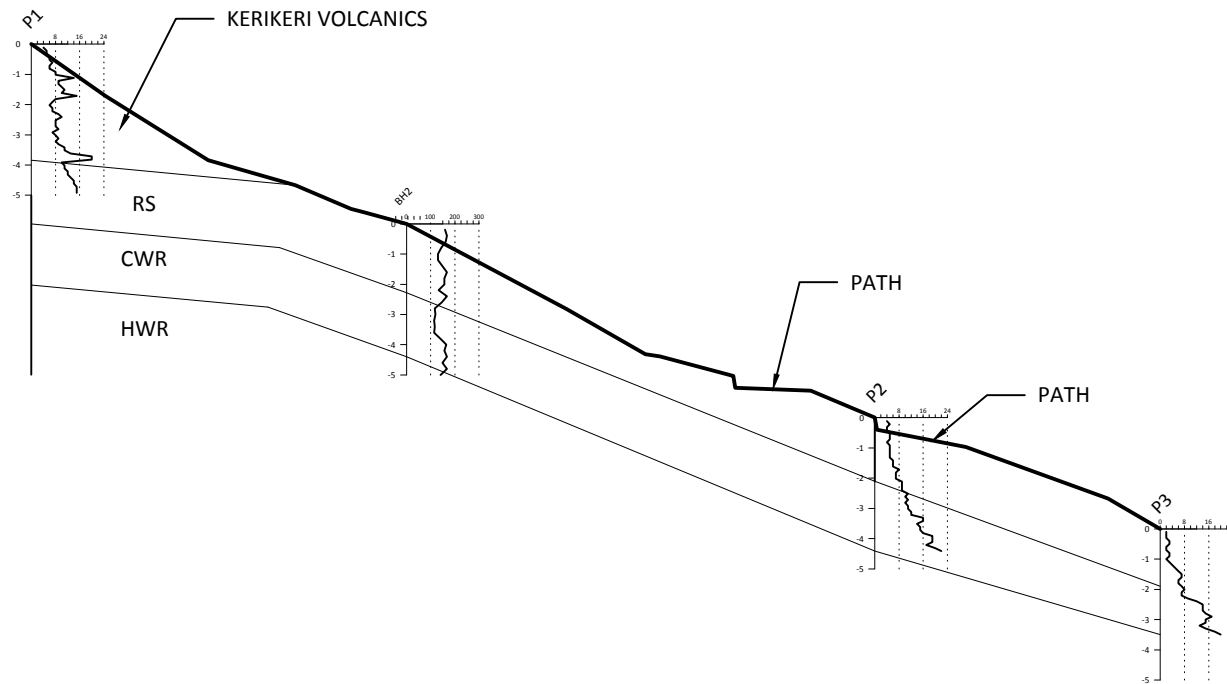
- NOTE:**
- ALL STRUCTURES AND FEATURES ARE APPROXIMATE IN LOCATION AND SIZE AND HAVE BEEN BASED FROM A SITE WALKOVER AND USE OF AERIAL IMAGE AND THOMPSON SURVEY, REF. 9819.
  - 1m CONTOURS, from 2018 LIDAR SUPPLIED BY NORTHLAND REGIONAL COUNCIL, DATUM ONE TREE POINT 1964
  - LINZ 2014-16 AERIAL IMAGE



	CLIENT	RICHARD MILLER	PROJECT	201 KERIKERI ROAD KERIKERI PROPOSED LOT 2	DRAWING TITLE	GEOTECHNICAL TESTING PLAN	FOR RC	
					SURVEY	A FOR RESOURCE CONSENT	BCP 17/11/2020	SCALE 1:500
					DESIGN	CS 04/05/2021		SHEET 01 OF 02
					DRAWN	CS 04/05/2021		PROJECT 14599
					CHECKED	DS 05/05/2021		THIS ARTWORK IS THE COPY RIGHT MATERIAL OF VCE
				APPROVED	DS 05/05/2021	No	REVISION	BY DATE
								REV A

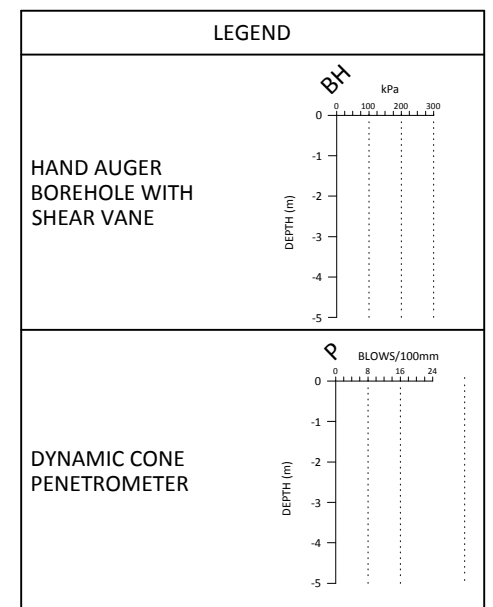
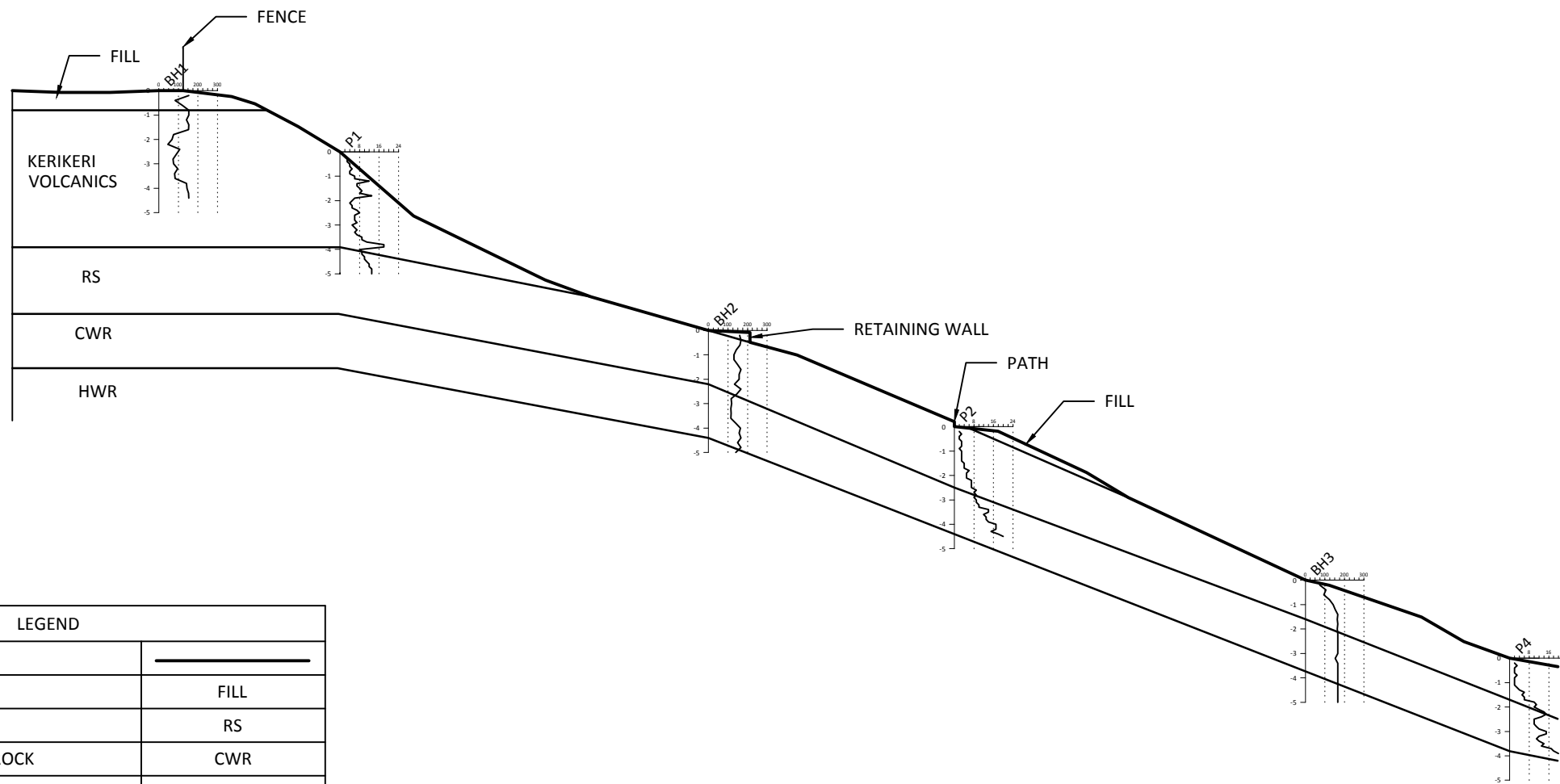
**SECTION A**

SCALE (A3) 1:250

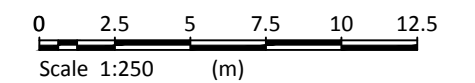


**SECTION B**

SCALE (A3) 1:250



LEGEND	
EXISTING GROUND	
FILL	FILL
RESIDUAL SOIL	RS
COMPLETELY WEATHERED ROCK	CWR
HIGHLY WEATHERED ROCK	HWR



FOR RC



CLIENT

RICHARD MILLER

PROJECT

201 KERIKERI ROAD  
KERIKERI  
PROPOSED LOT 2

DRAWING TITLE

PROFILES A + B

SURVEY		
DESIGN	CS	04/05/2021
DRAWN	CS	04/05/2021
CHECKED	DS	05/05/2021
APPROVED	DS	05/05/2021

A	FOR RESOURCE CONSENT	DS	05/05/2021	SCALE	1:500
				SHEET	02 OF 02
				PROJECT	14599
				THIS ARTWORK IS THE COPY RIGHT MATERIAL OF VCE®	REV A
No	REVISION	BY	DATE		

# Appendix C

## Field Logs





# BOREHOLE LOG

**BOREHOLE No: BH1**

**VISION CONSULTING**  
Engineers & Planners

**Client: Richard Miller**

**Project: Geotech Investigation**

**VISION Project No.: J14599**

**Project Location: 210 Kerikeri Road, Kerikeri**

**Borehole Location:**  
Refer to site plan

**Hole started:** 28/04/2021  
**Hole completed:** 28/04/2021

**Drill method: 50mm Hand Auger**

**Drilled by:** CS  
**Checked by:** DS

Depth (m)	Graphic	Strength	Moisture	Soil Description	GEOLOGY & additional observations	Undrained Shear Strength (kPa)	
						0	40 80 120 160 200 240
0.0			M	Silty CLAY trace gravel and rootlets; light brown, coarse gravel angular, high plasticity	FILL		
0.1			M	with fine to coarse gravel, angular, trace fine to coarse sand, trace orange			
0.2		VSt		becoming brown with orange, yellow and white inclusions			166
0.3							
0.4		St		trace grey			95
0.5				mottled orange, brown and grey			
0.6		VSt	M	Silty CLAY, trace rootlets; dark brown, high plasticity	TOPSOIL		133
0.7							
0.8		VSt	M	Silty CLAY; brown, high plasticity	KERIKERI VOLCANICS		>166
0.9							
1.0				trace fine to medium gravel, sub rounded, highly weathered			>166
1.1							
1.2				orangish brown, trace yellow			154
1.3							
1.4				light brown			166
1.5				lenses of fine to coarse sand and fine to coarse gravel, sub angular			
1.6							164
1.7				with lenses of grey silt			
1.8		St					88
1.9							
2.0							
2.1		St	M	Silty CLAY trace sand; light brown, fine sand, medium to high plasticity			59
2.2							
2.3							
2.4		VSt		reddish orange, trace black			119
2.5				trace grey and yellow inclusions			
2.6		VSt	M	Clayey SILT trace sand, dark reddish brown, with white and yellowish brown, medium to high plasticity			102
2.7							
2.8		St					85
2.9							
3.0				brownish purple, with grey and orange			88
3.1							
3.2		VSt					109
3.3				whitish grey, trace brownish purple			
3.4		St		trace black			92
3.5							
3.6		St	M	Clayey SILT trace gravel and sand; streaked white, grey, orange and reddish brown, fine to medium gravel, sub angular, fine to coarse sand, high plasticity			95
3.7							
3.8		VSt	M	Clayey SILT with gravel and sand; brownish orange, trace grey and reddish brown, fine gravel, angular, fine to coarse sand, high plasticity			154
3.9							
4.0							156
4.1							
4.2				trace inclusions of medium gravel, rounded, black, highly weathered			164
4.3				becoming banded brown, grey and orange, trace black inclusions			
4.4							UTP
4.5				with coarse gravel, angular, slightly weathered, 35mm			
4.6				End of hole at 4.5m			
4.7				Effective Auger Refusal			
4.8				Groundwater not encountered			
4.9							
5.0							
5.1							
5.2							
5.3							
5.4							
5.5							
5.6							
5.7							
5.8							
5.9							

Notes: Shear strength lines are indicative only.  
Shear strength calibrated and adjusted for plasticity



# BOREHOLE LOG

**BOREHOLE No: BH2**

**VISION CONSULTING**  
Engineers & Planners

**Client: Richard Miller**

**Project: Geotech Investigation**

**VISION Project No.: J14599**

**Project Location: 210 Kerikeri Road, Kerikeri**

**Borehole Location:**  
Refer to site plan

**Hole started:** 28/04/2021

**Hole completed:** 28/04/2021

**Drill method: 50mm Hand Auger**

**Drilled by:** CS

**Checked by:** DS

Depth (m)	Graphic	Strength	Moisture	Soil Description	GEOLOGY & additional observations	Undrained Shear Strength (kPa)								
						0	40	80	120	160	200	240		
0.0			M	Clayey SILT trace fine sand, dark brown, low plasticity with rootlets	TOPSOIL									
0.1														
0.2		VSt	M	Silty CLAY trace rootlets, dark brown, high plasticity light brown	RESIDUAL SOIL					159				
0.3														
0.4														
0.5				trace rootlets										
0.6										161				
0.7				pale yellowish brown										
0.8										142				
0.9														
1.0										130				
1.1														
1.2				trace white						130				
1.3				becoming greyish white, trace orange										
1.4										149				
1.5				trace inclusions gravel, medium, highly weathered										
1.6														
1.7														
1.8										156				
1.9														
2.0										156				
2.1														
2.2		VSt	M	Silty CLAY; greyish white with orange banding, high plasticity yellowish orange	COMPLETELY WEATHERED ROCK					133				
2.3														
2.4														
2.5														
2.6										145				
2.7														
2.8				banded orange and greyish white						116				
2.9														
3.0										119				
3.1														
3.2										114				
3.3														
3.4										116				
3.5														
3.6										114				
3.7														
3.8				mottled pinkish grey and orange						140				
3.9														
4.0				orange, trace white										
4.1														
4.2				trace inclusions of white						156				
4.3														
4.4		VSt	M	Silty CLAY; orange, trace white, trace lenses orange silt, high plasticity	HIGHLY WEATHERED ROCK									
4.5														
4.6				trace white fine to coarse sand						149				
4.7														
4.8														
4.9														
5.0				End of hole at 5.0m										
5.1				Target depth achieved										
5.2				Groundwater not encountered										
5.3														
5.4														
5.5														
5.6														
5.7														
5.8														
5.9														

Notes: Shear strength lines are indicative only.  
Shear strength calibrated and adjusted for plasticity



VISION CONSULTING  
Engineers & Planners

# DYNAMIC CONE PENETROMETER TEST LOG

PENETROMETER  
TEST No: **BH2/P**

Client: Richard Miller

Project: Geotech Investigation

VISION Project No.: J14599

Location: 210 Kerikeri  
Road, Kerikeri

Test Location: Refer to site plan

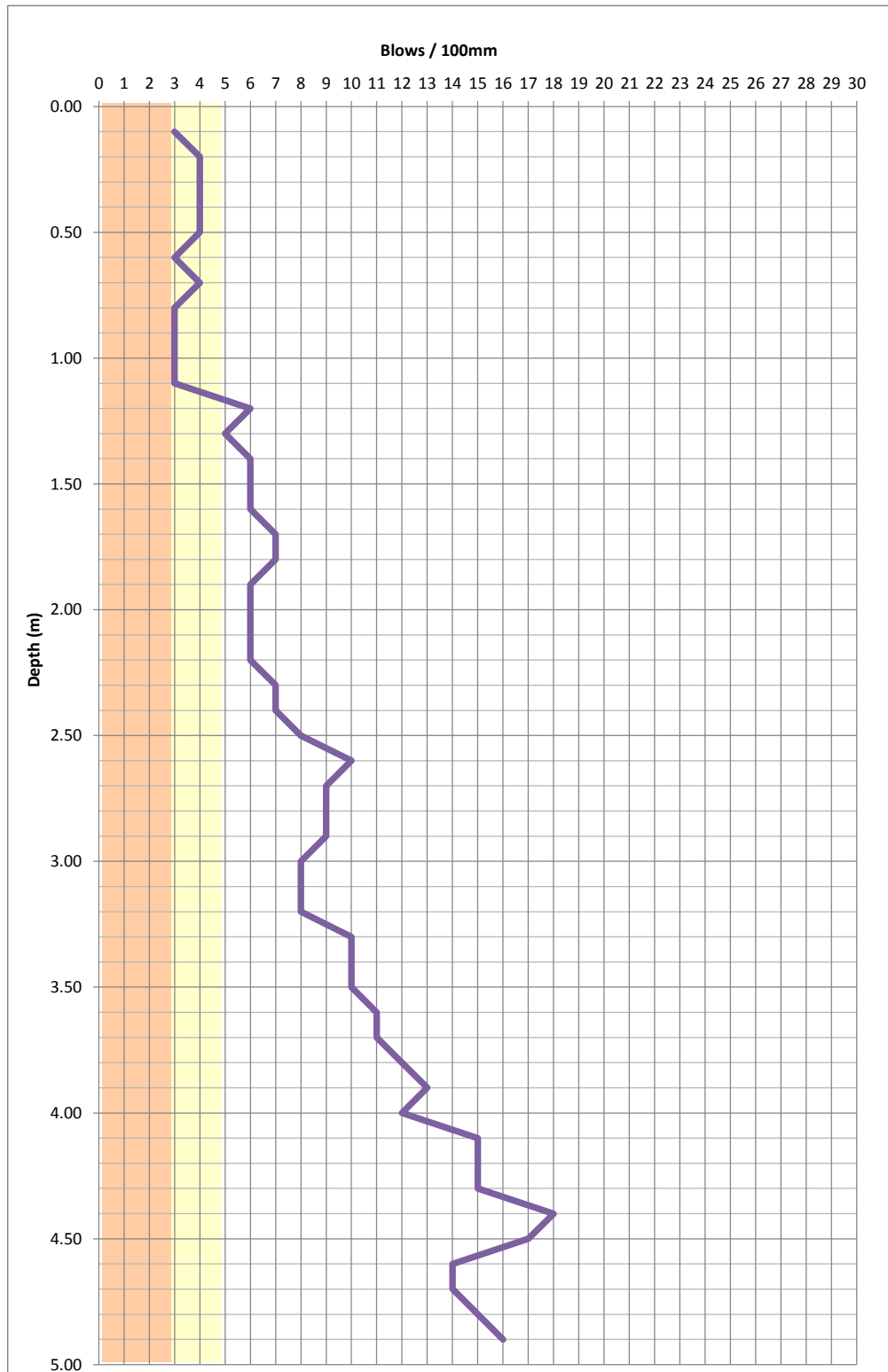
Test date: 28/04/2021

Test method: Dynamic Cone Penetrometer

Tested by: CS

Checked by: DS

Depth (m)	Blows/100mm
0.10	3.0
0.20	4.0
0.30	4.0
0.40	4.0
0.50	4.0
0.60	3.0
0.70	4.0
0.80	3.0
0.90	3.0
1.00	3.0
1.10	3.0
1.20	6.0
1.30	5.0
1.40	6.0
1.50	6.0
1.60	6.0
1.70	7.0
1.80	7.0
1.90	6.0
2.00	6.0
2.10	6.0
2.20	6.0
2.30	7.0
2.40	7.0
2.50	8.0
2.60	10.0
2.70	9.0
2.80	9.0
2.90	9.0
3.00	8.0
3.10	8.0
3.20	8.0
3.30	10.0
3.40	10.0
3.50	10.0
3.60	11.0
3.70	11.0
3.80	12.0
3.90	13.0
4.00	12.0
4.10	15.0
4.20	15.0
4.30	15.0
4.40	18.0
4.50	17.0
4.60	14.0
4.70	14.0
4.80	15.0
4.90	16.0
5.00	



\*Indicative only. Based on Stockwell (1977) correlation, bearing capacity factors excluded.

- Very low strength ground <2 blows per 100mm or less
- Low strength ground 2 to 4 blows per 100mm
- Ground with indicative ultimate bearing capacity of at least 300kPa\*

Notes:



# BOREHOLE LOG

**BOREHOLE No: BH3**

**VISION CONSULTING**  
Engineers & Planners

**Client: Richard Miller**

**Project: Geotech Investigation**

**VISION Project No.: J14599**

**Project Location: 210 Kerikeri Road, Kerikeri**

**Borehole Location:**  
Refer to site plan

**Hole started:** 28/04/2021

**Hole completed:** 28/04/2021

**Drill method: 50mm Hand Auger**

**Drilled by:** CS

**Checked by:** DS

Depth (m)	Graphic	Strength	Moisture	Soil Description	GEOLOGY & additional observations	Undrained Shear Strength (kPa)	
						0	40 80 120 160 200 240
0.0				Silty CLAY trace rootlets; dark brown, high plasticity	TOPSOIL	0	
0.1							
0.2						73	
0.3				Silty CLAY; orange, high plasticity trace fine gravel, trace fine to coarse sand, trace white trace bright orange	RESIDUAL SOIL	0.4	107
0.5							
0.6						95	
0.7							
0.8						124	
0.9							
1.0						142	
1.1							
1.2	154						
1.3							
1.4	UTP						
1.5							
1.6				Silty CLAY; orange and white banding with dark brown inclusions with pinkish orange with lenses of brown silt	COMPLETELY WEATHERED ROCK	1.6	164
1.7							
1.8						>166	
1.9							
2.0						164	
2.1							
2.2						>166	
2.3							
2.4						>166	
2.5							
2.6						>166	
2.7				Clayey SILT with sand; orange with white and dark brown, fine to coarse sand high plasticity		2.7	UTP
2.8							
2.9				Silty CLAY trace sand; white, trace orange, fine to coarse sand, high plasticity with inclusions black fine to coarse sand		3.0	>166
3.1							
3.2						154	
3.3							
3.4						>166	
3.5							
3.6						>166	
3.7							
3.8						>166	
3.9							
4.0	>166						
4.1							
4.2	>166						
4.3							
4.4	>166						
4.5							
4.6	>166						
4.7							
4.8	>166						
4.9							
5.0				End of hole at 5.0m		5.0	>166
5.1				Target depth achieved		5.1	
5.2				Groundwater not encountered		5.2	
5.3						5.3	
5.4						5.4	
5.5						5.5	
5.6						5.6	
5.7						5.7	
5.8						5.8	
5.9						5.9	

Notes: Shear strength lines are indicative only.

Shear strength calibrated and adjusted for plasticity



# DYNAMIC CONE PENETROMETER TEST LOG

PENETROMETER  
TEST No: **P1**

VISION CONSULTING  
Engineers & Planners

**Client:** Richard Miller

**Project:** Geotech Investigation

**VISION Project No.:** J14599

**Location:** 210 Kerikeri Road, Kerikeri

**Test Location:** Refer to site plan

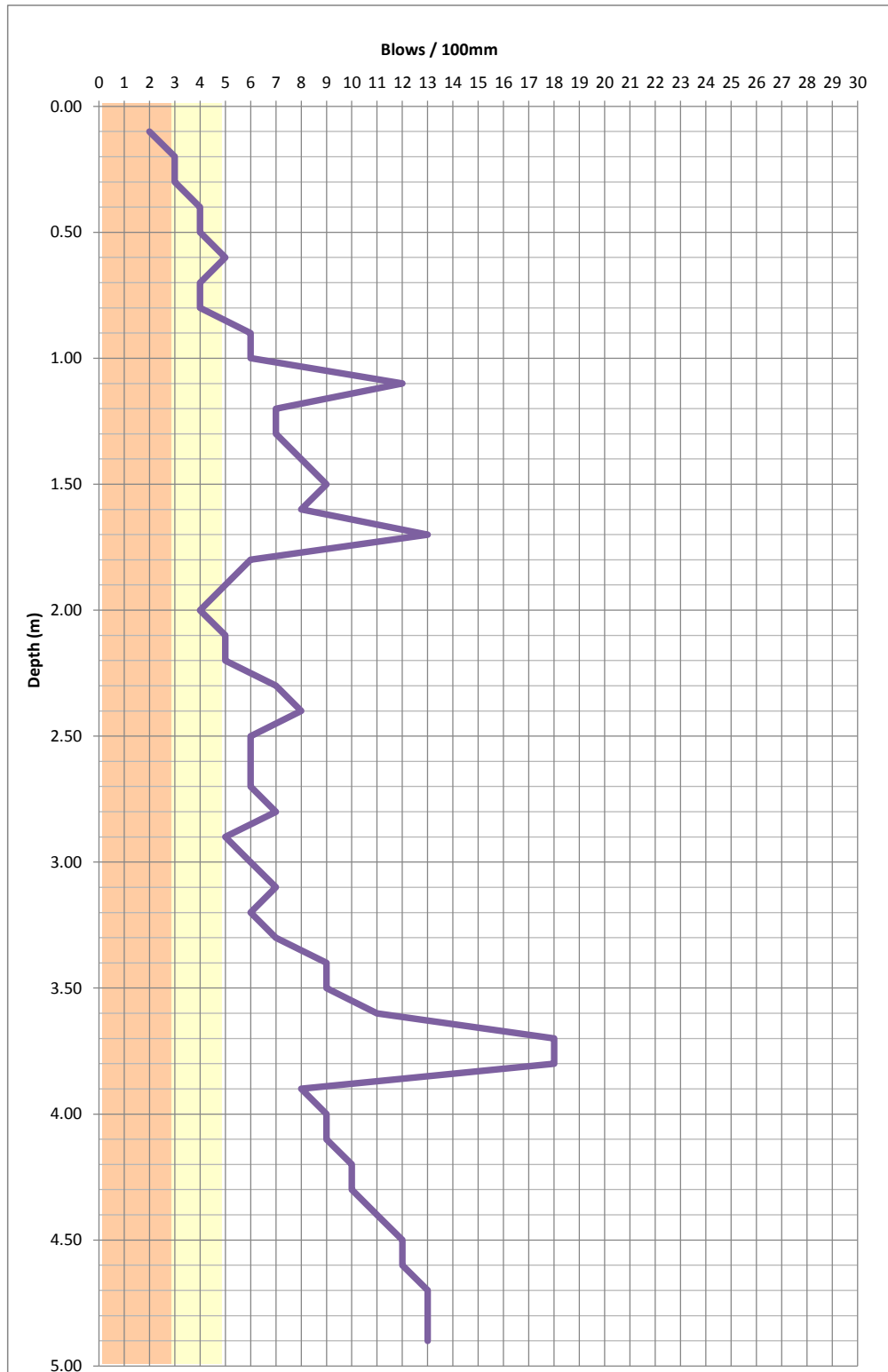
**Test date:** 29/04/2021

**Test method:** Dynamic Cone Penetrometer

**Tested by:** CS

**Checked by:** DS

Depth (m)	Blows/100mm
0.10	2.0
0.20	3.0
0.30	3.0
0.40	4.0
0.50	4.0
0.60	5.0
0.70	4.0
0.80	4.0
0.90	6.0
1.00	6.0
1.10	12.0
1.20	7.0
1.30	7.0
1.40	8.0
1.50	9.0
1.60	8.0
1.70	13.0
1.80	6.0
1.90	5.0
2.00	4.0
2.10	5.0
2.20	5.0
2.30	7.0
2.40	8.0
2.50	6.0
2.60	6.0
2.70	6.0
2.80	7.0
2.90	5.0
3.00	6.0
3.10	7.0
3.20	6.0
3.30	7.0
3.40	9.0
3.50	9.0
3.60	11.0
3.70	18.0
3.80	18.0
3.90	8.0
4.00	9.0
4.10	9.0
4.20	10.0
4.30	10.0
4.40	11.0
4.50	12.0
4.60	12.0
4.70	13.0
4.80	13.0
4.90	13.0
5.00	



\*Indicative only. Based on Stockwell (1977) correlation, bearing capacity factors excluded.

- Very low strength ground <2 blows per 100mm or less
- Low strength ground 2 to 4 blows per 100mm
- Ground with indicative ultimate bearing capacity of at least 300kPa\*

Notes:



# DYNAMIC CONE PENETROMETER TEST LOG

PENETROMETER  
TEST No: **P2**

VISION CONSULTING  
Engineers & Planners

**Client:** Richard Miller

**Project:** Geotech Investigation

**VISION Project No.:** J14599

**Location:** 210 Kerikeri Road, Kerikeri

**Test Location:** Refer to site plan

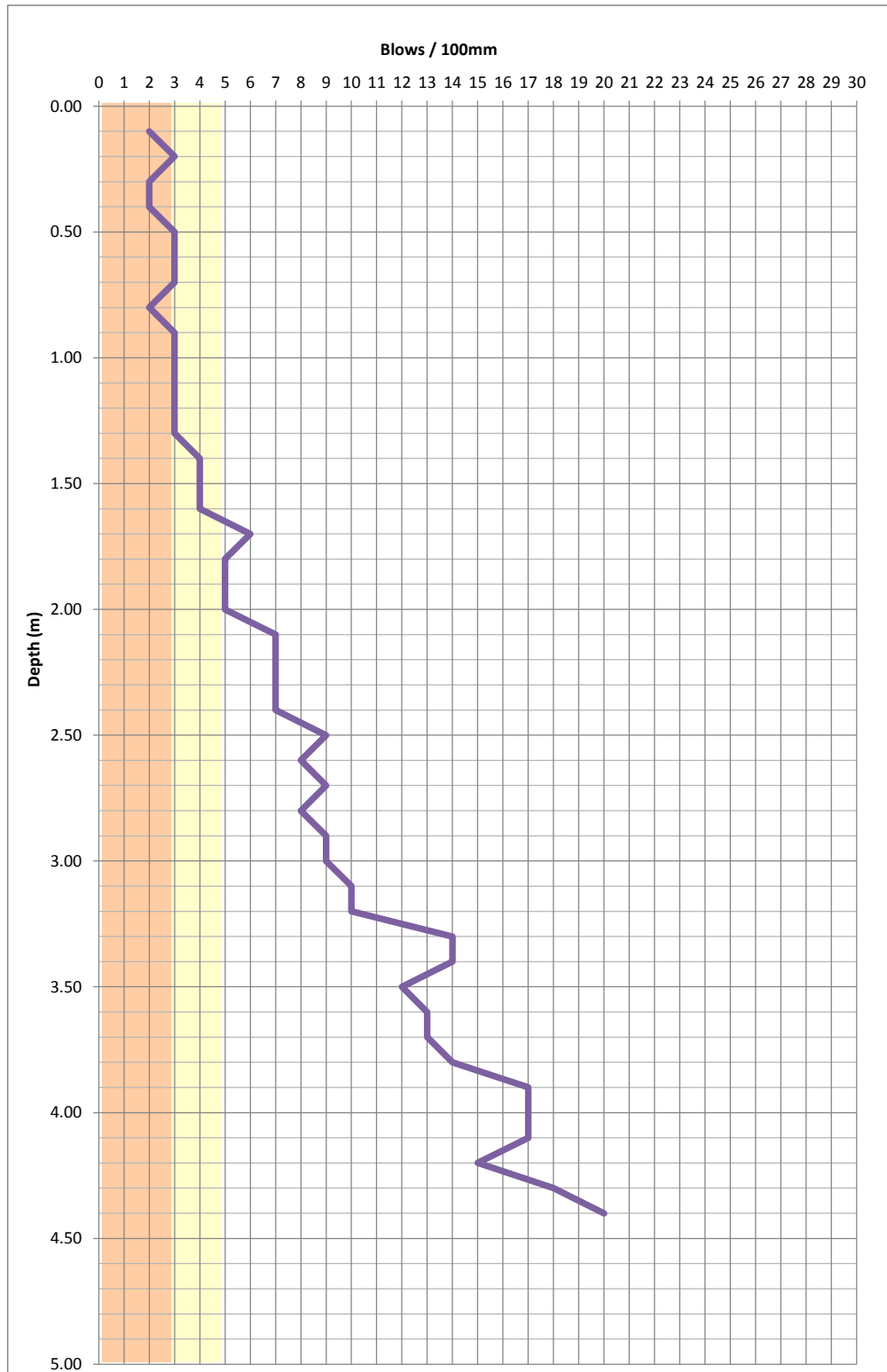
**Test date:** 29/04/2021

**Test method:** Dynamic Cone Penetrometer

**Tested by:** CS

**Checked by:** DS

Depth (m)	Blows/100mm
0.10	2.0
0.20	3.0
0.30	2.0
0.40	2.0
0.50	3.0
0.60	3.0
0.70	3.0
0.80	2.0
0.90	3.0
1.00	3.0
1.10	3.0
1.20	3.0
1.30	3.0
1.40	4.0
1.50	4.0
1.60	4.0
1.70	6.0
1.80	5.0
1.90	5.0
2.00	5.0
2.10	7.0
2.20	7.0
2.30	7.0
2.40	7.0
2.50	9.0
2.60	8.0
2.70	9.0
2.80	8.0
2.90	9.0
3.00	9.0
3.10	10.0
3.20	10.0
3.30	14.0
3.40	14.0
3.50	12.0
3.60	13.0
3.70	13.0
3.80	14.0
3.90	17.0
4.00	17.0
4.10	17.0
4.20	15.0
4.30	18.0
4.40	20.0
4.50	
4.60	
4.70	
4.80	
4.90	
5.00	



\*Indicative only. Based on Stockwell (1977) correlation, bearing capacity factors excluded.

- Very low strength ground <2 blows per 100mm or less
- Low strength ground 2 to 4 blows per 100mm
- Ground with indicative ultimate bearing capacity of at least 300kPa\*

Notes:



# DYNAMIC CONE PENETROMETER TEST LOG

**PENETROMETER  
TEST No: P3**

**VISION CONSULTING**  
Engineers & Planners

**Client:** Richard Miller

**Project:** Geotech Investigation

**VISION Project No.:** J14599

**Location:** 210 Kerikeri Road, Kerikeri

**Test Location:** Refer to site plan

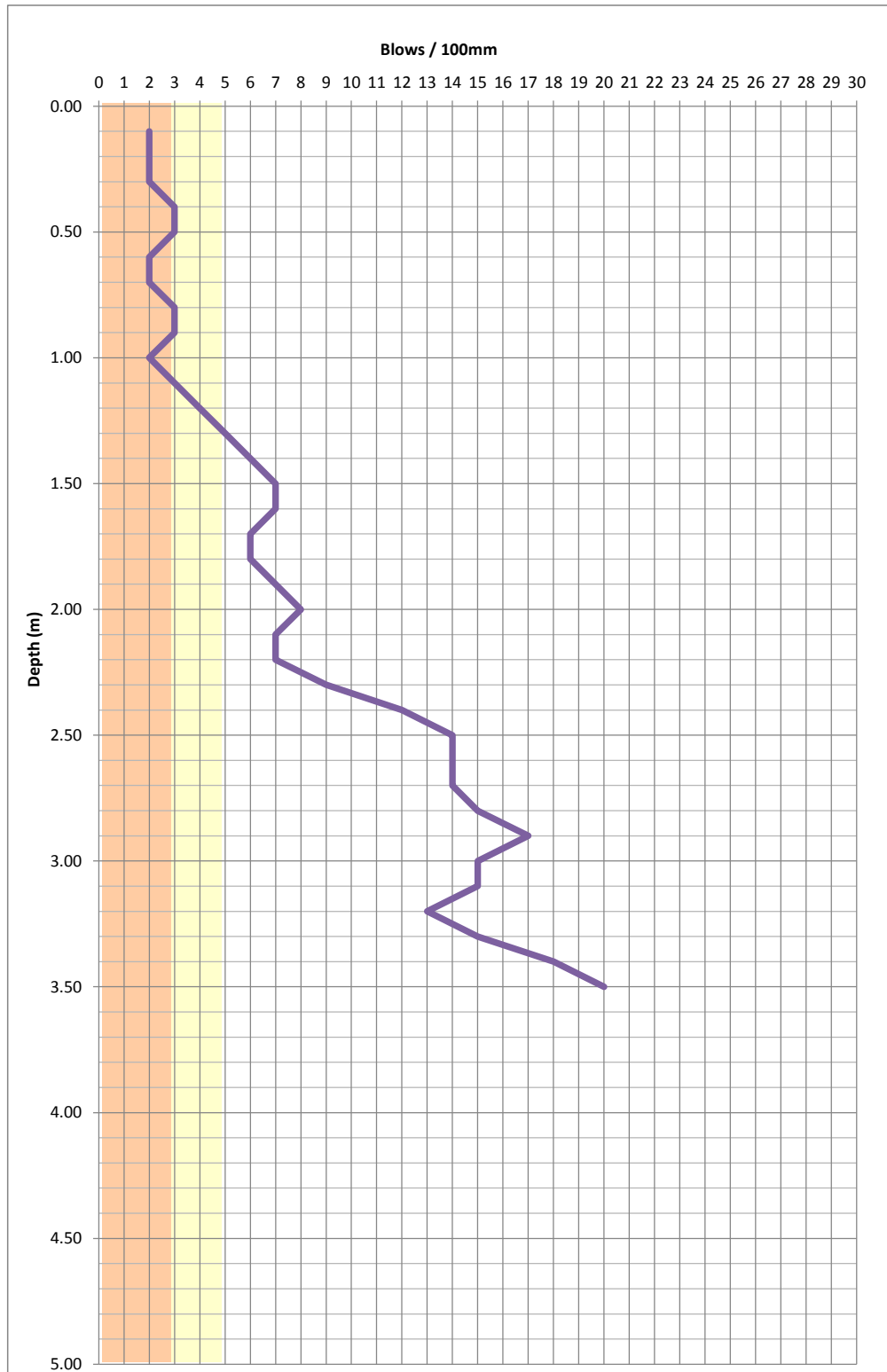
**Test date:** 29/04/2021

**Test method:** Dynamic Cone Penetrometer

**Tested by:** CS

**Checked by:** DS

Depth (m)	Blows/100mm
0.10	2.0
0.20	2.0
0.30	2.0
0.40	3.0
0.50	3.0
0.60	2.0
0.70	2.0
0.80	3.0
0.90	3.0
1.00	2.0
1.10	3.0
1.20	4.0
1.30	5.0
1.40	6.0
1.50	7.0
1.60	7.0
1.70	6.0
1.80	6.0
1.90	7.0
2.00	8.0
2.10	7.0
2.20	7.0
2.30	9.0
2.40	12.0
2.50	14.0
2.60	14.0
2.70	14.0
2.80	15.0
2.90	17.0
3.00	15.0
3.10	15.0
3.20	13.0
3.30	15.0
3.40	18.0
3.50	20.0
3.60	
3.70	
3.80	
3.90	
4.00	
4.10	
4.20	
4.30	
4.40	
4.50	
4.60	
4.70	
4.80	
4.90	
5.00	



\*Indicative only. Based on Stockwell (1977) correlation, bearing capacity factors excluded.

- Very low strength ground <2 blows per 100mm or less
- Low strength ground 2 to 4 blows per 100mm
- Ground with indicative ultimate bearing capacity of at least 300kPa\*

Notes:



# DYNAMIC CONE PENETROMETER TEST LOG

PENETROMETER  
TEST No: **P4**

VISION CONSULTING  
Engineers & Planners

**Client:** Richard Miller

**Project:** Geotech Investigation

**VISION Project No.:** J14599

**Location:** 210 Kerikeri Road, Kerikeri

**Test Location:** Refer to site plan

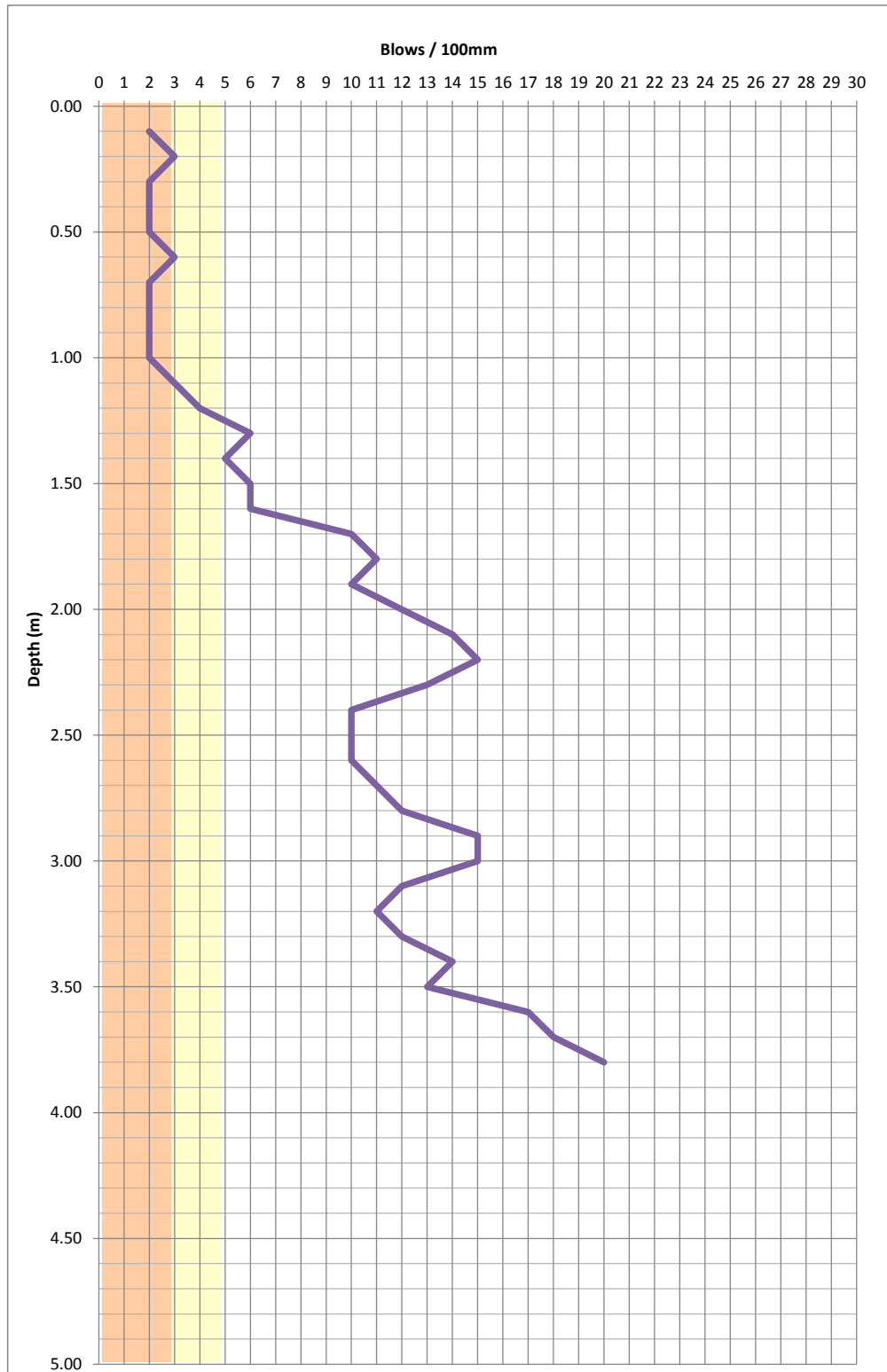
**Test date:** 29/04/2021

**Test method:** Dynamic Cone Penetrometer

**Tested by:** CS

**Checked by:** DS

Depth (m)	Blows/100mm
0.10	2.0
0.20	3.0
0.30	2.0
0.40	2.0
0.50	2.0
0.60	3.0
0.70	2.0
0.80	2.0
0.90	2.0
1.00	2.0
1.10	3.0
1.20	4.0
1.30	6.0
1.40	5.0
1.50	6.0
1.60	6.0
1.70	10.0
1.80	11.0
1.90	10.0
2.00	12.0
2.10	14.0
2.20	15.0
2.30	13.0
2.40	10.0
2.50	10.0
2.60	10.0
2.70	11.0
2.80	12.0
2.90	15.0
3.00	15.0
3.10	12.0
3.20	11.0
3.30	12.0
3.40	14.0
3.50	13.0
3.60	17.0
3.70	18.0
3.80	20.0
3.90	
4.00	
4.10	
4.20	
4.30	
4.40	
4.50	
4.60	
4.70	
4.80	
4.90	
5.00	



\*Indicative only. Based on Stockwell (1977) correlation, bearing capacity factors excluded.

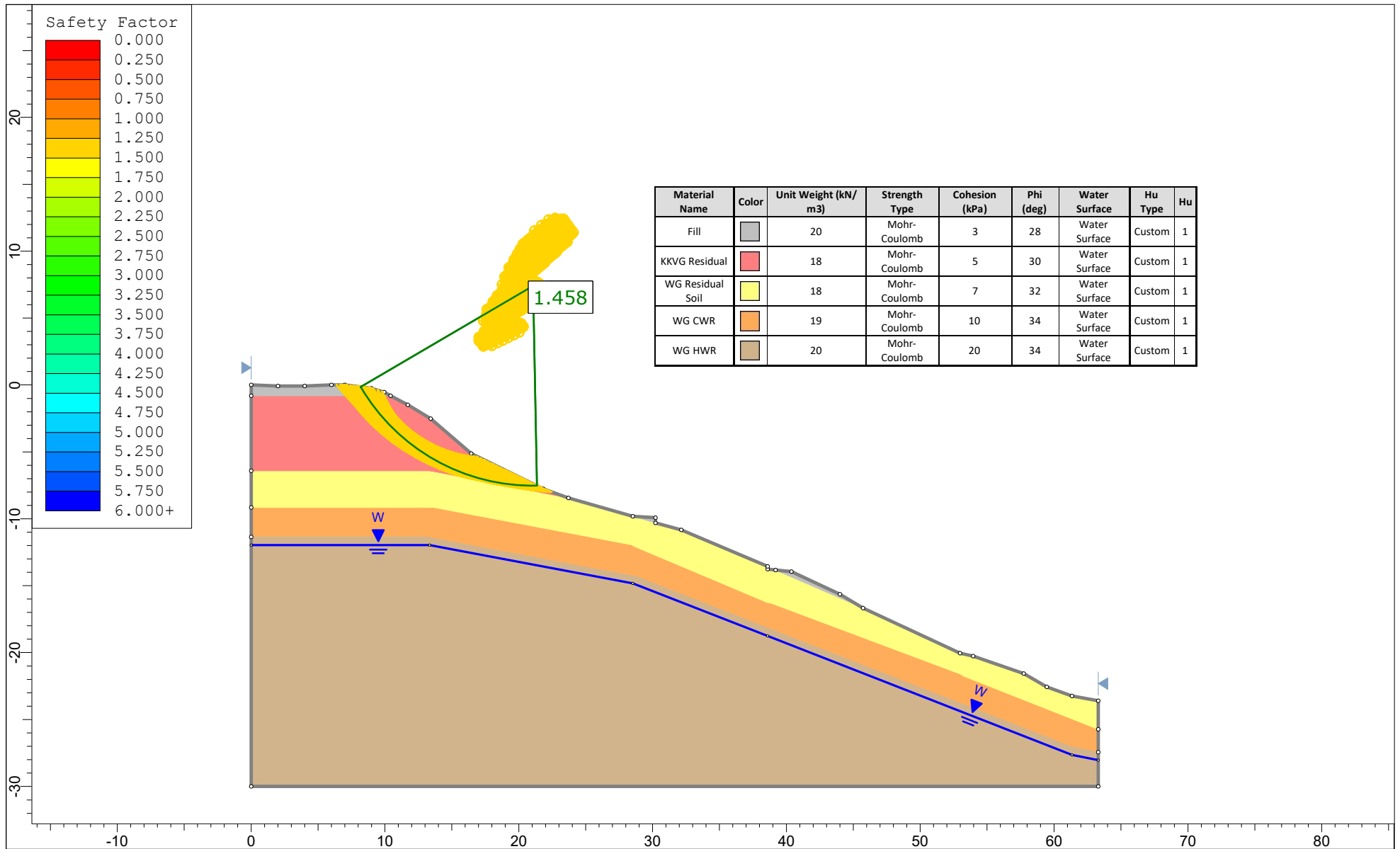
- Very low strength ground <2 blows per 100mm or less
- Low strength ground 2 to 4 blows per 100mm
- Ground with indicative ultimate bearing capacity of at least 300kPa\*

Notes:

# Appendix D

## Slope Stability Output

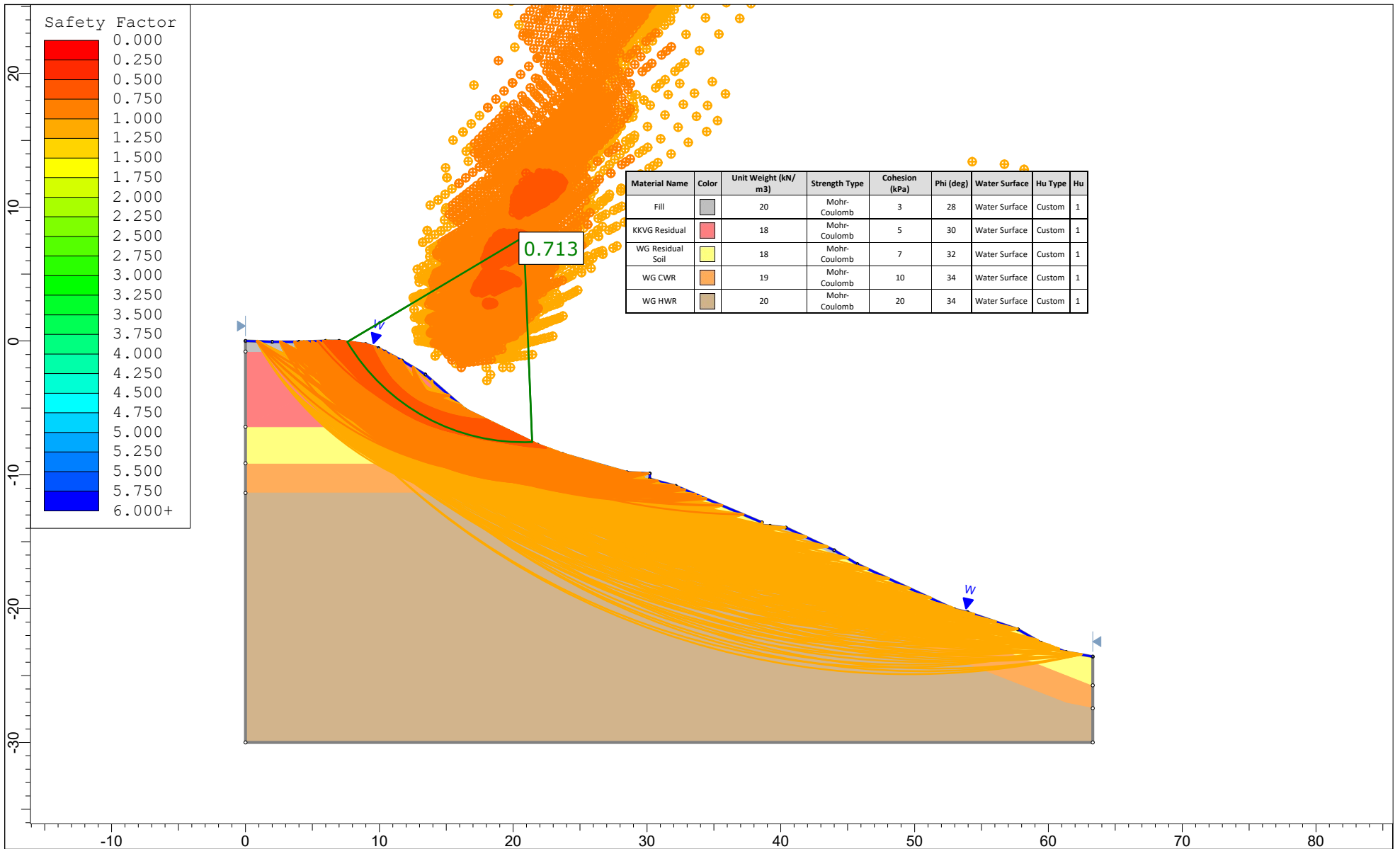





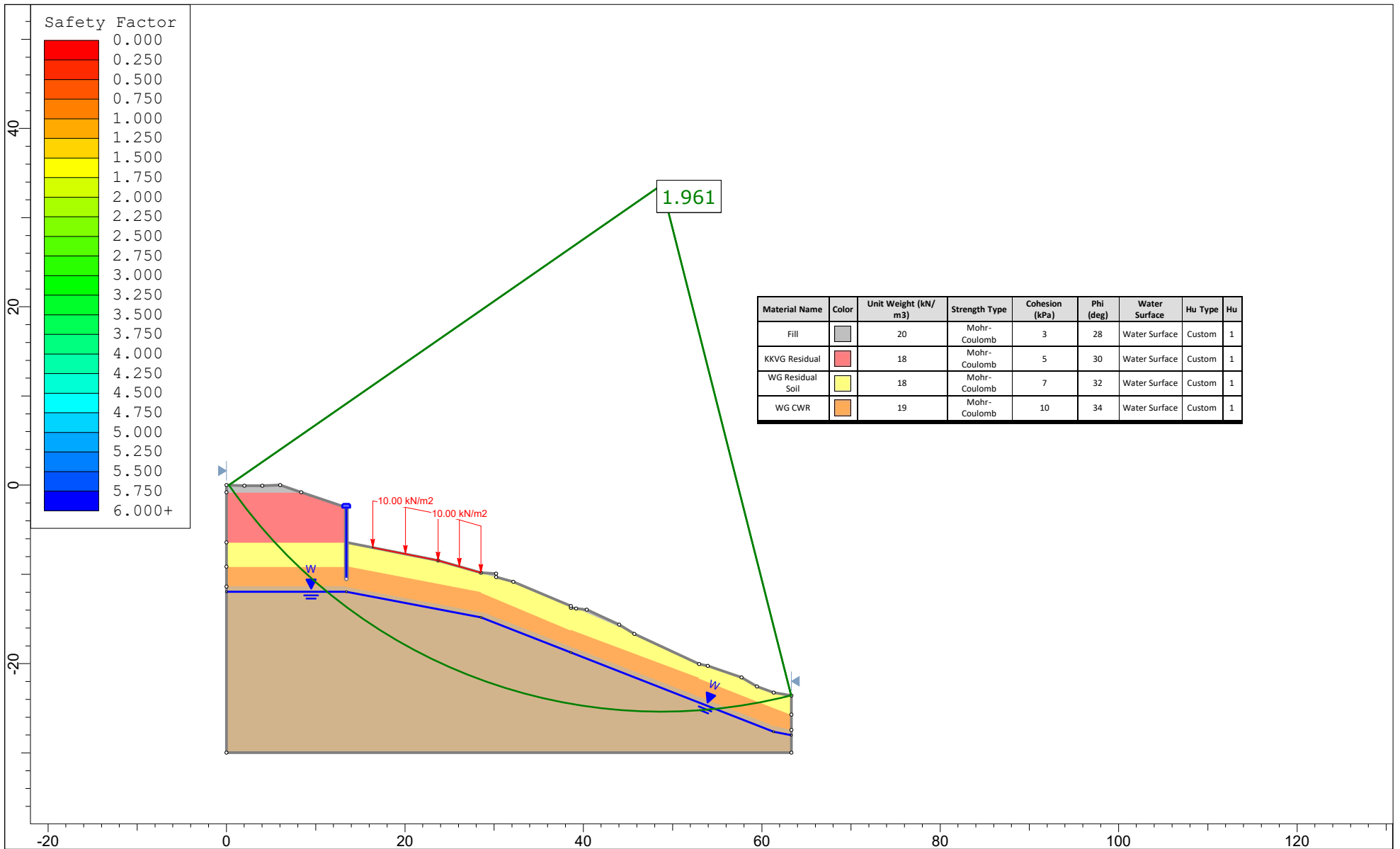
Material Name	Color	Unit Weight (kN/m <sup>3</sup> )	Strength Type	Cohesion (kPa)	Phi (deg)	Water Surface	Hu Type	Hu
Fill	Grey	20	Mohr-Coulomb	3	28	Water Surface	Custom	1
KKVG Residual	Red	18	Mohr-Coulomb	5	30	Water Surface	Custom	1
WG Residual Soil	Yellow	18	Mohr-Coulomb	7	32	Water Surface	Custom	1
WG CWR	Orange	19	Mohr-Coulomb	10	34	Water Surface	Custom	1
WG HWR	Brown	20	Mohr-Coulomb	20	34	Water Surface	Custom	1




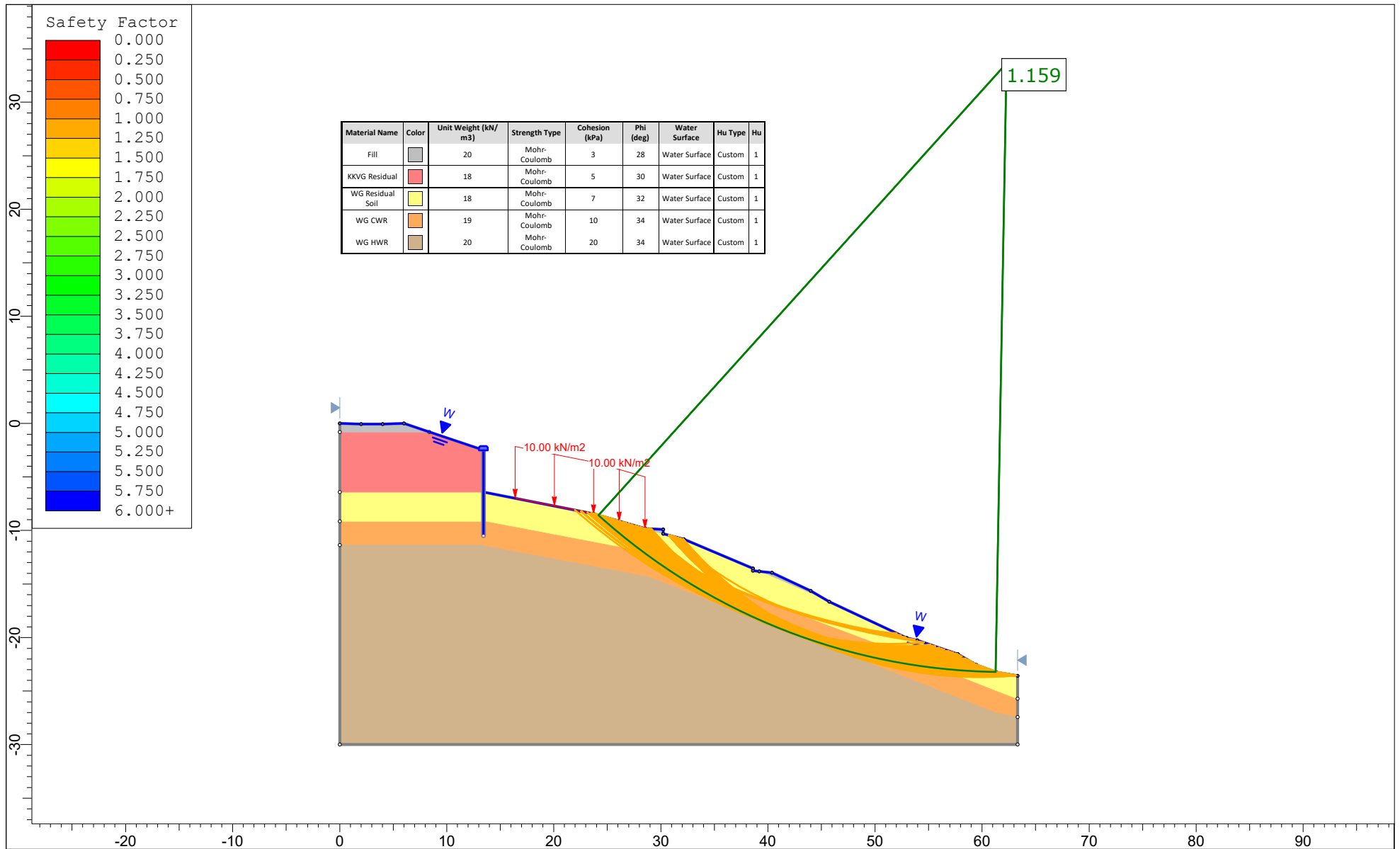
Project	J14599 - Proposed Lot 2, 201 Kerikeri Road, Kerikeri		
Group	Existing Ground Conditions	Scenario	NGWL
Drawn By	D.Simmonds	Company	VISION
Date	08/06/2021	File Name	14599 20210609 profile B.slmd



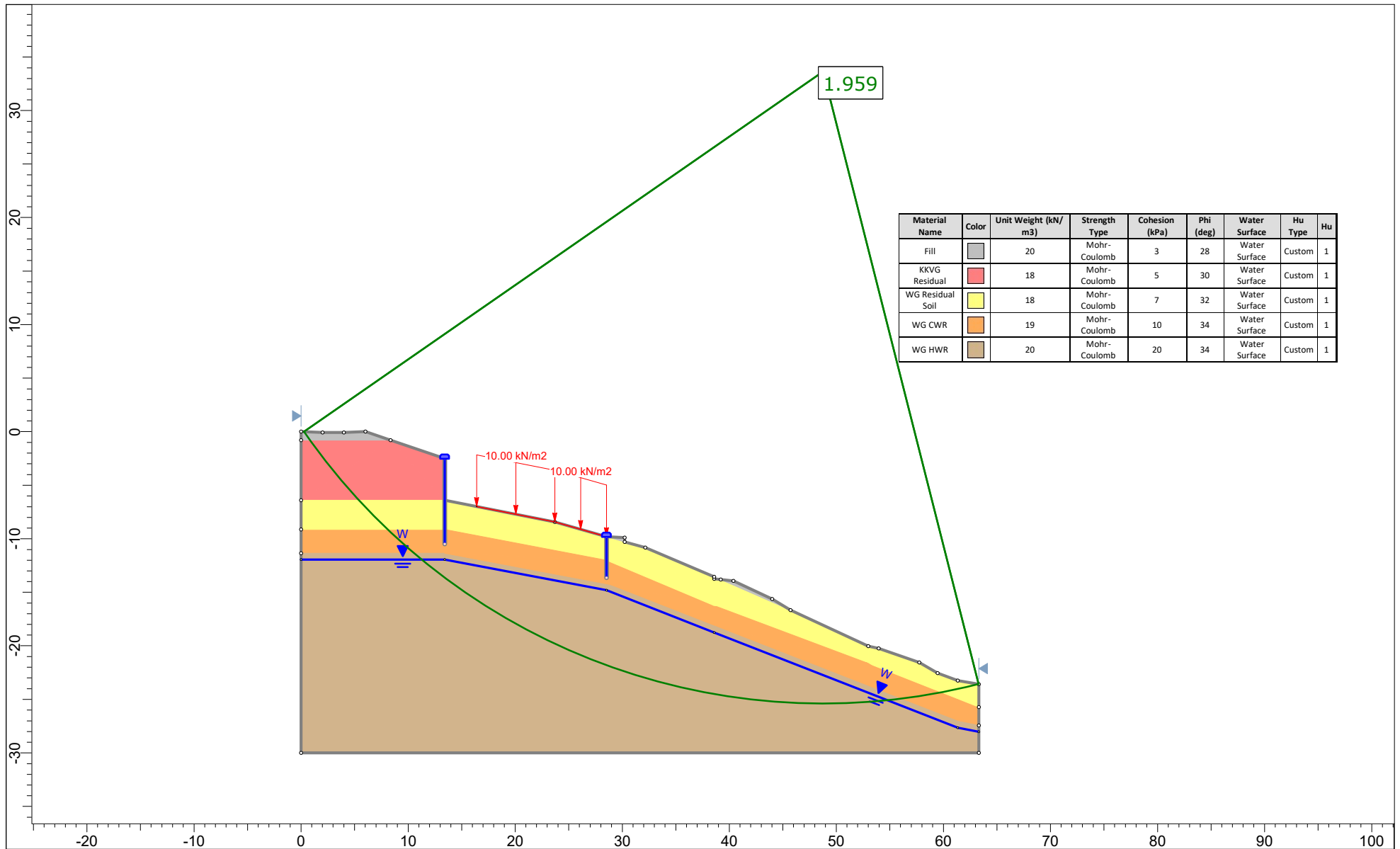
	Project		J14599 - Proposed Lot 2, 201 Kerikeri Road, Kerikeri	
	Group		Existing Ground Conditions	Scenario
	Drawn By		D.Simmonds	Company
	Date		08/06/2021	File Name
				EGWL
				VISION
				14599 20210609 profile B.slmd




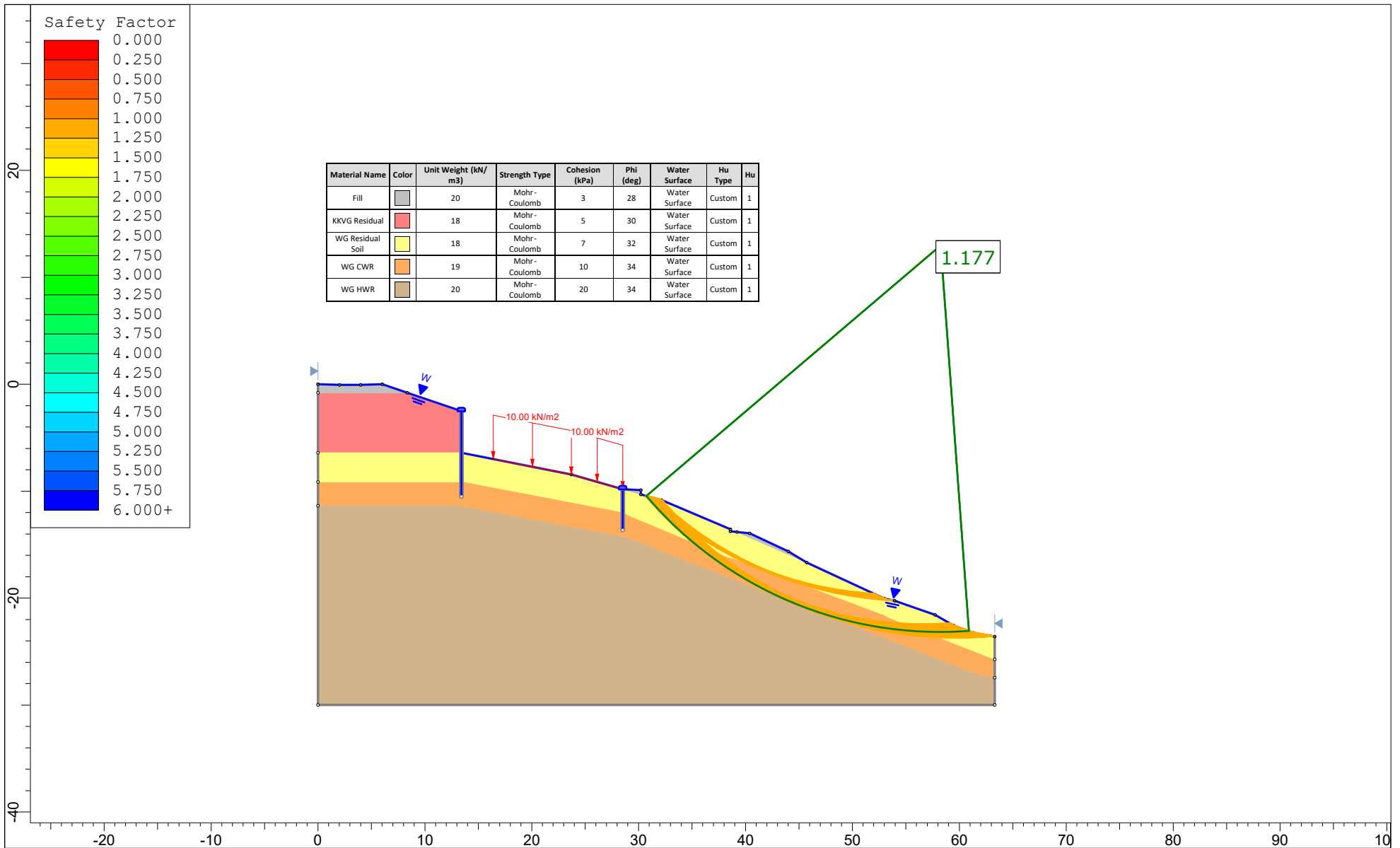
	Project	J14599 - Proposed Lot 2, 201 Kerikeri Road, Kerikeri	
	Group	Possible Final Ground Conditions	Scenario NGWL
	Drawn By	D.Simmonds	Company VISION
	Date	08/06/2021	File Name 14599 20210609 profile B final.slm



Project	J14599 - Proposed Lot 2, 201 Kerikeri Road, Kerikeri		
Group	Possible Final Ground Conditions	Scenario	EGWL
Drawn By	D.Simmonds	Company	VISION
Date	08/06/2021	File Name	14599 20210609 profile B final.sldm



	Project		J14599 - Proposed Lot 2, 201 Kerikeri Road, Kerikeri	
	Group		Possible Final Ground Conditions	Scenario
	Drawn By		D.Simmonds	Company
	Date		08/06/2021	File Name
			NGWL with leading edge piles	
			VISION	
			14599 20210609 profile B final.sldm	



Material Name	Color	Unit Weight (kN/m <sup>3</sup> )	Strength Type	Cohesion (kPa)	Phi (deg)	Water Surface	Hu Type	Hu
Fill	Grey	20	Mohr-Coulomb	3	28	Water Surface	Custom	1
KKVG Residual	Red	18	Mohr-Coulomb	5	30	Water Surface	Custom	1
WG Residual Soil	Yellow	18	Mohr-Coulomb	7	32	Water Surface	Custom	1
WG CWR	Orange	19	Mohr-Coulomb	10	34	Water Surface	Custom	1
WG HWR	Brown	20	Mohr-Coulomb	20	34	Water Surface	Custom	1

1.177



Project	J14599 - Proposed Lot 2, 201 Kerikeri Road, Kerikeri		
Group	Possible Final Ground Conditions	Scenario	EGWL with leading edge piles
Drawn By	D.Simmonds	Company	VISION
Date	08/06/2021	File Name	14599 20210609 profile B final.sldm



**RECORD OF TITLE  
UNDER LAND TRANSFER ACT 2017  
FREEHOLD  
Search Copy**



  
R. W. Muir  
Registrar-General  
of Land

**Identifier** **1069822**  
**Land Registration District** **North Auckland**  
**Date Issued** 28 March 2023

**Prior References**  
NA10C/915

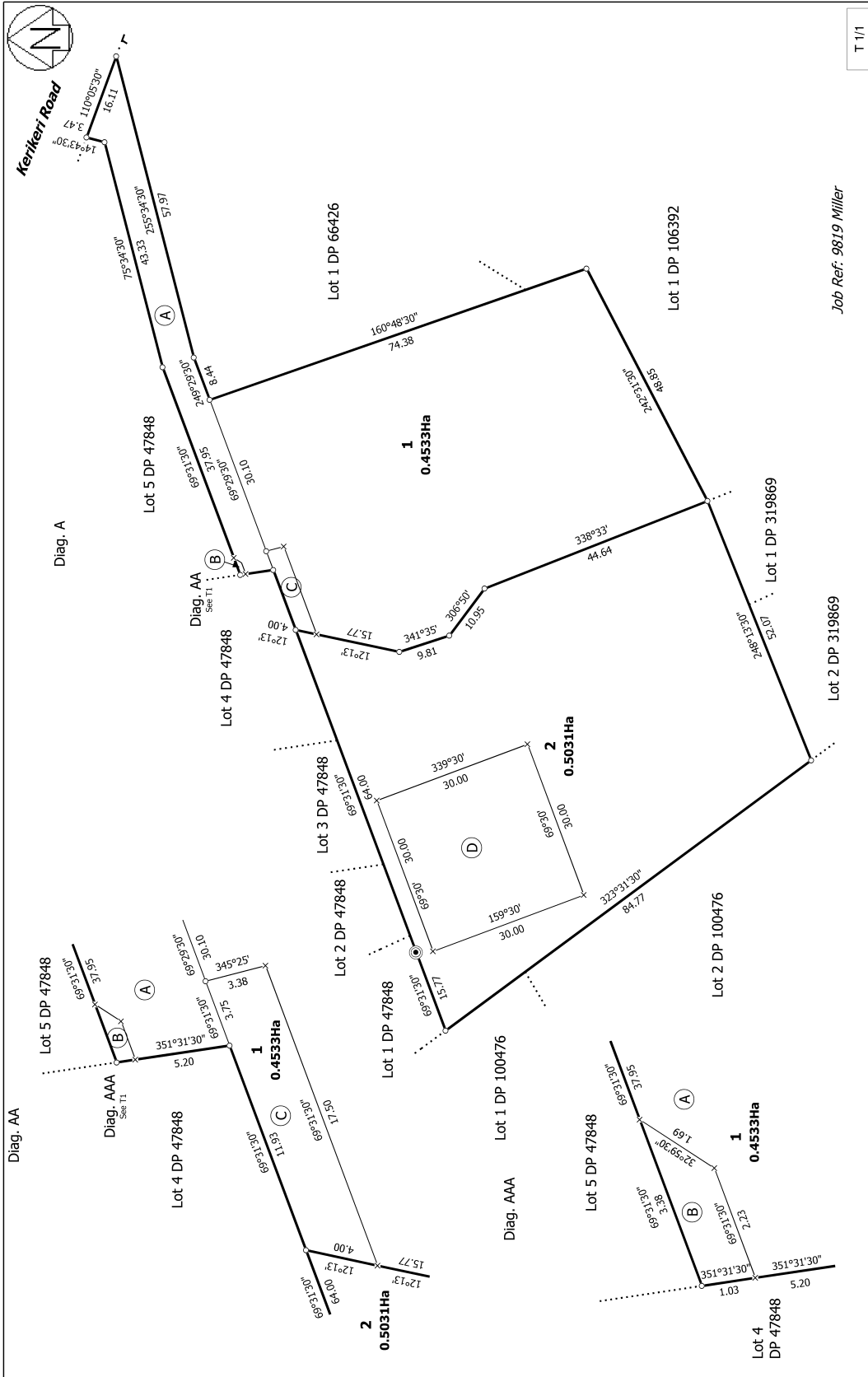
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**Estate** Fee Simple  
**Area** 5031 square metres more or less  
**Legal Description** Lot 2 Deposited Plan 578333  
**Registered Owners**  
Harry Orlando Miller

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**Interests**

Appurtenant hereto is a right of way created by Transfer A7176 - 12.5.1964 at 10:33 am  
The easements created by Transfer A7176 are subject to Section 37 (1) (a) Counties Amendment Act 1961  
Appurtenant hereto is a right of way created by Transfer A105373 - 23.9.1965 at 9:27 am  
The easements created by Transfer A105373 are subject to Section 37 (1) (a) Counties Amendment Act 1961  
Appurtenant hereto is a water right created by Transfer A105437 - 23.9.1965 at 10:40 am  
Appurtenant hereto is a right of way created by Transfer A122973 - 15.12.1965 at 1:55 pm  
The easements created by Transfer A122973 are subject to Section 37 (1) (a) Counties Amendment Act 1961  
Appurtenant hereto is a right of way created by Transfer A115461 - 15.12.1965 at 2:29 pm  
The easements created by Transfer A115461 are subject to Section 37 (1) (a) Counties Amendment Act 1961  
12649647.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 28.3.2023 at 3:54 pm  
Appurtenant hereto is a right of way and a right to convey electricity, telecommunications and water created by Easement Instrument 12649647.4 - 28.3.2023 at 3:54 pm  
The easements created by Easement Instrument 12649647.4 are subject to Section 243 (a) Resource Management Act 1991  
12772692.1 Variation of Consent Notice 12649647.2 pursuant to Section 221(5) Resource Management Act 1991 - 30.6.2023 at 2:15 pm  
13026566.1 Mortgage to Westpac New Zealand Limited - 4.6.2024 at 9:42 am



T 1/1	Job Ref: 9819 Miller
Surveyor: Antony Noel Worrall Firm: Thomson Survey Limited	Title Plan DP 578333 Deposited on: 28/03/2023
Lots 1 and 2 Being a Subdivision of Lot 6 DP 56648	
Land District: North Auckland	Digitally Generated Plan Generated on: 18/04/2023 4:13pm Page 3 of 3