



THOMSON
SURVEY
LIMITED

SURVEYORS AND RESOURCE
PLANNERS

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Background picture represents a New Zealand surveying trig station, used to beacon control survey marks

Office Use Only
Application Number:

APPLICATION FOR RESOURCE CONSENT OR FAST-TRACK RESOURCE CONSENT

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA))

(If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Form 9)

Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges – both available on the Council's web page.

1. Pre-Lodgement Meeting

Have you met with a Council Resource Consent representative to discuss this application prior to lodgement? Yes/No

2. Type of Consent being applied for (more than one circle can be ticked):

- Land Use Fast Track Land Use* Subdivision Discharge
 Extension of time (s.125) Change of conditions (s.127) Change of Consent Notice (s.221(3))
 Consent under National Environmental Standard (e.g. Assessing and Managing Contaminants in Soil)
 Other (please specify) _____

*The fast track for simple land use consents is restricted to consents with a controlled activity status and requires you provide an electronic address for service.

3. Would you like to opt out of the Fast Track Process?

Yes/No

4. Applicant Details:

Name/s: Andrew John Meale

Electronic Address for Service (E-mail):

Phone Numbers:

Work:

Home:

3 Siesta Terrace

Postal Address:

(or alternative method of service under section 352 of the Act)

Gulf Harbour

Whangaparaoa

0930

Post Code:

5. Address for Correspondence: Name and address for service and correspondence (if using an Agent write their details here).

Name/s: Lynley Newport; Thomson Survey Ltd

Electronic Address for Service (E-mail): lynley@tsurvey.co.nz

Phone Numbers:

Work: 4077360

Home:

Postal Address:

(or alternative method of service under section 352 of the Act)

P O Box 372

KERIKERI

Post Code: 0245

All correspondence will be sent by email in the first instance. Please advise us if you would prefer an alternative means of communication.

6. Details of Property Owner/s and Occupier/s: Name and Address of the Owner/Occupiers of the land to which this application relates (where there are multiple owners or occupiers please list on a separate sheet if required)

Name/s: Waihanga Okaihau Limited (A Meale, Director)

Property Address/ Location: 3 Siesta Terrace,
Gulf Harbour,
Whangaparaoa 0930

7. Application Site Details:

Location and/or Property Street Address of the proposed activity:

Site Address/ Location: 39 Settlers Way
Okaihau

Legal Description: Part Umuhapuku No 2 Block

Record of Title: NA739/178

Please remember to attach a copy of your Certificate of Title to the application, along with relevant consent notices and/or easements and encumbrances (search copy must be less than 6 months old)

Site Visit Requirements:

Is there a locked gate or security system restricting access by Council staff? No
Is there a dog on the property? No

Please provide details of any other entry restrictions that Council staff should be aware of, e.g. health and safety, caretaker's details. **This is important to avoid a wasted trip and having to re-arrange a second visit.**

The house on the property is tenanted, please phone the property managers, Mid-North Real Estate,

On 09-4010895 at least 24 hours in advance of any site visit, so they can notify the tenants

8. Description of the Proposal:

Please enter a brief description of the proposal here. Attach a detailed description of the proposed activity and drawings (to a recognized scale, e.g. 1:100) to illustrate your proposal. Please refer to Chapter 4 of the District Plan, and Guidance Notes, for further details of information requirements.

Subdivision to create one additional lot in the Residential Zone.

If this is an application for an Extension of Time (s.125); Change of Consent Conditions (s.127) or Change or Cancellation of Consent Notice conditions (s.221(3)), please quote relevant existing Resource Consents and Consent Notice identifiers and provide details of the change(s) or extension being sought, with reasons for requesting them.

9. Would you like to request Public Notification? Yes/No

10. Other Consent required/being applied for under different legislation (more than one circle can be ticked):

- Building Consent (BC ref # if known) Regional Council Consent (ref # if known)
- National Environmental Standard consent Other (please specify)

11. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health:

The site and proposal may be subject to the above NES. In order to determine whether regard needs to be had to the NES please answer the following (further information in regard to this NES is available on the Council's planning web pages):

Is the piece of land currently being used or has it historically ever been known used for an activity or industry on the Hazardous Industries and Activities List (HAIL) yes no don't

Is the proposed activity an activity covered by the NES? (If the activity is known any of the activities listed below, then you need to tick the 'yes' circle). yes no don't

- Subdividing land Changing the use of a piece of land
- Disturbing, removing or sampling soil Removing or replacing a fuel storage system

12. Assessment of Environmental Effects:

Every application for resource consent must be accompanied by an Assessment of Environmental Effects (AEE). This is a requirement of Schedule 4 of the Resource Management Act 1991 and an application can be rejected if an adequate AEE is not provided. The information in an AEE must be specified in sufficient detail to satisfy the purpose for which it is required. Your AEE may include additional information such as Written Approvals from adjoining property owners, or affected parties.

Please see attached AEE.

13. Billing Details:

This identifies the person or entity that will be responsible for paying any invoices or receiving any refunds associated with processing this resource consent. Please also refer to Council's Fees and Charges Schedule.

Name/s: (please write all names in full)

Email:

Postal Address:

Phone Numbers:

Fax:

Fees Information: An instalment fee for processing this application is payable at the time of lodgement and must accompany your application in order for it to be lodged. Please note that if the instalment fee is insufficient to cover the actual and reasonable costs of work undertaken to process the application you will be required to pay any additional costs. Invoiced amounts are payable by the 20th of the month following invoice date. You may also be required to make additional payments if your application requires notification.

Declaration concerning Payment of Fees: I/we understand that the Council may charge me/us for all costs actually and reasonably incurred in processing this application. Subject to my/our rights under Sections 357B and 358 of the RMA, to object to any costs, I/we undertake to pay all and future processing costs incurred by the Council. Without limiting the Far North District Council's legal rights if any steps (including the use of debt collection agencies) are necessary to recover unpaid processing costs I/we agree to pay all costs of recovering those processing costs. If this application is made on behalf of a trust (private or family), a society (incorporated or unincorporated) or a company in signing this application I/we are binding the trust, society or company to pay all the above costs and guaranteeing to pay all the above costs in my/our personal capacity.

Signature of bill payer – **mandatory**) Date: 05/06/2024

14. Important Information:

Note to applicant

You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.

You may apply for 2 or more resource consents that are needed for the same activity on the same form.

You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

Fast-track application

Under the fast-track resource consent process, notice of the decision must be given within 10 working days after the date the application was first lodged with the authority, unless the applicant opts out of that process at the time of lodgement. A fast-track application may cease to be a fast-track application under section 87AAC(2) of the RMA.

Privacy Information:

Once this application is lodged with the Council it becomes public information. Please advise Council if there is sensitive information in the proposal. The information you have provided on this form is required so that your application for consent pursuant to the Resource Management Act 1991 can be processed under that Act. The information will be stored on a public register and held by the Far North District Council. The details of your application may also be made available to the public on the Council's website, www.fndc.govt.nz. These details are collected to inform the general public and community groups about all consents which have been issued through the Far North District Council.

Declaration: The information I have supplied with this application is true and complete to the best of my knowledge.

Name: Andrew Meale (please print)

Signature:  (signature)

Date: 05/06/2024

(A signature is not required if the application is made by electronic means)

Checklist (please tick if information is provided)

- Payment (cheques payable to Far North District Council)
- A current Certificate of Title (Search Copy not more than 6 months old)
- Copies of any listed encumbrances, easements and/or consent notices relevant to the application
- Applicant / Agent / Property Owner / Bill Payer details provided
- Location of property and description of proposal
- Assessment of Environmental Effects
- Written Approvals / correspondence from consulted parties
- Reports from technical experts (if required)
- Copies of other relevant consents associated with this application
- Location and Site plans (land use) AND/OR
- Location and Scheme Plan (subdivision)
- Elevations / Floor plans
- Topographical / contour plans

Please refer to Chapter 4 of the District Plan for details of the information that must be provided with an application. Please also refer to the RC Checklist available on the Council's website. This contains more helpful hints as to what information needs to be shown on plans.

Digital Applications may be submitted via E- mail to: Planning.Support@fndc.govt.nz

Only one copy of an application is required, but please note for copying and scanning purposes, documentation should be:

UNBOUND

SINGLE SIDED

NO LARGER THAN A3 in SIZE

Waihanga Okaihau Limited
PROPOSED SUBDIVISION

requiring consent pursuant to the

Far North District Plan

39 Settlers Way, Okaihau

**PLANNING REPORT AND ASSESSMENT
OF ENVIRONMENTAL EFFECTS**

Thomson Survey Ltd
Kerikeri

1.0 INTRODUCTION

1.1 The Proposal

The applicant proposes to carry out a subdivision of their property at 39 Settlers Way, Okaihau, to create two residential allotments (one additional). Lot 1 is proposed to be 1121m² in area and is vacant land. Lot 2 is proposed to be 1130m² in area and contains all the existing built development on the property – two storey house and shed.

Access to the existing house will remain unchanged. It is proposed to create easement and form new driveway access along Lot 2's north eastern boundary to service the proposed vacant rear lot.

The proposal involves land in the same ownership and adjacent to the application site insofar as the applicant proposes wastewater treatment and disposal to that adjacent site as opposed to retaining disposal within Lot 1 or 2 boundaries. A Site Feasibility Appraisal supports the application and confirms that a system suitable for the discharge from two residential units can be accommodated within that adjacent land, in compliance with Regional Plan permitted activity standards. The appropriate easements will be put in place.

The proposed scheme plan(s) is/are attached in Appendix 1 and a location map is attached in Appendix 2.

Refer to section 5 of this report for details in regard to rule breaches and reasons for the application.

1.2 Scope of this Report

This assessment and report accompanies the Resource Consent Application and is provided in accordance with Section 88 and Schedule 4 of the Resource Management Act 1991. The application seeks consent under the District Plan for a subdivision as a non complying activity – refer to section 5.0 Activity Status. The name and address of the owner of the property is contained in the Form 9 Application form.

2.0 PROPERTY DETAILS

Subdivision property

Location:	39 Settlers Way, Okaihau
Legal description:	Lot 1 DP 29956 Drainage Easement to be over adjacent Lot 1 DP 579128
Record of Title:	NA739/178; 2251m ² in area; with Drainage Easement over Record of Title 1074247 (copies of both titles attached in Appendix 3).

3.0 SITE DESCRIPTION

3.1 Site characteristics.

The site is located on Settlers Way, Okaihau. It is semi-serviced in that it has frontage to a Council public road, and it has power and is connected to the Okaihau reticulated water supply. The town has no reticulated wastewater system and properties in the town are therefore reliant on on-site wastewater treatment and disposal.

Built development within the site consists of a square shaped two storey dwelling, associated shed, and existing driveway off Settlers Way. The entire rear portion of the site is vacant and it is within this vacant area that it is proposed to locate Lot 1.

The site is generally flat and level at its southern end where the existing dwelling is located, before gently sloping to the north over the land in Lot 1. The site is generally in lawn (other than existing buildings), with one tree (Norfolk pine) within proposed easement alignment, but very little other on-site vegetation, except around boundaries.

The property is zoned Residential in the Operative District Plan (ODP) and Settlement in the Proposed District Plan (PDP). The adjacent site within which it is proposed to accommodate the wastewater disposal area, is zoned Rural Production in both the ODP and PDP. The site being subdivided is not mapped in either plan as having any resource or feature overlay. The site is not mapped as being prone to any hazard.

3.2 Legal Interests

The principal application site has no legal interests. The site that is proposed to accommodate drainage easement and the wastewater treatment and disposal area has several legal interests. These include Consent Notice 11229680.2, registered in 2018. A copy of this is attached as part of Appendix 3 and any clauses relevant to land in Lot 1 DP 579128 will need to comply with those clauses on an ongoing basis. This is discussed in more detail in Section 5.3 of this report.

Consent Notice 11269184.3 was registered in 2019. There are four clauses within this Consent Notice that are relevant to any land in Lot 1 DP 579128 that was previously Lot 1 of DP 527697. Refer to Section 5.3 of this report.

3.3 Consent History

The principal application site has building consent history only. These include BP4008474, issued in 1972 for a 'basement flat'; and BP569160, issued in 1973 for a cover over a patio and carport.

The land over which drainage easement is proposed has no buildings, so no building consent history. It has been part of balance Rural Production zoned land resulting from a residential subdivision of adjacent property with access off Hulme Drive. The latest of subdivision, RC 2220032 (and which created DP 579128) was issued in October 2021 and was a boundary adjustment carried out by the applicant in order that land in Lot 1 DP 579128 could have street frontage to Settlers Way.

4.0 SCHEDULE 4 – INFORMATION REQUIRED IN AN APPLICATION

Clauses 2 & 3: Information required in all applications

<i>(1) An application for a resource consent for an activity must include the following:</i>	
<i>(a) a description of the activity:</i>	Refer Sections 1.1 above and 5.0 of this Planning Report.
<i>(b) an assessment of the actual or potential effect on the environment of the activity:</i>	Refer to Section 6.0 of this Planning Report.
<i>(b) a description of the site at which the activity is to occur:</i>	Refer to Section 3.0 of this Planning Report.
<i>(c) the full name and address of each owner or occupier of the site:</i>	This information is contained in the Form 9 attached to the application.
<i>(d) a description of any other activities that are part of the proposal to which the application relates:</i>	Refer to Sections 3.0 and 5.0 of this Planning Report for existing activities within the site. The application is for subdivision pursuant to the Operative District Plan. The proposal includes the construction and ongoing operation of a wastewater treatment and disposal system, to service both proposed lots, and located on adjacent property (owned by applicant).
<i>(e) a description of any other resource</i>	No other consents are required other than that being applied

<i>consents required for the proposal to which the application relates:</i>	for pursuant to the Far North Operative District Plan. The Site Feasibility Appraisal report supporting the application confirms that no consent is required under the Regional Plan in terms of the effluent disposal system.
<i>(f) an assessment of the activity against the matters set out in Part 2:</i>	Refer to Section 7.3 of this Planning Report.
<p><i>(g) an assessment of the activity against any relevant provisions of a document referred to in section 104(1)(b), including matters in Clause (2):</i></p> <p><i>(a) any relevant objectives, policies, or rules in a document; and</i> <i>(b) any relevant requirements, conditions, or permissions in any rules in a document; and</i> <i>(c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).</i></p>	Refer to Sections 5.2, 7.1, 7.2, 7.4, 7.5 of this Planning Report.
<i>(3) An application must also include any of the following that apply:</i>	
<p><i>(a) if any permitted activity is part of the proposal to which the application relates, a description of the permitted activity that demonstrates that it complies with the requirements, conditions, and permissions for the permitted activity (so that a resource consent is not required for that activity under section 87A(1)):</i></p> <p><i>(b) if the application is affected by section 124 or 165ZH(1)(c) (which relate to existing resource consents), an assessment of the value of the investment of the existing consent holder (for the purposes of section 104(2A)):</i></p> <p><i>(c) if the activity is to occur in an area within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011, an assessment of the activity against any resource management matters set out in that planning document (for the purposes of section 104(2B)).</i></p>	<p>Refer sections 3.0 and 5.0. The site supports a legally established residential dwelling.</p> <p>There is no existing resource consent. Not applicable.</p> <p>The site is not within an area subject to a customary marine title group. Not applicable.</p>

Clause 4: Additional information required in application for subdivision consent

<i>(4) An application for a subdivision consent must also include information that adequately defines the following:</i>	
<i>(a) the position of all new boundaries:</i>	Refer to Scheme Plans in Appendix 1.

<p>(b) the areas of all new allotments, unless the subdivision involves a cross lease, company lease, or unit plan: (c) the locations and areas of new reserves to be created, including any esplanade reserves and esplanade strips: (d) the locations and areas of any existing esplanade reserves, esplanade strips, and access strips: (e) the locations and areas of any part of the bed of a river or lake to be vested in a territorial authority under section 237A: (f) the locations and areas of any land within the coastal marine area (which is to become part of the common marine and coastal area under section 237A): (g) the locations and areas of land to be set aside as new roads.</p>	
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Clause 5: Additional information required for application for reclamation – not applicable.

Clause 6: Information required in assessment of environmental effects

<p>(1) An assessment of the activity's effects on the environment must include the following information:</p>	
<p>(a) if it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity:</p>	<p>Refer to Section 6.0 of this planning report. The activity will not result in any significant adverse effect on the environment.</p>
<p>(b) an assessment of the actual or potential effect on the environment of the activity:</p>	<p>Refer to Section 6.0 of this planning report.</p>
<p>(c) if the activity includes the use of hazardous installations, an assessment of any risks to the environment that are likely to arise from such use:</p>	<p>Not applicable as the application does not involve hazardous installations.</p>
<p>(d) if the activity includes the discharge of any contaminant, a description of— (i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and (ii) any possible alternative methods of discharge, including discharge into any other receiving environment:</p>	<p>The subdivision does not involve any discharge of contaminant.</p>
<p>(e) a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect:</p>	<p>Refer to Section 6.0 of this planning report.</p>

<i>(f) identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted:</i>	Refer to Section 8.0 of this planning report.
<i>(g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved:</i>	No monitoring is required as the scale and significance of effects does not warrant any.
<i>(h) if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).</i>	No protected customary right is affected.

Clause 7: Matters that must be addressed by assessment of environmental effects (RMA)

<i>(1) An assessment of the activity's effects on the environment must address the following matters:</i>	
<i>(a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects:</i>	Refer to Sections 6.0 and 8.0 of this planning report and also to the assessment of objectives and policies in Sections 7.1 and 7.2.
<i>(b) any physical effect on the locality, including any landscape and visual effects:</i>	Refer to Section 6.0. The proposed activity will have no adverse effects on the physical environment and landscape and visual amenity values.
<i>(c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity:</i>	Refer to Section 6.0. The proposal will result in no adverse effects in regard to habitat and ecosystems.
<i>(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations:</i>	Refer to Section 6.0, and above comments
<i>(e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants:</i>	The subdivision will not result in the discharge of contaminants, nor any unreasonable emission of noise.
<i>(f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.</i>	The subdivision site is not subject to natural hazards and does not involve hazardous installations.

5.0 ACTIVITY STATUS

5.1 Operative District Plan

The property is zoned Residential and is an unsewered site (by definition). No Resource features apply. The controlled activity minimum lot size in the Residential Zone for an unsewered site is 3000m², with the discretionary activity threshold at 2000m². Both lots are smaller than 2000m² and the activity is therefore a **non complying** subdivision activity.

Other relevant Zone Rules:

7.6.5.1.2 Residential Intensity – the existing dwelling will be in one lot, with the other vacant.

7.6.5.1.4 Building Height – the existing building on Lot 2 is double storey and, based on the approved building plans, is under 8m in height.

7.6.5.1.5 Sunlight – existing dwelling is centralised within the site and does not breach any Sunlight plane.

7.6.5.1.6 Stormwater Management – permitted threshold of 50%. Estimated impermeable surface coverage (taken from aerial imagery) is 325m². This is less than 50% of proposed Lot 2's area. New driveway will be required over easement A within Lot 2, adding an estimated 132m² impermeable coverage. Adding this to the existing coverage = 457m², still less than 50% of the permitted threshold (565m²). No consent is being sought to breach the stormwater management permitted activity threshold for Lot 2, and none is required for future development within Lot 1 either, noting a permitted threshold of 560m².

7.6.5.1.7 Setback from Boundaries – the buildings to be in Lot 2 are well away from any proposed new boundary.

7.6.5.1.17 Building Coverage – Existing building coverage to be within Lot 2 is less than the permitted 45% of proposed lot area and a future building to be within Lot 1 will also be able to comply with the permitted threshold.

District Wide Rules:

12.3.6.1.2 Excavation and/or Filling – Zone provides for up to 200m³ in any 12 month period. This will not be exceeded by any site works. There will be no cut/fill face higher than 1.5m.

The site contains nothing to which Chapters 12.1, 12.2, 12.4, 12.5, or 12.7 relate to. The activity does not involve Hazardous Facilities or Storage.

Rules in Chapter 15.1 Traffic, Parking and Access:

There will be no change to existing access for Lot 2. A new single width urban crossing will be required for the proposed rear Lot 1. Appendix 3B-1 Standards for Private Access applies. This has no legal width requirement for a single household equivalent, but does require 3m carriageway width. This is to be accommodated within the proposed ROW over Lot 2.

Both lots can readily accommodate the required two car parking spaces.

The existing and proposed new accessway and crossing is / will be on reasonably level ground and can be constructed in compliance with Rules 15.1.6C.1.1 - 1.3 inclusive and 15.1.6C.1.6. The new crossing will not be over footpath. Rule 15.1.6C.1.4 provides for two crossings per site (complies) and the crossing to be 6m wide or less (complies).

5.2 Proposed District Plan (PDP) Assessment

Under the PDP, the property is proposed to be part of the Settlement Zone. I have examined the Settlement Zone rules and none have legal effect.

In regard to district wide considerations in the PDP, the only rules in the Subdivision chapter that are marked as having immediate legal effect are those pertaining to Environmental Benefit Subdivisions (not applicable in this instance); Subdivision of a site within a heritage area overlay (again not applicable); Subdivision of a site that contains a scheduled heritage resource (again not applicable); Subdivision of a site containing a scheduled site and area of significance to Maori (not applicable); and Subdivision of a site containing a scheduled SNA (not applicable).

There are two earthworks rules and associated standards relating to observance of the ADP, and G05 Erosion and Sediment Control standards. Compliance can be achieved via conditions of consent, albeit minimal earthworks will be required for site works. Some vegetation clearance may be required in order to construct the proposed wastewater disposal areas, and to provide access for maintenance purposes. However it is believed this can occur within the thresholds of the PDP given that any such vegetation is in a Rural Production zoned site and the area/amount of indigenous vegetation clearance required is minimal (and not all indigenous in any event).

In summary, I have not identified any rules in the PDP that have immediate legal effect and must therefore be considered in determining activity status for this proposal.

5.3 Compliance with Consent Notices

Consent Notice 11229680.2, registered in 2018 is attached as part of Appendix 3 and any clauses relevant to land in Lot 1 DP 579128 will need to comply with those clauses on an ongoing basis. Clause (i) requires that any building or increase in impermeable surfaces shall not obstruct any area proposed as a secondary/overland flow path as identified on the revised subdivision scheme plan submitted to comply with condition 3(a) of RC 2180351. I have researched this information and can confirm that the proposed disposal and reserve areas do not lie within the secondary/overland flow path so defined. Clause (ii) relates to dwellings only; and Clause (iii) precludes a permanent vehicular access from being constructed off State Highway.

Consent Notice 11269184.3 was registered in 2019. There are four clauses within this Consent Notice that are relevant to any land in Lot 1 DP 579128 that was previously Lot 1 of DP 527697. The first requires the owner to maintain the stormwater control and mitigation system within easement E on DP 577697. This clause is not relevant because easement E does not fall within land that is now Lot 1 DP 579128.

The second clause states:

“In conjunction with the construction of any building which includes a wastewater treatment and effluent disposal system, the applicant shall submit for Council approval an Onsite Wastewater System Report prepared by a Chartered Professional Engineer or a Council approved Report Write. The report shall identify a suitable method of wastewater treatment for the proposed development along with an identified effluent disposal area plus a reserve disposal area and reference the Stormwater and Wastewater report dated April 2018 prepared by Haigh Workman Ltd, ref 18-025 and submitted with RC 2180639.”

Strictly speaking the construction of any building is restricted to land at 39 Settlers Way with only the disposal area on land affected by this consent notice. In any event, the Haigh Workman Report provided as part of RC 2180639 did not assess or comment on any land other than that zoned Residential, so does not cover land in Lot 1 DP 579128.

Two other clauses relevant to Lot 1 DP 579128 relate to dwellings only and are not relevant.

6.0 ASSESSMENT OF ENVIRONMENTAL EFFECTS

6.1 Allotment Sizes and Dimensions

Proposed Lot 2 contains existing built environment. Proposed Lot 1 is reasonably large at 1121m². Neither lot requires land use consent to accommodate impermeable surfaces or building coverage and buildings can readily comply with setback and sunlight rules. Both lots can accommodate a 14m x 14m square building envelope. What makes this proposal unique is the proposal to take on-site treated wastewater disposal off site, meaning the lots do not have to be the expansive size required for any unsewered sites' disposal areas. In summary, both proposed lots are considered appropriate for their intended use.

6.2 Natural and Other Hazards

The site is not mapped as being within any flood hazard area (NRC's On Line Maps; FNDC's Proposed District Plan maps). The Site Feasibility Appraisal supporting this application confirms no hazard risk from erosion; falling debris; subsidence; inundation or slippage. The appraisal also assesses only low risk of slope instability. In summary I have not identified any s106 matter that would preclude the proposed subdivision and further development of the site from occurring.

6.3 Water Supply

The application site has connection to town supply and that connection will remain for the existing building to be within the front lot. It is not intended to apply for any additional connection for the proposed additional lot. Instead the back lot will be reliant on roof catchment to tank for its potable and fire fighting water supply. The Council can impose its standard consent notice in this regard.

6.4 Energy Supply & Telecommunications

The site is serviced by reticulated power. Consultation has been carried out with both Chorus and Top Energy who have confirmed availability of services for an additional lot – refer to Appendix 4 for Top Energy's written confirmation. Chorus has confirmed availability of fibre, but at an excessive cost that cannot be justified with the creation of only one additional lot. It is assumed that copper wire connection would be available, however it is the preference of the applicant that the additional lot not be required to connect to a land based system and instead be able to rely on cellular and internet telecommunications. Cellular coverage is good in Okaihau.

6.5 Stormwater Management and Disposal

A comprehensive Site Feasibility Appraisal by Gumboots Consulting Engineers supports this application – refer to Appendix 5. This addresses stormwater management in its Section 19 and concludes that "any adverse effects as a result of future residential dwellings to be erected within the nominated areas of these proposed lots are considered less than minor". The Appraisal recommends that site specific analysis of post development against pre development conditions for the proposed lots be accounted for at building consent stage. As with any building consent work, on-site stormwater management is to be carried out in accordance with Clause E1 of the building code compliance documents.

The Appraisal assessment is based on 'typical' on lot impermeable surface coverage of 32% and 29% coverage for Lots 1 & 2 respectively. Stormwater runoff from future roof areas on Lot 1 will be collected to water tanks for domestic water supply. Overflow from water tanks shall be discharged in a dispersive manner well away from buildings with no ground scour resulting. Stormwater from future driveway and parking/manoeuvring areas on the lots will be channelled towards the valleys or along the natural flow paths within the respective allotments.

The Appraisal utilises Section 13.10.4 assessment criteria to assess the effects of stormwater management – refer the Appraisal's Section 22.

6.6 Sanitary Sewage Disposal

The property is not serviced by any Council reticulated system. The existing lot has an on-site system with disposal trenches at the rear (north) of the house, running south to north longitudinally through proposed Lot 1's area. This disposal system is proposed to be dis-established in favour of utilisation of the proposed new disposal area on the adjacent down slope Lot 1 DP 579128. Proposed Lot 1's wastewater will similarly be disposed of off-site to Lot 1 DP 579128, which will be subject to the necessary drainage easement – refer to Scheme Plan.

With regard to the existing disposal field within Lot 1, and to be dis-established, it is understood that domestic septic tank discharge is excluded under G5 in regards to HAIL (NES for Assessing and Managing Contaminants in Soil to Protect Human Health (NES CS)). The authors of the Appraisal have advised that it is their understanding that the ground in the area of the dis-established disposal field shall not be disturbed and therefore there is no risk. From their site investigations, it was observed that there is an element of capping clay over the trench. It is, however, important that subsequent owners of the land are aware that the

field exists and its location noted, so they can make provisions for handling the soils where activities encroach into this space.

In regard to the new proposed system, the Appraisal assesses this against the Regional Plan for Northland, permitted rules C.6.1.3. The Appraisal states that the volume of wastewater discharged will not exceed two cubic metres per day per property; the slope of the disposal area is not to exceed 25 degrees; and that special provisions are to apply to disposal area slopes greater than 10 degrees. The disposal field will meet the minimum separation distances from watercourses and boundaries as laid out in C.6.1.3. If required, the disposal fields will be mounded in order to meet requirements for groundwater separation.

An easement is created over Lot 1 in favour of Lot 2 for drainage to the proposed disposal area, with both lots having drainage easement over the lot accommodating the fields (Lot 1 DP 579128).

The Appraisal concludes there is sufficient land area available for land application of effluent disposal via a dripline system (plus 100% reserve area) on Lot 1 DP 579128 (referred to in the Appraisal as Lot 1 of Subdivision of Lot 1 DP 527697 – which is the same land). The Appraisal shows two side by side disposal areas for Lots 1 and 2 on the scheme plan.

The Appraisal uses the ODP's 13.10.5 assessment criteria in Section 29 of that Appraisal.

6.7 Easements for any purpose

Refer to Scheme Plan(s) in Appendix 1. This shows right of way and service easements over Lot 2 to the proposed new Lot 1, from Settlers Way, as well as the required right to drain sewer and stormwater over B and right to drain sewer only over C on the scheme plan.

6.8 Property Access

Access is addressed in Section 4 of the Site Feasibility Appraisal in Appendix 5. The existing entrance into the site will remain for the existing dwelling to be in Lot 2. This is considered fit for purpose. A new crossing and right of way will serve Lot 1. This will be located along the eastern boundary. The crossing and right of way can be formed on acceptable gradient in accordance with ODP rules. The carriageway width within ROW A will be to FNDC standards. There is no requirement for passing bays. The crossing itself will be formed to the appropriate FNDC urban standard.

There is a Norfolk pine within the alignment of ROW A and this will require removal. This is exotic rather than indigenous so its removal does not require any consent under the ODP or PDP.

The Appraisal contains a full assessment against rules in Chapter 15.1 of the Plan and I have not repeated that in this planning report/AEE.

It should be noted that the land accommodating the disposal fields has frontage to both State Highway and Settlers Way. Therefore whilst that land is currently prevented from establishing a permanent crossing to State Highway, it can currently be accessed via Settlers Way over a portion of Lot 1 DP 579128 zoned Commercial (and Settlement in the PDP). Access for the purposes of works and maintenance associated with the disposal fields is readily achievable.

6.9 Effects of Earthworks

Very little earthworks will be required to give effect to the subdivision, restricted to crossing and ROW construction/upgrade only. Minimal earthworks associated with the construction/establishment of disposal fields on the adjacent lot are subject to rural zone thresholds and none should be breached. Cut/fill face heights are based on average height as opposed to being a set height. Earthworks will be subject to ADP requirements and GD05 Erosion and Sediment Control measures.

6.10 Building Locations

There are no constraints as to the location of a building within the vacant lot. A nominated (indicative) house site is assessed in the Site Feasibility Appraisal's Section 15. The vacant lot comprises gentle slopes descending northward towards the lower bushland on the adjacent site. Sufficient setback from the moderately steep bank a few meters beyond the property boundary to the north, can be provided for. Refer to the Annotations Report – Appendix A 1285/01, as part of the Appraisal.

A suspended floor on timber piles is the preferred foundation system/design (preferred by applicant). This will limit earthworks to minor amounts, to be retained on site. Where piles are in close proximity to the existing effluent trench (to be dis-established), design will need to comply with current FNDC Engineering Standards.

6.11 Preservation and enhancement of heritage resources (including cultural), vegetation, fauna and landscape, and land set aside for conservation purposes

The site being subdivided is zoned Residential in the ODP with no resource feature overlays. It contains no features mapped in the Regional Policy Statement as having any high or outstanding landscape or natural values and no mapped biodiversity wetlands. There is no land set aside for conservation purposes within the application site.

Vegetation/habitat

The application site contains no areas of significant indigenous vegetation or habitat. The site is in an urban location.

Fauna

The site is urban with no restrictions on cats or dogs on any titles in the area that I am aware of. No restriction on the keeping of cats or dogs on the lots is considered necessary.

Heritage/Cultural

There are no listed or mapped Sites of Significance to Maori on the application site, nor any historic buildings, sites, notable trees or archaeological sites as mapped and/or listed in the District Plan or Far North Maps. There are no waterbodies within the site or forming a site boundary.

6.12 Soil

The site is urban with no expectation to be utilised for productive use.

6.13 Access to, and protection of, waterbodies

There is no qualifying waterbody within the site or forming any boundary. The proposal will not adversely affect water quality.

6.14 Land use compatibility (reverse sensitivity)

The area is residential in nature. An additional residential unit in this location will not add to the risk of reverse sensitivity issues arising.

6.15 Proximity to Airports

The site is outside of any identified buffer area associated with the Bay of Islands Airport.

6.16 Natural Character of the Coastal Environment

The site is not within the Coastal Environment.

6.17 Energy Efficiency and renewable Energy Development/Use

A future lot owner may take the opportunity to install energy efficiency devices when they build.

6.18 National Grid Corridor

The National Grid does not run through the application site.

6.19 Effects on Character and Amenity

The character and amenity of Settlers Way is urban. In-fill development of the type being proposed will remain consistent with that character and amenity. The open space to built environment ratio will remain within permitted activity standards.

6.20 Other MattersCumulative Effect:

There will be a cumulative effect insofar as there will be an additional residential unit. However, the building coverage across the site will remain within permitted activity standards. The application site (zoned Residential) is one of only three remaining sites on the north side of Settlers Way in excess of 2000m² in area. The proposed lot sizes are well within the range of lot sizes within the immediate area, that range from 800m² to 2114m². The creation of two crossings per site is also a permitted activity. I do not believe the proposal will create adverse cumulative effects of a more than minor nature.

Precedent Effect:

The proposal is a non complying activity and precedent effects are a consideration in determining whether to grant consent. The aspect of this proposal that sets it apart from any

other, and therefore removes any risk of setting an adverse precedent, is the intention to take treated sewerage from both lots and dispose of this on an adjacent property (also owned by the applicant). This removes the need to provide for larger lot areas to accommodate disposal fields. In this sense, the lots can be more in the size range of sewered sites as opposed to unsewered sites.

7.0 STATUTORY ASSESSMENT

7.1 Operative District Plan Objectives and Policies

Objectives and policies relevant to this proposal are considered to be primarily those listed in Chapters 13 (Subdivision); and 7.6 (Residential Zone) of the Operative District Plan (ODP). These are listed and discussed below where relevant to this proposal.

Subdivision Objectives & Policies

Objectives

13.3.1 To provide for the subdivision of land in such a way as will be consistent with the purpose of the various zones in the Plan, and will promote the sustainable management of the natural and physical resources of the District, including airports and roads and the social, economic and cultural well being of people and communities

This is an enabling objective. The Residential Zone is identified and located in areas where medium and high density residential living is and will be the predominant use. The site is partially serviced in that it is connected to a Council reticulated water supply and has power connection. The sites are able to be provided with appropriate and sustainable wastewater treatment and disposal. The proposal represents sustainable management and will provide for affordable living within walking distance of amenities. I believe the proposal to be consistent with Objective 13.3.1.

13.3.2 To ensure that subdivision of land is appropriate and is carried out in a manner that does not compromise the life-supporting capacity of air, water, soil or ecosystems, and that any actual or potential adverse effects on the environment which result directly from subdivision, including reverse sensitivity effects and the creation or acceleration of natural hazards, are avoided, remedied or mitigated.

The Assessment of Environmental Effects, and supporting Site Feasibility Appraisal conclude that the proposed subdivision is appropriate for the site and that any actual or potential adverse effects can be avoided, remedied or mitigated. No reverse sensitivity effects will result from the subdivision and the site is not subject to any hazards.

Objectives 13.3.3 and 13.3.4 refer to outstanding landscapes or natural features; and scheduled heritage resources; and to land in the coastal environment. By proposing development on land that is none of these things, the proposal is consistent with these objectives as the proposal will not create any adverse effects on the values and character outlined in the two objectives.

13.3.5 To ensure that all new subdivisions provide a reticulated water supply and/or on-site water storage and include storm water management sufficient to meet the needs of the activities that will establish all year round.

Proposed Subdivision

The existing dwelling is serviced with reticulated water and it is proposed that the additional lot be serviced by on-site water storage. Both lots can be serviced with appropriate stormwater management.

13.3.6 To encourage innovative development and integrated management of effects between subdivision and land use which results in superior outcomes to more traditional forms of subdivision, use and development, for example the protection, enhancement and restoration of areas and features which have particular value or may have been compromised by past land management practices.

This objective is likely intended to encourage Management Plan applications, and does not have a lot of relevance to this proposal.

13.3.7 To ensure the relationship between Maori and their ancestral lands, water, sites, wahi tapu and other taonga is recognised and provided for.

And related Policy

13.4.11 That subdivision recognises and provides for the relationship of Maori and their culture and traditions, with their ancestral lands, water, sites, waahi tapu and other taonga and shall take into account the principles of the Treaty of Waitangi.

The site is not known to contain any sites of cultural significance to Maori, or wahi tapu. The site does not include or adjoin any waterbody. The subdivision creates an additional lot in an existing urban area. I do not believe that the proposal adversely impacts on the ability of Maori to maintain their relationship with ancestral lands, water, sites, wahi tapu and other taonga.

13.3.8 To ensure that all new subdivision provides an electricity supply sufficient to meet the needs of the activities that will establish on the new lots created.

Power can be provided to lot boundary.

13.3.9 To ensure, to the greatest extent possible, that all new subdivision supports energy efficient design through appropriate site layout and orientation in order to maximise the ability to provide light, heating, ventilation and cooling through passive design strategies for any buildings developed on the site(s).

13.3.10 To ensure that the design of all new subdivision promotes efficient provision of infrastructure, including access to alternative transport options, communications and local services.

A future lot owner will have sufficient scope within the site to include energy efficiencies within their individual home designs, via active means such as solar panels, or passive design strategies such as sky lights and orientation.

The subdivision is close to town amenities.

Objective 13.3.11 is not discussed further as there is no National Grid on or near the subject site.

Policies

13.4.1 That the sizes, dimensions and distribution of allotments created through the subdivision process be determined with regard to the potential effects including cumulative effects, of the use of those allotments on:

(a) natural character, particularly of the coastal environment;

- (b) ecological values;*
- (c) landscape values;*
- (d) amenity values;*
- (e) cultural values;*
- (f) heritage values; and*
- (g) existing land uses.*

The values outlined above, along with existing uses, have been discussed earlier in this report.

13.4.2 That standards be imposed upon the subdivision of land to require safe and effective vehicular and pedestrian access to new properties. And

13.4.5 That access to, and servicing of, the new allotments be provided for in such a way as will avoid, remedy or mitigate any adverse effects on neighbouring property, public roads (including State Highways), and the natural and physical resources of the site caused by silt runoff, traffic, excavation and filling and removal of vegetation.

Access to the site is off an existing public road (sealed), and either already is, or can be, formed to the required standard. Subdivision site works will be minimal and no site contouring is required as part of the actual subdivision works.

13.4.3 That natural and other hazards be taken into account in the design and location of any subdivision.

The site is not subject to any hazard that might impact on the future development of the proposed additional lot.

13.4.4 That in any subdivision where provision is made for connection to utility services, the potential adverse visual impacts of these services are avoided.

It is envisaged that internal to the site, utility services will be underground.

13.4.6 That any subdivision proposal provides for the protection, restoration and enhancement of heritage resources, areas of significant indigenous vegetation and significant habitats of indigenous fauna, threatened species, the natural character of the coastal environment and riparian margins, and outstanding landscapes and natural features where appropriate.

The site is not known to contain any of the natural and physical resources listed in 13.4.6.

Policy 13.4.7 is not discussed as this relates to carparking associated with non residential activities (not relevant) or esplanade areas, none of which are required or considered necessary.

13.4.8 That the provision of water storage be taken into account in the design of any subdivision.

This is discussed earlier.

Policies 13.4.9 and 13.4.10 are not discussed further. The former relates to bonus development donor and recipient areas, which are not contemplated in this proposal; whilst the latter only applies to subdivision in the Conservation Zone.

13.4.12 That more intensive, innovative development and subdivision which recognises specific site characteristics is provided for through the management plan rule where this will result in superior environmental outcomes.

The application is not lodged as a Management Plan application.

13.4.13 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the applicable zone in regards to **S6 matters**. In addition subdivision, use and development shall avoid adverse effects as far as practicable by using techniques including:

(a) clustering or grouping development within areas where there is the least impact on natural character and its elements such as indigenous vegetation, landforms, rivers, streams and wetlands, and coherent natural patterns;

(b) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land and the coastal marine area;

(c) providing for, through siting of buildings and development and design of subdivisions, legal public right of access to and use of the foreshore and any esplanade areas;

(d) through siting of buildings and development, design of subdivisions, and provision of access that recognise and provide for the relationship of Maori with their culture, traditions and taonga including concepts of mauri, tapu, mana, wehi and karakia and the important contribution Maori culture makes to the character of the District (refer Chapter 2 and in particular Section 2.5 and Council's "Tangata Whenua Values and Perspectives" (2004));

(e) providing planting of indigenous vegetation in a way that links existing habitats of indigenous fauna and provides the opportunity for the extension, enhancement or creation of habitats for indigenous fauna, including mechanisms to exclude pests;

(f) protecting historic heritage through the siting of buildings and development and design of subdivisions.

(g) achieving hydraulic neutrality and ensuring that natural hazards will not be exacerbated or induced through the siting and design of buildings and development.

S6 matters (National Importance) are addressed later in this report.

In addition:

(a) The proposal is within an urban area with residential character.

(b) The proposal has little impact on natural character, indigenous vegetation, landforms, rivers, streams or wetlands.

(c) The site is not in the coastal environment.

(d) The site does not adjoin any stream or river. No public access is required.

(e) The proposal is not believed to negatively impact on the relationship of Maori with their culture.

(f) There are no existing significant habitat or areas of significant indigenous vegetation.

(g) There are no identified heritage values.

(h) The site is not subject to natural hazards.

I consider the proposal to be consistent with Policy 13.4.13.

13.4.14 That the objectives and policies of the applicable environment and zone and relevant parts of Part 3 of the Plan will be taken into account when considering the intensity, design and layout of any subdivision.

The subdivision has had regard to the underlying zone's objectives and policies – see below.

13.4.15 That conditions be imposed upon the design of subdivision of land to require that the layout and orientation of all new lots and building platforms created include, as appropriate, provisions for achieving the following: (a) development of energy efficient buildings and structures; (b) reduced travel distances and private car usage; (c) encouragement of pedestrian and cycle use; (d) access to

alternative transport facilities; (e) domestic or community renewable electricity generation and renewable energy use

The new lot can readily provide for a house site with good access to sunlight and the ability to utilise energy efficiency measures. The site is close to transport networks.

Policy 13.4.16 is not considered relevant as it only relates to the National Grid.

In summary, I believe the proposal to be consistent with the above Objectives and Policies.

Residential Zone Objectives and Policies

Objectives:

7.6.3.1 To achieve the development of new residential areas at similar densities to those prevailing at present.

7.6.3.2 To enable development of a wide range of activities within residential areas where the effects are compatible with the effects of residential activity.

I believe the proposed subdivision to be capable of providing for development that will be in keeping with, and compatible with, the character and amenity of the area.

And policies

7.6.4.1 That the Residential Zone be applied to those parts of the District that are currently predominantly residential in form and character.

7.6.4.2 That the Residential Zone be applied to areas which are currently residential but where there is scope for new residential development.

7.6.4.3 That the Residential Zone be applied to areas where expansion would be sustainable in terms of its effects on the environment.

All of the above policies are applicable to the Council when determining zoning, and not to the individual property owner when developing their site.

7.6.4.4 That the Residential Zone provide for a range of housing types and forms of accommodation.

The additional vacant lot has few constraints in terms of where a future residential dwelling may be located. Policy 7.6.4.4 encourages a range of housing types and forms of accommodation, therefore a home can readily be accommodated on the additional lot.

7.6.4.5 That non-residential activities only be allowed to establish within residential areas where they will not detract from the existing residential environment.

7.6.4.6 That activities with net effects that exceed those of a typical single residential unit, be required to avoid, remedy or mitigate those effects with respect to the ecological and amenity values and general peaceful enjoyment of adjacent residential activities.

The above two policies are not relevant as this is a subdivision application and not seeking any non residential use requiring land use.

7.6.4.7 That residential activities have sufficient land associated with each household unit to provide for outdoor space, planting, parking and manoeuvring.

7.6.4.8 That the portion of a site or of a development that is covered in buildings and other impermeable surfaces be limited so as to provide open space around buildings to enable planting, and to reduce adverse hydrological, ecological and amenity effects.

7.6.4.9 That sites have adequate access to sunlight and daylight.

7.6.4.10 That provision be made to ensure a reasonable level of privacy for inhabitants of buildings on a site.

These matters have been addressed in the AEE. At least 50% of the new lot will be left permeable and 55% left without building coverage. There will be ample boundary setback and the permitted sunlight plane can readily be achieved. The existing house does not breach the sunlight or setback rule on the new proposed lot's boundary.

7.2 Proposed District Plan Objectives and Policies

PDP Subdivision Objectives:

SUB-O1 Subdivision results in the efficient use of land, which:

- a. achieves the objectives of each relevant zone, overlays and district wide provisions;
- b. contributes to the local character and sense of place;
- c. avoids reverse sensitivity issues that would prevent or adversely affect activities already established on land from continuing to operate;
- d. avoids land use patterns which would prevent land from achieving the objectives and policies of the zone in which it is located;
- e. does not increase risk from natural hazards or risks are mitigated and existing risks reduced; and
- f. manages adverse effects on the environment.

SUB-O2 Subdivision provides for the:

- a. Protection of highly productive land; and
- b. Protection, restoration or enhancement of Outstanding Natural Features, Outstanding Natural Landscapes, Natural Character of the Coastal Environment, Areas of High Natural Character, Outstanding Natural Character, wetland, lake and river margins, Significant Natural Areas, Sites and Areas of Significance to Māori, and Historic Heritage.

SUB-O3 Infrastructure is planned to service the proposed subdivision and development where:

- a. there is existing infrastructure connection, infrastructure should be provided in an integrated, efficient, coordinated and future-proofed manner at the time of subdivision; and
- b. where no existing connection is available infrastructure should be planned and consideration be given to connections with the wider infrastructure network.

SUB-O4

Subdivision is accessible, connected, and integrated with the surrounding environment and provides for:

- a. public open spaces;
- b. esplanade where land adjoins the coastal marine area; and
- c. esplanade where land adjoins other qualifying water bodies.

The subdivision results in the efficient use of land and achieves the objectives of the zone. It contributes to the local character and sense of place and reverse sensitivity issues are not increased. The subdivision does not increase the risk from natural hazards, because there are none, and manages adverse effects (SUB-O1). The site and surrounding area is no longer utilised for productive purposes and is not zoned for productive use, so the subdivision has no need to protect such land. The site contains none of the items listed in SUB-O2(b).

The site is connected to Council water supply, and has power (SUB-O3). The subdivision creates lots that are accessible, connected and integrated with the surrounding

environment. The site is close to public open spaces. There are no qualifying water bodies that require esplanade (SUB-O4).

SUB-P1 Enable boundary adjustments that:

a. do not alter:

- i. the degree of non compliance with District Plan rules and standards;
- ii. the number and location of any access; and
- iii. the number of certificates of title; and

b. are in accordance with the minimum lot sizes of the zone and comply with access, infrastructure and esplanade provisions.

Not relevant – application is not a boundary adjustment.

SUB-P2 Enable subdivision for the purpose of public works, infrastructure, reserves or access.

Not relevant – application does not involve public works, infrastructure, reserves or access lots.

SUB-P3 Provide for subdivision where it results in allotments that:

- a. are consistent with the purpose, characteristics and qualities of the zone;
- b. comply with the minimum allotment sizes for each zone;
- c. have an adequate size and appropriate shape to contain a building platform; and
- d. have legal and physical access.

The lots are consistent with the purpose, characteristics and qualities of the zone. They are of adequate size to contain a building platform and have legal and physical access. The PDP's Settlement Zone provides for the same minimum lot sizes as the ODP's residential zone's unsewered site. However, the PDP's minimum lot sizes are yet to have any legal effect.

SUB-P4

Manage subdivision of land as detailed in the district wide, natural environment values, historical and cultural values and hazard and risks sections of the plan

The site contains no waterbodies, areas of biodiversity, historical or cultural values or hazards.

SUB-P5

Manage subdivision design and layout in the General Residential, Mixed Use and Settlement zoneto provide for safe, connected and accessible environments by:

- a. minimising vehicle crossings that could affect the safety and efficiency of the current and future transport network;
- b. avoid cul-de-sac development unless the site or the topography prevents future public access and connections;
- c. providing for development that encourages social interaction, neighbourhood cohesion, a sense of place and is well connected to public spaces;
- d. contributing to a well connected transport network that safeguards future roading connections; and
- e. maximising accessibility, connectivity by creating walkways, cycleways and an interconnected transport network.

Whilst a second crossing to road frontage is proposed, this does not, in my opinion adversely affect the safety and efficiency of the transport network.

SUB-P6 Require infrastructure to be provided in an integrated and comprehensive manner by:

- a. demonstrating that the subdivision will be appropriately serviced and integrated with existing and planned infrastructure if available; and
- b. ensuring that the infrastructure is provided is in accordance the purpose, characteristics and qualities of the zone.

The sites are / will be adequately serviced.

SUB- P7

Require the vesting of esplanade reserves when subdividing land adjoining the coast or other qualifying water bodies.

The site does not adjoin any waterbody.

SUB-P8 Avoid rural lifestyle subdivision in the Rural Production zone unless the subdivision:

Site being subdivided is not zoned Rural Production.

SUB-P9

Avoid subdivision [sic] rural lifestyle subdivision in the Rural Production zone and Rural residential subdivision in the Rural Lifestyle zone unless the development achieves the environmental outcomes required in the management plan subdivision rule.

The site being subdivided is not zoned either Rural Production or Rural Lifestyle and the subdivision is not a Management Plan.

SUB-P10

To protect amenity and character by avoiding the subdivision of minor residential units from principal residential units where resultant allotments do not comply with minimum allotment size and residential density.

Not applicable. There no minor residential units.

SUB-P11

Manage subdivision to address the effects of the activity requiring resource consent including (but not limited to) consideration of the following matters where relevant to the application:

- a. consistency with the scale, density, design and character of the environment and purpose of the zone;
- b. the location, scale and design of buildings and structures;
- c. the adequacy and capacity of available or programmed development infrastructure to accommodate the proposed activity; or the capacity of the site to cater for on-site infrastructure associated with the proposed activity;
- d. managing natural hazards;
- e. Any adverse effects on areas with historic heritage and cultural values, natural features and landscapes, natural character or indigenous biodiversity values; and
- f. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

As the proposal does not require consent under the PDP, this policy is of limited relevance. In any event, I believe the proposal has adequately taken into account all of the matters listed above that are relevant.

In summary I believe the proposed subdivision to be consistent with the PDP's objectives and policies in regard to subdivision.

The site is zoned Settlement in the PDP. The overview for this zone describes it "as being appropriate for areas used predominantly for a cluster of residential, commercial, light industrial and/or community activities that are located in rural areas or the coastal environment."

A defining feature of settlements so zoned is

"that they are neither supported, nor plan to be supported, by a Council reticulated wastewater network. In addition, most settlements do not have reticulated water supply and are not connected to a reticulated stormwater network"

In this instance, Okaihau is supported by a reticulated water supply, to which the application site is connected, albeit the applicant does not intend to connect the new (additional) lot to that service. The site is supported in part by a stormwater management system, namely Settlers Way, to which the front portion of the site will continue to drain. The site must otherwise be self sufficient in regard stormwater management and wastewater. The Site Feasibility Appraisal supporting the application verifies that the proposed vacant lot can be self-sufficient to the degree required.

Settlement Zone Objectives:

RSZ-O1

Rural and coastal settlements are used predominantly for residential activities and are sustained by a range of compatible activities and services.

RSZ-O2

Land use and subdivision is of a scale and intensity that is in keeping with the rural or coastal character and amenity of each settlement

RSZ-O3

Land use and subdivision in the Settlement zone is appropriate for the physical and environmental attributes of the site and any infrastructure constraints.

RSZ-O4

Land use and subdivision in the Settlement zone is managed to control any reverse sensitivity issues that may occur within the zone or at the zone interface.

The proposal is to create an additional lot to support residential use (RSZ-O1). The level of density proposed is in keeping with the character and amenity of the settlement (RSZ-O2), and the proposal is appropriate for the physical and environmental attributes of the site (RSZ-O3). The proposal does not generate additional reverse sensitivity issues and whilst the site is on a zone interface with Rural Production I do not believe this creates any additional reverse sensitivity issues (RSZ-O4).

Settlement Zone Policies:

RSZ-P1

Enable residential and complementary non-residential activities that support the role and function of the Settlement zone.

RSZ-P2

Require land use and subdivision in the Settlement zone associated with non-residential activities to demonstrate the ability to provide for onsite infrastructure unless a reticulated service is available.

RSZ-P3

Enable non-residential activities in the Settlement zone that:

- a. are of a scale, intensity, character and amenity that compliments the residential activities in the settlement;*
- b. support the social and economic well-being of the community;*
- c. do not adversely affect the viability and vitality of nearby urban centers; and*
- d. demonstrate the ability to provide for onsite infrastructure.*

RSZ-P4

Avoid land use and development in the Settlement zone that results in reverse sensitivity effects either within the zone or on activities adjacent zones.

RSZ-P5

Manage land use and subdivision to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:

- a. the scale, character and amenity of the settlement, in particular impacts on existing residential activities;
- b. siting and design;
- c. cultural and social well-being, including health and safety;
- d. potential reverse sensitivity effects both within the settlement and on adjacent zones;
- e. its location within or adjoining to the settlement; and
- f. the vitality and viability of nearby urban environments.
- g. the capacity of the site to cater for on-site infrastructure associated with the proposed activity;
- h. the adequacy of roading infrastructure to service the proposed activity;
- i. managing natural hazards;
- j. any adverse effects on areas with historic heritage and cultural values, natural features and landscapes, natural character or indigenous biodiversity values; and
- k. any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6

The proposal creates an additional lot for residential use (RSZ-P1). It does not create additional reverse sensitivity issues (RSZ-P4). The proposal has had regard to all the matters listed in RSZ-P5 where relevant. RSZ-P2 and P3 relate to the establishment of non residential activities and are not relevant to this proposal.

7.3 Part 2 Matters

5 Purpose

- (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
- (2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—
 - (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
 - (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
 - (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

The proposal provides for peoples' social and economic well being, and for their health and safety, while sustaining the potential of natural and physical resources, safeguarding the life-supporting capacity of air, water, soil and the ecosystems; and avoiding, remedying or mitigating adverse effects on the environment.

6 Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development;
- (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development;
- (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

Proposed Subdivision

- (d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
- (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*
- (f) the protection of historic heritage from inappropriate subdivision, use, and development:*
- (g) the protection of protected customary rights:*
- (h) the management of significant risks from natural hazards.*

The application site does not contain or display any of the features, resources or values outlined in Section 6.

7 Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—

- (a) kaitiakitanga:*
 - (aa) the ethic of stewardship:*
 - (b) the efficient use and development of natural and physical resources:*
 - (ba) the efficiency of the end use of energy:*
 - (c) the maintenance and enhancement of amenity values:*
 - (d) intrinsic values of ecosystems:*
 - (e) [Repealed]*
 - (f) maintenance and enhancement of the quality of the environment:*
 - (g) any finite characteristics of natural and physical resources:*
 - (h) the protection of the habitat of trout and salmon:*
 - (i) the effects of climate change:*
 - (j) the benefits to be derived from the use and development of renewable energy.*

Regard has been had to any relevant parts of Section 7 of the RMA, "Other Matters". These include 7(b), (c), (d) and (f). It is considered that the proposal represents efficient use and development of a site. Proposed layout will ensure the maintenance of amenity values and the quality of the environment. The proposal has had regard to the values of ecosystems.

8 Treaty of Waitangi

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

The principles of the Treaty of Waitangi have been considered and it is believed that this proposed subdivision does not offend any of those principles.

In summary, it is considered that all matters under s5-8 inclusive have been adequately taken into account.

7.4 National Environmental Standards

I have not identified any National Environmental Standard that is relevant to the proposal. It is my understanding that the NES CS is not intended to apply to an individual (and domestic) dis-established wastewater disposal fields.

7.5 National and Regional Policy Statements

I have not identified any national policy statements relevant to this proposal. In regard to the NPS on Urban Development 2020 – Updated May 2022 (NPS UD), the Far North District Council is neither a Tier 1 nor Tier 2 local authority. Notwithstanding this, the NPS UD's objectives and policies focus on improving housing affordability and enabling more people to live close to amenities in urban centres, in a variety of homes, along with the necessary infrastructure planning to be carried out. In fill development such as that proposed is entirely consistent with the objectives and policies of the NPS UD.

There are no water bodies or natural inland wetlands on the property. The site being subdivided is not subject to the NPS for Highly Productive Land because it is not zoned general rural or rural production.

The Regional Policy Statement for Northland contains objectives and policies related to infrastructure and regional form and economic development. These are enabling in promoting sustainable management in a way that is attractive for business and investment. The proposal is consistent with these objectives and policies.

8.0 s95A-E ASSESSMENT & CONSULTATION

8.1 S95A Public Notification Assessment

A consent authority must follow the steps set out in s95A to determine whether to publicly notify an application for a resource consent. Step 1 specifies when public notification is mandatory in certain circumstances. None of these circumstances exist and public notification is not mandatory. Step 2 of s95A specifies the circumstances that preclude public notification. None of these exist, and public notification is therefore not precluded. Step 3 of s95A must then be considered. This specifies that public notification is required in certain circumstances. These include:

- (a) *the application is for a resource consent for 1 or more activities, and any of those activities is subject to a rule or national environmental standard that requires public notification;*
- (b) *the consent authority decides, in accordance with section 95D, that the activity will have or is likely to have adverse effects on the environment that are more than minor.*

The application is not subject to a rule or national environmental standard that requires public notification. This report and AEE concludes that the activity will not have, nor is it likely to have, adverse effects on the environment that are more than minor. In summary public notification is not required pursuant to Step 3 of s95A.

Step 4 of s95A states that the consent authority is to determine if there are any special circumstances under which public notification may be warranted. Such circumstances are not defined. I do not consider any such circumstances exist.

In overall summary, public notification of this application is not required.

8.2 S95B Limited Notification Assessment

A consent authority must follow the steps set out in s95B to determine whether to give limited notification of an application for a resource consent, if the application is not publicly notified pursuant to s95A. Step 1 identifies certain affected groups and affected persons that must be notified. No such groups or persons exist in this instance.

Step 2 of s95B specifies the circumstances that preclude limited notification. No such circumstances exist and therefore limited notification is not precluded.

Step 3 of s95B must be considered. This specifies that certain other affected persons must be notified, specifically:

- (7) *In the case of a boundary activity, determine in accordance with section 95E whether an owner of an allotment with an infringed boundary is an affected person.*
- (8) *In the case of any other activity, determine whether a person is an affected person in accordance with section 95E.*

The application is not for a boundary activity. Refer to the s95E assessment below in regard to the determination of affected persons.

Step 4 of s95B states that the consent authority is to determine if there are any special circumstances under which limited notification may be warranted. Such circumstances are not defined. I do not consider any such circumstances exist.

8.3 S95D Level of Adverse Effects

The AEE in this report assesses effects on the environment and concludes that these will be no more than minor. As such public notification is not required.

8.4 S95E Affected Persons & Consultation

A person is an 'affected person' if the consent authority decides that the activity's adverse effects on the person are minor or more than minor (but are not less than minor). A person is not an affected person if they have provided written approval for the proposed activity.

The immediately adjacent site to the west of the application site shares a boundary predominantly with the existing built environment within the application site. The proposal does not change this and does not propose any additional development on or near the shared boundary. I have not therefore regarded Lot 8 DP 34311 to be 'affected' in a minor or more than minor way by the proposal.

The property immediately to the east has the same dimensions as the application site and the shared boundary runs the entire length of the adjacent property, Lot 9 DP 34311. That property's residential dwelling is adjacent to the already developed Lot 2, with the only

impact of an additional lot to the rear being the proposed driveway that will follow the driveway. To ensure effects are less than minor, it is proposed to construct a boundary fence down the length of the driveway. This will help shield the residence on Lot 9 DP 34311 from the effects of residential traffic utilising the driveway.

In addition, Lot 6 DP 34311 (to the west) shares a boundary with new proposed Lot 1 and their current limited outlook onto vacant lawn will change to one of built development once Lot 1 is built on. Lot 6 DP 34311 contains screening vegetation that restricts its views onto the application site and it is intended to construct a boundary fence to further restrict those views and thereby mitigating effects to be less than minor.

I have not identified any adjacent property to be adversely affected in a minor or more than minor way.

The site does not contain any heritage or cultural sites or values, is not close to, and does not contain, any water body, and only minimal earthworks are being proposed. The site does not contain any areas of indigenous vegetation or habitat. The site being subdivided is not accessed off state highway. As such, no pre lodgement consultation has been considered necessary with tangata whenua, Heritage NZ, Department of Conservation or Waka Kotahi.

9.0 s104D GATEWAY TEST

104D Particular restrictions for non-complying activities

(1) Despite any decision made for the purpose of section 95A(2)(a) in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—

(a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of—

(i) the relevant plan, if there is a plan but no proposed plan in respect of the activity; or

(ii) the relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or

(iii) both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.

In regard to the above, I am of the opinion that, whilst a non complying activity, it is nonetheless an activity that will achieve a sustainable result and efficient use of the land. I believe that adverse effects on the wider environment will be no more than minor. I believe the proposal is not contrary to the objectives and policies in the Operative or Proposed Plans. I consider both arms of the 104D thresholds to be satisfied to enable the granting of this consent.

10.0 CONCLUSION

The site is considered suitable for the proposed subdivision. Effects on the wider environment are, I believe, capable of remedy and mitigation through conditions of consent, such that they will be no more than minor. The proposal is considered consistent with the relevant objectives and policies of the Operative and Proposed District Plans, and relevant objectives and policies of the National and Regional Policy Statements, and consistent with Part 2 of the Resource Management.

There is no District Plan rule or national environmental standard that requires the proposal to be publicly notified.

It is requested that the Council give favourable consideration to this application and grant consent.



Lynley Newport
Senior Planner
THOMSON SURVEY LTD

Date 10th June 2024

11.0 LIST OF APPENDICES

Appendix 1	Scheme Plan(s)
Appendix 2	Locality Plan
Appendix 3	Records of Title & Relevant Instruments
Appendix 4	Consultation with Top Energy and Chorus
Appendix 5	Site Feasibility Appraisal

Appendix 1

Scheme Plan(s)

MEMORANDUM OF EASEMENTS

PURPOSE	SHOWN	SERVIENT TENEMENT	DOMINANT TENEMENT
RIGHT OF WAY, TELECOMMUNICATIONS, ELECTRICITY & WATER SUPPLY	(A)	LOT 2 HEREON	LOT 1 HEREON
RIGHT TO DRAIN SEWER & STORMWATER	(B)	LOT 1 HEREON	LOT 2 HEREON
RIGHT TO DRAIN SEWER	(C)	LOT 1 DP 579128	LOTS 1 & 2 HEREON

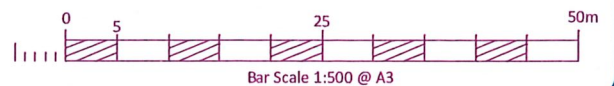


THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF THOMSON SURVEY LTD AND MAY NOT BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THOMSON SURVEY LTD

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: NA739/178
 Total Area: 2251m²
 Zoning: Residential
 Resource features: NIL



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 Email: kerikeri@tsurvey.co.nz
 Ph: (09) 407360
 www.tsurvey.co.nz

Registered Land Surveyors, Planners & Land Development Consultants

PROPOSED SUBDIVISION OF LOT 1 DP 29956 & EASEMENT OVER LOT 1 DP 579128

PREPARED FOR: WAIHANGA OKAIHAU LTD

	Name	Date
Survey		
Design		
Drawn	KY	08.03.23
Approved		
Rev	KY	07.03.24

ORIGINAL
 SCALE SHEET SIZE
 1:500 A3

Surveyors Ref. No:

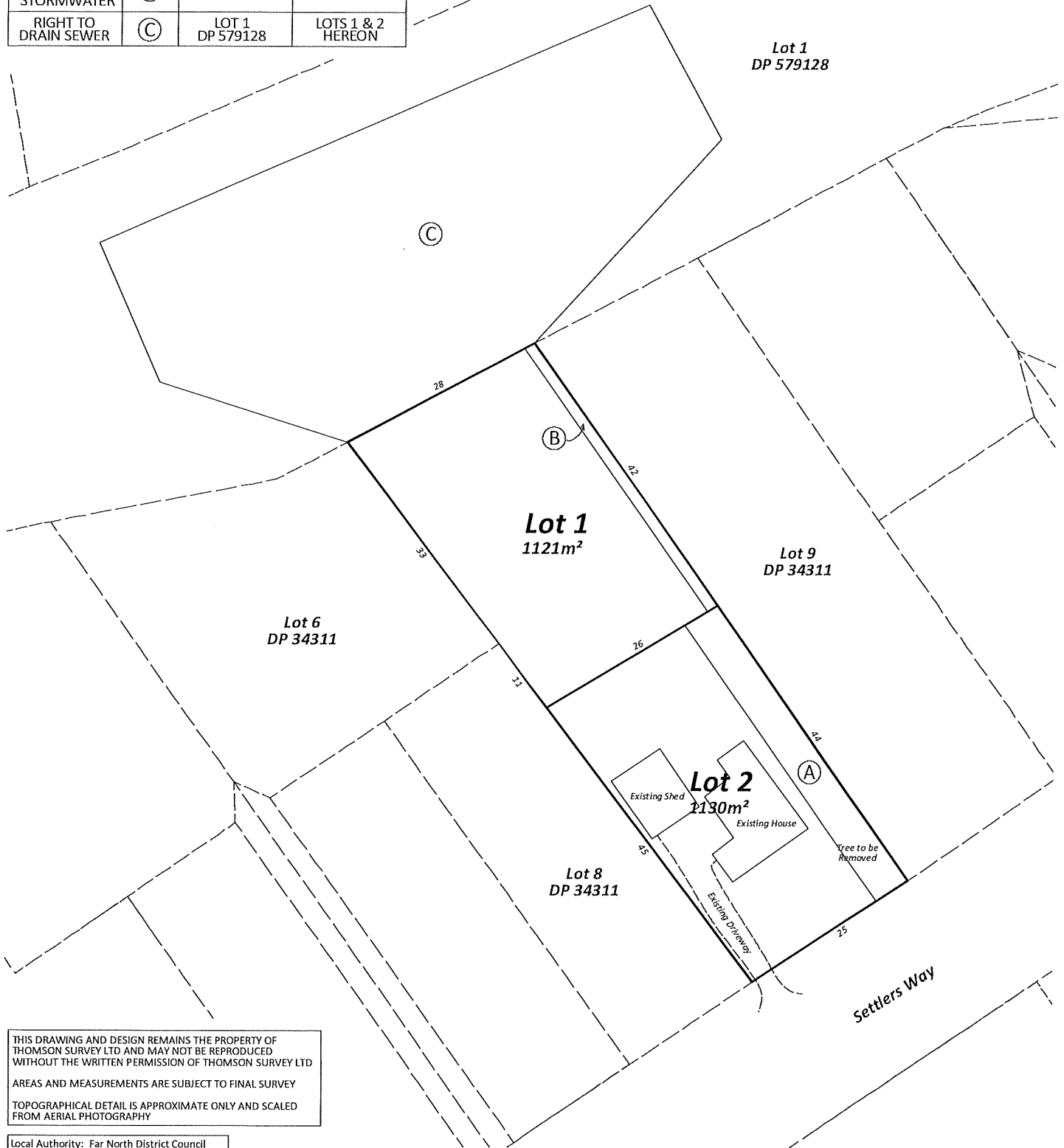
10469

Sheet 1 of 1

MEMORANDUM OF EASEMENTS

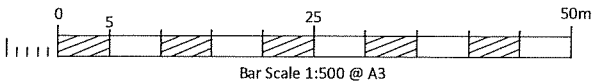
PURPOSE	SHOWN	SERVIENT TENEMENT	DOMINANT TENEMENT
RIGHT OF WAY, TELECOMMUNICATIONS, ELECTRICITY & WATER SUPPLY	(A)	LOT 2 HEREON	LOT 1 HEREON
RIGHT TO DRAIN SEWER & STORMWATER	(B)	LOT 1 HEREON	LOT 2 HEREON
RIGHT TO DRAIN SEWER	(C)	LOT 1 DP 579128	LOTS 1 & 2 HEREON

Umuhapuku 2F



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 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: NA739/178
 Total Area: 2251m²
 Zoning: Residential
 Resource features: NIL



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 www.tsurvey.co.nz

Registered Land Surveyors, Planners & Land Development Consultants

PROPOSED SUBDIVISION OF LOT 1 DP 29956 & EASEMENT OVER LOT 1 DP 579128

PREPARED FOR: WAIHANGA OKAIHAU LTD

Name	Date	ORIGINAL	SHEET SIZE
Survey			
Design			
Drawn	KY	08.03.23	
Approved			
Rev	KY	07.03.24	
		1:500	A3
10469 Scheme 20240307			

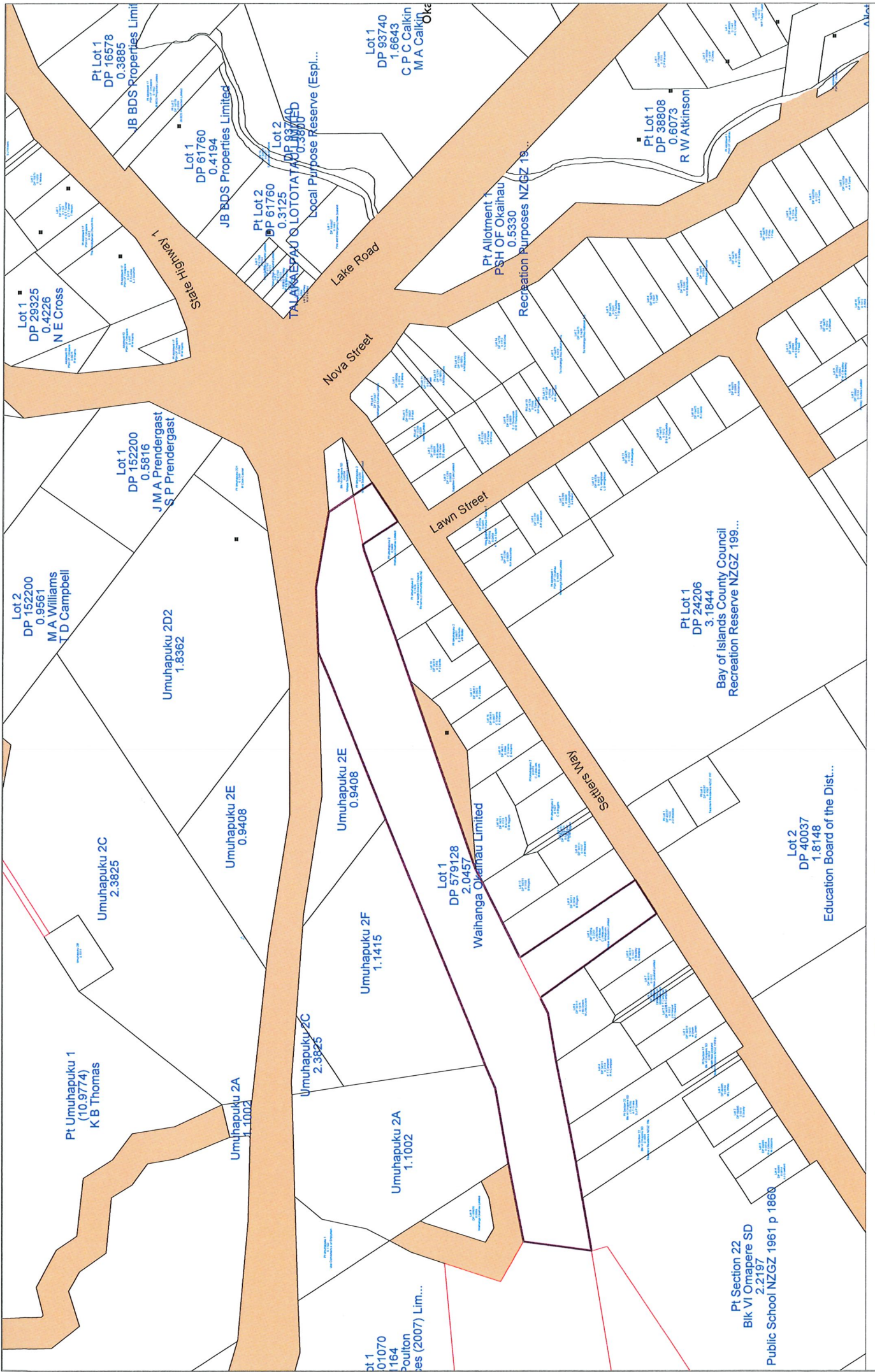
Surveyors Ref. No:

10469

Sheet 1 of 1

Appendix 2

Locality Plan



Any person wishing to rely on the information shown on this map must independently verify the information
 Scale 1:3000 Topographical and Cadastral map derived from LINZ data. Printed: 06-Nov-2023 09:02.



Appendix 3
Records of Title &
Relevant Instruments



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




R. W. Muir
Registrar-General
of Land

Identifier NA739/178
Land Registration District North Auckland
Date Issued 08 January 1941

Prior References

NA653/250

Estate Fee Simple
Area 2251 square metres more or less
Legal Description Part Umuhapuku No 2 Block

Registered Owners
Waihanga Okaihau Limited

Interests

12587388.2 Mortgage to Kiwibank Limited - 31.10.2022 at 6:40 pm

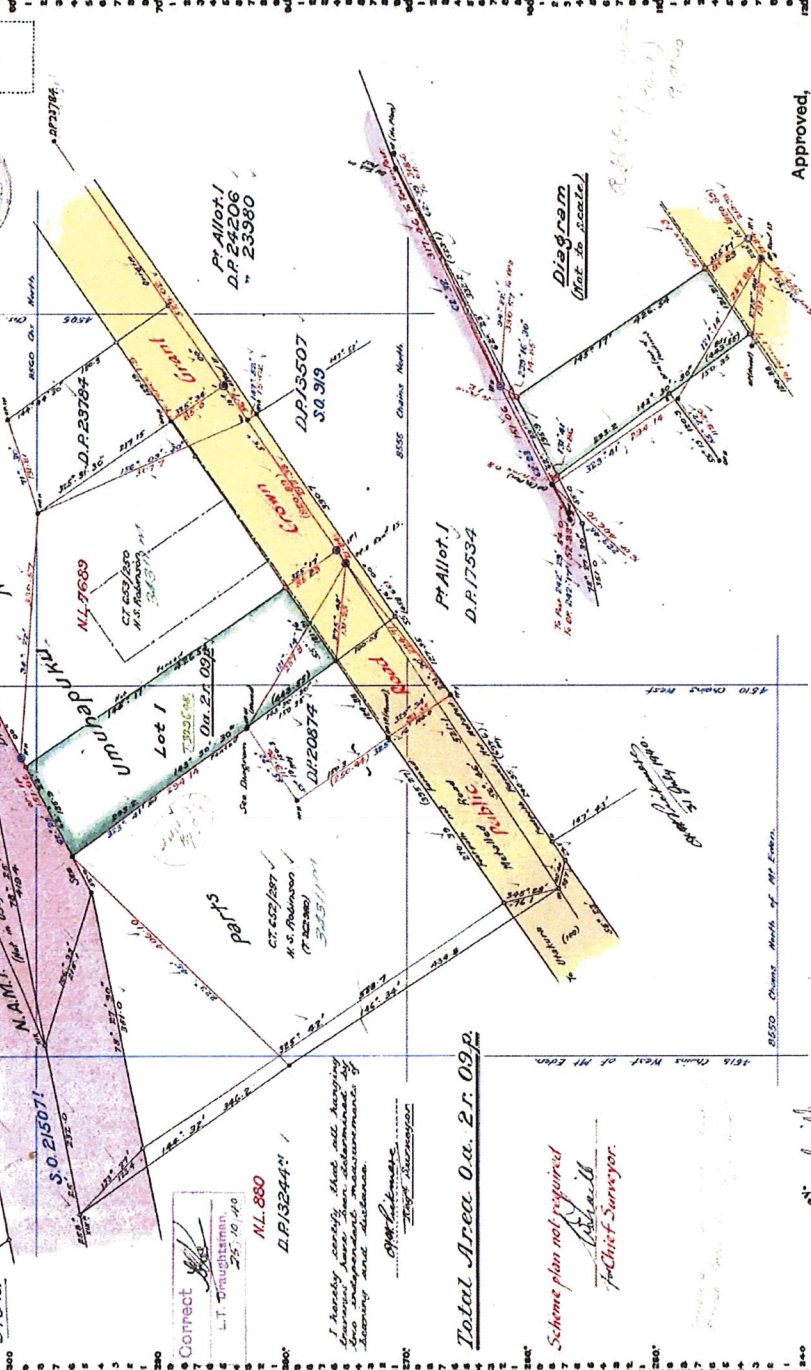
FOR SURVEYS UNDER THE LAND TRANSFER ACT ONLY.

North Auckland Land District
VI OMAPERE S.D.
BAY OF ISLANDS COUNTY

DEPOSITED this 30th day
of OCTOBER, 1940



LAND TRANSFER OFFICE.
RECEIVED: 9/17/1940, No. 209756
TITLE REF.: Pt. C.T. 657/250.
REFERRED TO DRAUGHTSMAN: 121/91/40
L.T. DRAUGHTSMAN:
EXAMINED: *W. J. ...*
TRAY, BOOK: VOL. 150, PAGE 140
COMP. No.: 17324, 17324, 17324
S.O. 21507, 21507, 21507
FILE: Surveyors File 141
540 R.



Total Area Oa. 2r. 09R

Scheme plan not required
A. H. Pickmere
Chief Surveyor.

Approved,
A. S. Robinson

Surveyed by **Pt. UMUHAPUKU No 2**, Registered Surveyor,
Comprised in **C.T. 657/250**, June, 1940.
Applicant (or Registered Owner).

DECLARATION.

I, *A. H. Pickmere*, Registered Surveyor, do solemnly and sincerely declare that this plan has been made from surveys executed by me, and that the same are true and correct, and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Statute in that behalf made.

Declared at *Auckland*, this *30th* day of *October*, 1940.
A. H. Pickmere
Chief Surveyor.



299956



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



R. W. Muir
Registrar-General
of Land

Identifier 1074247
Land Registration District North Auckland
Date Issued 09 March 2023

Prior References

850845 NA613/224

Estate Fee Simple
Area 2.1343 hectares more or less
Legal Description Lot 3 Deposited Plan 199835 and Lot 1
Deposited Plan 579128

Registered Owners

Waihanga Okaihau Limited

Interests

Subject to Section 168A Coal Mines Act 1925 (affects part Lot 1 DP 579128 formerly Section 27 Blk VI Omapere SD)

Subject to Section 59 Land Act 1948 (affects Lot 3 DP 199835 and part Lot 1 DP 579128 formerly Sections 23 & 24 Blk VI Omapere SD)

Subject to Section 8 Mining Act 1971 (affects part Lot 1 DP 579128 formerly Section 27 Blk VI Omapere SD)

Appurtenant to part Lot 1 DP 579128 (formerly Lot 1 DP 527697) is a right of way and rights to convey water, electricity, telecommunications and computer media created by Easement Instrument 6101600.3 - 3.8.2004 at 9:00 am

The easements created by Easement Instrument 6101600.3 are subject to Section 243(a) Resource Management Act 1991

Appurtenant to part Lot 1 DP 579128 (formerly Lot 1 DP 527697) is a right of way, rights to convey water and a right to transmit electricity, telecommunications and computer media created by Easement Instrument 6716165.2 - 12.1.2006 at 9:00 am

The easements created by Easement Instrument 6716165.2 are subject to Section 243(a) Resource Management Act 1991

Land Covenant in Transfer 6920019.1 - 23.6.2006 at 9:00 am (affects Lot 3 DP 199835 and part Lot 1 DP 579128 formerly Lot 1 DP 527697)

11229680.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 9.10.2018 at 9:09 am (affects part Lot 1 DP 579128 formerly Lot 1 DP 527697)

Land Covenant in Covenant Instrument 11288873.3 - 26.11.2018 at 5:32 pm (affects part Lot 1 DP 579128 formerly Lot 1 DP 527697)

11269184.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 5.8.2019 at 5:07 pm (affects part Lot 1 DP 579128 formerly Lot 1 DP 527697)

Appurtenant to Lot 3 DP 199835 is a right of way, a right to drain sewage and rights to convey water, electricity and telecommunications created by Easement Instrument 11269184.4 - 5.8.2019 at 5:07 pm

The easements created by Easement Instrument 11269184.4 are subject to Section 243(a) Resource Management Act 1991

12587388.15 Mortgage of part Lot 1 DP 579128 (formerly Pt Umuhapuku 2 Blk) to Kiwibank Limited - 31.10.2022 at

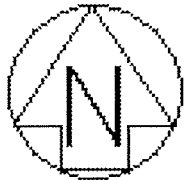
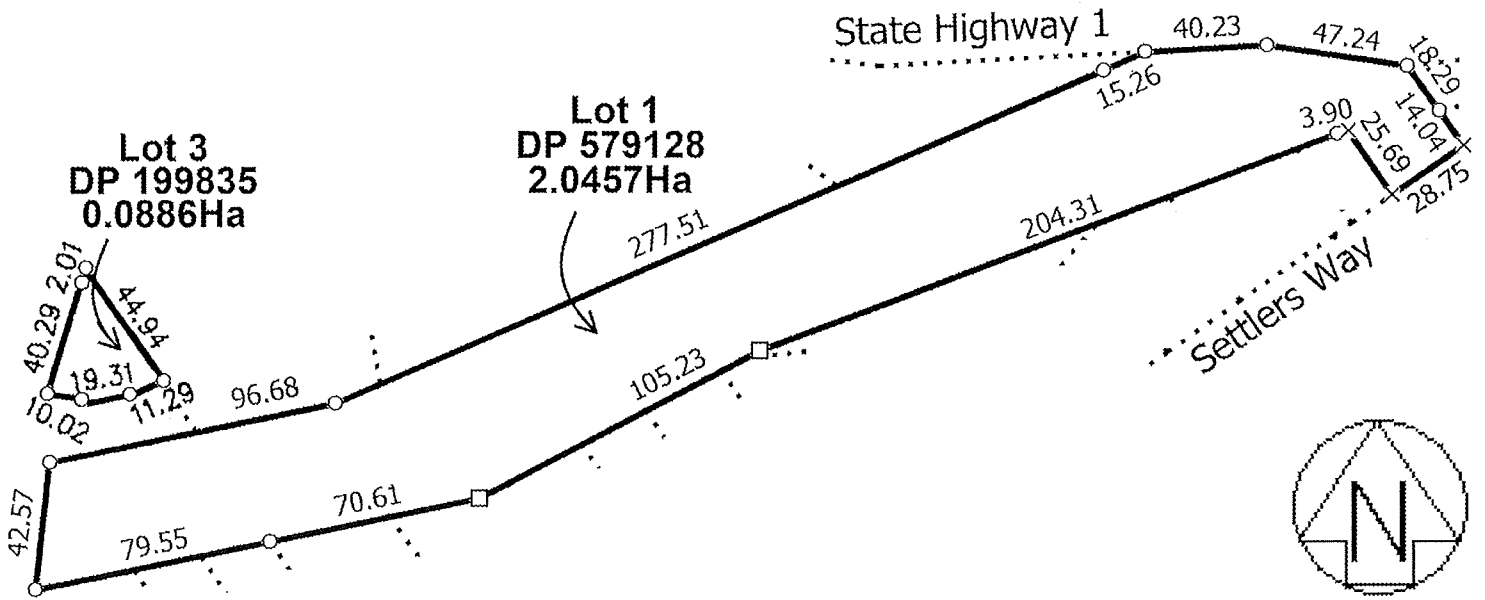
Identifier

1074247

6:40 pm

Fencing Covenant in Transfer 12545779.2 - 9.3.2023 at 3:44 pm (affects Lot 3 DP 199835 and part Lot 1 DP 579128 formerly Lot 1 DP 527697)

Subject to Sections 241(2) and 242(1) and (2) Resource Management Act 1991 (affects DP 579128)





View Instrument Details

Instrument No. 11229680.2
Status Registered
Date & Time Lodged 09 Oct 2018 09:09
Lodged By Fryer, Louise
Instrument Type Consent Notice under s221(4)(a) Resource Management Act 1991



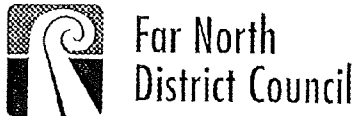
Affected Computer Registers	Land District
833925	North Auckland
833926	North Auckland

Annexure Schedule: Contains 2 Pages.

Signature

Signed by Simon David Dominick as Territorial Authority Representative on 09/10/2018 09:00 AM

*** End of Report ***



Piirle Bay 752, Memorial Ave
Kohere 0440, New Zealand
Freephone: 0800 720 029
Phone: (09) 401 5200
Fax: (09) 401 2137
Email: enr@fncc.govt.nz
Website: www.fncc.govt.nz

To Kōwhiriā o Tai Tokerau Ki Te Raki

THE RESOURCE MANAGEMENT ACT 1991

SECTION 221: CONSENT NOTICE

REGARDING RC 2180351

Being the Subdivision of Lot 2 DP 362599 Lot 3 DP 199835
North Auckland Registry

PURSUANT to Section 221 and for the purpose of Section 224 (c) (ii) of the Resource Management Act 1991, this Consent Notice is issued by the **FAR NORTH DISTRICT COUNCIL** to the effect that conditions described in the schedule below are to be complied with on a continuing basis by the subdividing owner and the subsequent owners after the deposit of the survey plan, and these are to be registered on the titles of the allotments specified below.

SCHEDULE

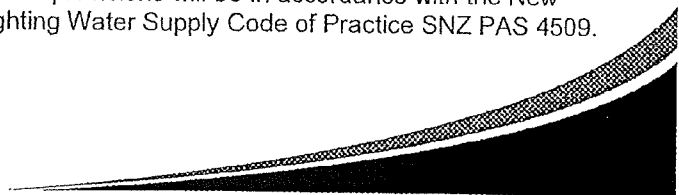
Lots 1 and 2 DP 523693

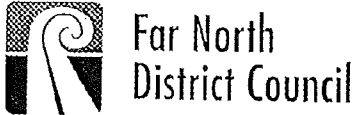
- (i) Without the prior approval of the Council, no building shall be erected, nor any works which increase impermeable surfaces be undertaken, nor any planting or structure placed which may create a flow obstruction, on any area of the site which has been proposed as a secondary / overland (Q100) flow path as identified on the revised subdivision scheme plan submitted to comply with condition 3(a) of RC 2180351.

Care should be taken when increasing impermeable surfaces on this lot as a change in stormwater could adversely impact on surrounding properties.

Lot 1 DP 523693

- (ii) In conjunction with the construction of any dwelling, and in addition to a potable water supply, a water collection system with sufficient supply for fire fighting purposes is to be provided by way of tank or other approved means and to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509.






Private Bag 752, Akaroa Ave
Palmerston North 4442, New Zealand
Freephone: 0800 920 029
Phone: (03) 401 5200
Fax: (03) 401 2137
Email: esk.es@fndc.govt.nz
Website: www.fndc.govt.nz

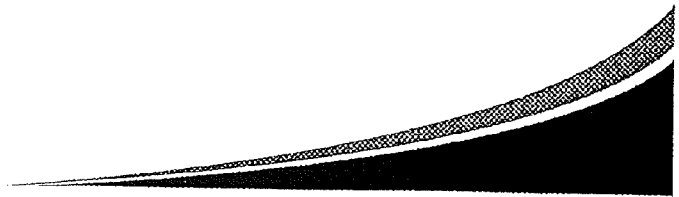
Te Kaitiaki o Tai Tokerau Ki Te Raki

Te Kaitiaki o Tai Tokerau Ki Te Raki

- (iii) Vehicle Access onto State Highway 1 is not permitted unless written approval is obtained from the New Zealand Transport Agency.

SIGNED:  Mr Patrick John Killalea - Authorised Officer
By the FAR NORTH DISTRICT COUNCIL
Under delegated authority:
PRINCIPAL PLANNER – RESOURCE MANAGEMENT

DATED at KERIKERI this 25th day of September 2018





View Instrument Details

Instrument No. 11269184.3
Status Registered
Date & Time Lodged 05 Aug 2019 17:07
Lodged By Fryer, Louise
Instrument Type Consent Notice under s221(4)(a) Resource Management Act 1991



Affected Records of Title	Land District
850845	North Auckland
850846	North Auckland
850847	North Auckland
850848	North Auckland
850849	North Auckland
850850	North Auckland

Annexure Schedule Contains 2 Pages.

Signature

Signed by Simon David Dominick as Territorial Authority Representative on 05/08/2019 05:02 PM

***** End of Report *****



Private Bag 752, Memorial Ave
Kaitiaki 0440, New Zealand
Telephone: 0800 729 029
Phone: (09) 401 5200
Fax: (09) 401 2137
Email: cdl.us@fnc.govt.nz
Website: www.fnd.govt.nz

Te Kaunihera o Tai Tokerau Ki Te Raki

THE RESOURCE MANAGEMENT ACT 1991

SECTION 221: CONSENT NOTICE

REGARDING RC 2180639

Being the Subdivision of Lot 2 DP 362599 Lot 3 DP 199835
North Auckland Registry

PURSUANT to Section 221 and for the purpose of Section 224 (c) (ii) of the Resource Management Act 1991, this Consent Notice is issued by the **FAR NORTH DISTRICT COUNCIL** to the effect that conditions described in the schedule below are to be complied with on a continuing basis by the subdividing owner and the subsequent owners after the deposit of the survey plan, and these are to be registered on the titles of the allotments specified below.

SCHEDULE

Lots 5 – 9 DP 527697

- (i) In conjunction with the construction of any building requiring building consent and associated impermeable surface on Lots 5 - 9, the lot owner shall submit with the Building Consent application a stormwater management report and design for stormwater mitigation measures for approval of Council's Consent Engineer or designate. The system shall be designed as such that the total stormwater discharged from the site, after development, is no greater than the pre-development flow from the site for rainfall events up to a 10% AEP plus allowance for climate change. The report shall be prepared by a suitably qualified and experienced practitioner.

Lot 1 DP 527697

- (ii) The owner of Lot 1 shall maintain on an ongoing basis the stormwater control and mitigation system which includes the Detention and Silt control pond and outfall on Lot 1 as shown in easement **E** to a reasonable and operational standard

Lots 1, 5-9 DP 527697

- (iii) In conjunction with the construction of any building which includes a wastewater treatment & effluent disposal system, the applicant shall submit for Council approval an Onsite Wastewater System Report prepared by a Chartered Professional Engineer or a Council approved Report Writer. The report shall identify a suitable method of



Far North District Council

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Rukohia 0340, New Zealand
Freephone: 0800 920 027
Phone: (07) 401 5200
Fax: (07) 401 2137
Email: csf.us@fndc.govt.nz
Website: www.fndc.govt.nz

Te Kaunihera o Tai Tokerau Ki Te Raki

wastewater treatment for the proposed development along with an identified effluent disposal area plus a reserve disposal area and reference the Stormwater and Wastewater report dated April 2018 prepared by Haigh Workman Ltd, ref 18-025 and submitted with Resource Consent 2180639.

- (iv) In conjunction with the construction of any dwelling, and in addition to a potable water supply, a water collection system with sufficient supply for fire fighting purposes is to be provided by way of tank or other approved means and to be positioned so that it is safely accessible for this purpose. These provisions will be in accordance with the New Zealand Fire Fighting Water Supply Code of Practice SNZ PAS 4509 *

Lots 1, 5 6 & 7 DP527697

- (i) All habitable buildings of Importance level 2 and greater structures (as defined in AS/NZS 1170) will require engineering assessment for foundations and ground suitability. Design shall be by a Chartered Professional Engineer with recognized competence in relevant geotechnical, structural matters and include an indication of construction monitoring requirements for the foundation construction. The foundation design details shall be submitted in conjunction with the Building Consent application.

SIGNED:



Mr Patrick John Killalea - Authorised Officer

By the FAR NORTH DISTRICT COUNCIL

Under delegated authority:

PRINCIPAL PLANNER – RESOURCE MANAGEMENT

DATED at KERIKERI this 1st day of July 2019



Appendix 4
Consultation with Top Energy
and Chorus



2 April 2024

Lynley Newport
Thomson Survey
PO Box 372
KERIKERI 0245

Email: lynley@tsurvey.co.nz

Top Energy Limited

Level 2, John Butler Centre
60 Kerikeri Road
P O Box 43
Kerikeri 0245
New Zealand
PH +64 (0)9 401 5440
FAX +64 (0)9 407 0611

To Whom It May Concern:

RE: PROPOSED SUBDIVISION

Waihanga Okaihau Ltd - 39 Settlers Way, Okaihau. Lot 1 DP 29956.

Thank you for your recent correspondence with attached subdivision scheme plans.

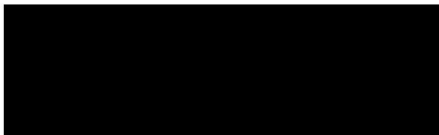
Top Energy's requirement is that power be made available for the additional lot. Top Energy advises that proposed Lot 2 has an existing power supply. Costs to make power available to proposed Lot 1 would be provided after application and an on-site survey have been completed.

Link to application: [Top Energy | Top Energy](#)

In order to get a letter from Top Energy upon completion of your subdivision, a copy of the resource consent decision must be provided.

If you have any further queries, please do not hesitate to contact the writer.

Yours sincerely



Aaron Birt

Planning and Design

T: 09 407 0685

E: aaron.birt@topenergy.co.nz



GUMBOOTS
CONSULTING ENGINEERS

Site Feasibility Appraisal

For Proposed Subdivision at

39 Settlers Way, Okaihau

For

Waihanga Okaihau Limited

*Supporting report for resource consent application to Far North District Council
Gumboots Consulting Engineers reference 1285*



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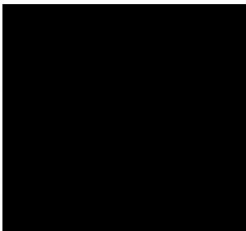
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Revision History

Revision N°	Prepared By	Description	Date
A	Kelly Wright	Geotechnical, Stormwater/Wastewater Assessment	04/03/2024

Reviewed/Approved

On behalf of Gumboots Consulting Engineers Ltd by:



Akira Kepu

Senior Chartered Geotechnical-Civil Engineer

CMEngNZ, Board Member of EngNZ Northland Branch.

Member of NZGS, ISSMGE, SIG EGP & The Sustainability Society.

1. Executive Summary

The following summarises the findings, conclusions and recommendations detailed within this report. As appropriate, the report shall be read in its entirety to ensure full understanding of the following.

Critical Objectives	Considered
Proposed activity	Subdivision of Lot 1 DP 29956 to create two lots.
RMA	No geotechnical natural hazards were identified (as listed in the Act) that are considered an undue hindrance to subdivision or that cannot be reasonably addressed by typical engineering design and construction.
Proposed Lots 1 and 2	Lot 2 is considered fully developed and shall be sustained post subdivision stage. Lot 1 critical <u>site</u> hereon, will be subject to residential development.
Access	Lot 2 is established off Settler's way to the south western corner of the property. Lot 1 will be formed at a later stage from the south eastern corner.
Vehicular crossing	Pertaining to proposed Lot 1 shall be formed in accordance with the FNDC engineering standards.
Vehicular entrance site distance and tracking curves	Comply with current FNDC engineering standards.
Fill	Not Encountered
Natural Soils	Very stiff residual soils of the Kerikeri Volcanics group
Unduly Weak, Sensitive, Or Compressible Soils	Not Encountered
Subsoil reactivity under normal moisture conditions	Slightly reactive - may become moderately reactive under circumstances where rapidly exposed to the elements.
Groundwater	Not encountered
Seismic Site Class	Site Class C - shallow soil site in accordance with NZS 1170.5:2004.
Slope Stability	Slopes steeper than 1V:4H are present. The identified building platform proposed is considered sufficiently set back from the steeper slope bounding the northern aspect. It is judged to be suitable for future

	residential development from a land stability point of view. No signs of land mobility were encountered.
Building Platform	Proposed for Lot 1 is designated within the restricted building line [RBL]
Foundations	Based on current investigation data to limited depths, shallow foundations can be applicable for subsequent home development within proposed lot 1. Further discussion in this regard is presented in Section 15.3.
Onsite Wastewater Disposal	Each proposed Lot shall comprise a secondary on-site wastewater treatment system. Land application via dripper lines; proposed to be located within Proposed Lot 1 [Subdivision of] Lot 1 DP 527697.
Stormwater Management	Shall assume water tanks for roof runoff neutrality. Such practice is considered sustainable with minimal impact to the environment overall.
Site-specific appraisal for Building Consent	Specific to Lot 1 with regard to proposed development at such time; it shall include geotechnical, stormwater and wastewater management.
Construction Observation	Recommended for the crossover design and construction for proposed Lot 1.

In specific reference expressed within and in unity with the objectives of the Resource Management Act 1991.

There is, considered less than minor,

1. Significant risk from natural hazards, and;
2. Sufficient provisions had been made for legal and physical access to each allotment to be created by the subdivision.

The intended purpose for land on the subject property (legal description Lot 1 Deposited Plan 29956) can be sustained SUBJECT to;

- ALL future developments shall be carefully planned with respect to the existing natural environments within the respective lots. These natural land features shall be carefully incorporated/maintained within the overall occupational development as it shall provide long term sustainability in ALL aspects to the land and hosting environments.
- ALL recommendations highlighted (and not limited) herein shall be ADHERED to.
- ALL proposed Works exhaust good sound engineering practices and complemented by means of extensive and conscientiously executing field observations/positive action during and after construction.

- ALL proposed Works shall be conducted in accordance with FNDC Engineering Standards and Guidelines and related documents and in conjunction with NZS 4404, Land Development and Subdivision Engineering.

It shall be appreciated that the professional opinions and language expressed within the appraisal are solely from an engineering perspective.

Appropriately, the appraisal shall be read in its entirety to impart enlightenment in full context of the proposed concept and application to the existing property.

2. Introduction

This report has been prepared for Waihanga Okaihau Limited in support of an application to the Far North District Council for Resource Consent to Subdivide a residential property at 39 Settlers Way, Okaihau [the 'site'] in accordance with the requirements of the Resource Management Act 1991.

Specifically, this appraisal addresses engineering elements of natural hazards, wastewater, stormwater and earthwork requirements to promote "CLIMATE RESILIENCE" of Land, safe building platforms with less than minor effects on the environment as a result of the proposed activities [outlined in Section 2.1 below] and regenerative and balancing outputs to the natural character of the ENVIRONMENT.

Where appropriate, it is in accordance with the recommendations of NZS 4404, Land Development and Subdivision Engineering and related documents.

2.1 Appraisal Philosophy

For the pre feasible undertaking is such that the subject land as it currently stands is at an Equilibrium State.

The pillar outputs anticipated to sustain the former with respect to the primary intended activity of Subdivision shall be;

1. Minimal Site Disturbance.

That is, the careful choice of the allocated building site is such that site disturbance is limited within this area. These sites are also placed in a manner that such minor disturbances do not alter/interfere with the natural layout of the hosting environment as well as not be reversely influenced by it.

2. Low Impact Design Approach - Stormwater Management -

The property is well equipped with natural water flow paths, vegetation, neighbouring/supporting native bush (mature and regenerative) and vegetation within these sensitive areas. Therefore, careful incorporation of these existing natural site features together with good engineering practices provides an alternative approach to site design and development from a stormwater management context.

3. Sustainable Functional Land Resilience

Planting of appropriate native plant/vegetation to effectuate functional land resilience against extreme weather patterns is a critical key action that shall be of high regard to subsequent residents. This approach shall be site specific and practical in aid of the occupiers i.e. *adaptive approach* mandate sustainable outputs in all aspects.

Consequently, the property contains well established natural stormwater features with a homogenous catchment [flow] characteristic. This will be sustained and readily complements the proposed subdivision in managing stormwater.

2.2 Appraisal Method

Adopted for this project based on the initial stage of the project and the most economically viable approach with respect to our Client comprises;

1. Desk Study
2. Field Study Observations

Our reconnaissance seeks account of the fundamental properties of the site, geology, geological landscape, current interactive materials-environment-outputs.

It also, generally summarises the feasible application of the concept [developments] in a practical manner as to sustain balancing effects with the underpinning conscious living choice in favour of functional resilience of Land, Environment and LIFE in all aspects.

2.3 Objective and Scope

The objective of this report is to assess the general suitability of the site for the proposed subdivision. Primarily, the general environmental characteristics of the property. The likely extent of the intended implementations and the capacity of the land to sustain within the proposed Lots. And finally, sustainable engineering¹ solutions that may be required to support such occupation thereafter. It includes;

- The review of pertinent rules and policies, geology maps etc
- Prelim site investigations and observations and evaluation of subsurface soil conditions
- Identifying geotechnical hazards within the locale
- Identifying potential future house site (Lot 1)
- Stormwater flows and management analysis
- Preliminary Feasibility Recommendations for occupational residential living and developments.
- Aerial Survey by Drone~~X~~

¹In all aspects.

2.4 Limited Liability

This report has been prepared solely for the benefit of Waihanga Okaihau Limited, in accordance with the brief given to us, the agreed scope and in general accordance with current standards, codes and best practice at the time of this writing. Therefore, they shall be deemed the exclusive owner on full and final payment of the invoice.

Information, assumptions, and recommendations contained within this report can only be used for the purposes with which it was intended. Gumboots Consulting Engineers accepts no liability or responsibility whatsoever for;

1. any use or reliance on the report by any party other than the owner or parties working for or on behalf of the owner, such as local authorities, and for purposes beyond those for which it was intended.
2. any omissions or errors that may befall from inaccurate information provided by the Client or from external sources.

Outcomes given in this report are based on visual methods and subsurface investigations at discrete locations designed to the constraints of the project scope to provide the best assessment of the environment and subsurface conditions.

Therefore, it must be appreciated that the nature and continuity of the subsurface materials between these locations are inferred and that actual conditions could vary from that described herein. We should be contacted immediately if the conditions are found to differ from those described in this report.

Accordingly, further investigations/observations shall then be undertaken as appropriate.

This report should be read and reproduced in its entirety including the limitations to understand the context of the opinions and recommendations given.

3. Site Details and Description

3.1 Site Identification

Site Location: 39 Settlers Way, Okaihau
Legal Description: Lot 1 Deposited Plan 29956
Total Site Area: 0.2251 Ha

3.2 District Plan Zoning

According to the Far North District Council (FNDC) District Plan the site is zoned as 'Residential'.

3.3 Proposed Activity

A proposed scheme plan was presented to Gumboots Consulting Engineers at the time of writing, prepared by Thompsons Survey and is reproduced within Appendix A. It is understood the Client proposes to subdivide the site to create two new residential lots as outlined in Table 1.0 below.

Amendments to the referenced scheme plan may require an update to the recommendations of this report which are based on conservative, typical residential development concepts.

Table 1.0 - Summary of Proposed Scheme

Proposed Lot	Area (ha)	Intended end use
1	0.1121	Residential
2	0.1130	Residential - Existing dwelling within

3.4 Site Description

The site is located to the eastern end of Settlers Way and is legally described as Lot 1 DP 29956. Topographically, the site is generally formed of flat and level land gently sloping to the northern site boundary across proposed lot 1.

For proposed lot 1, the entirety of the site area and the new proposed building envelope is currently lawn. An existing residential dwelling with associated outbuildings utilised for car/tool storage is included within the boundaries of proposed lot 2. The existing residential development is accessed from Settlers Way at the southern boundary with a single driveway trending north to the existing structures; this access will not be altered for proposed lot 2.

Reference: Proposed subdivision of Lot 1 DP 29956 supplied by *Thompson Survey*, dated 08/03/23, Ref# 10469



Figure 2 - Plan View Aerial (adapted from DroneX Aerial Mapping).

The residential property is bounded by prominent hills and valleys within the northern aspect constituting the geologically rich landscape as a result of the naturally shifting pacific plates which have yielded young and luscious plains of the far north portion of the ever youthful Aotearoa.



Figure 3 - Site Features Map (maps adapted from Quick Map Enterprises and Google Earth Maps).

SUSTAINABLE LIVING - RESILIENT LAND

Based on the proposed subdivision scheme plan provided to us and our site walkover and observations, it can be concluded that the proposed activity will impose minimal disturbance to the greater natural land setting and existing environment.

3.5 Allowable Building Areas

A total developable area of 200m² has been identified for proposed Lot 2.

This area is indicative to serve the purpose of site feasibility illustration and subject to the specific purpose of future residential development activities thereafter.

4. Access

Site access is provided by Settlers Way at the southern site boundary. Internal site access will be established with a Right of Way (RoW) trending the boundary between proposed lots 1 and 2 to the eastern face of proposed lot 2.

4.1 Crossover and Driveways

The existing crossover/ROW onto the property is fit for purpose and shall be retained to continue to service the existing residence within proposed Lot 2. The proposed crossover/ROW serving Lot 1 will be via easement A crossing Lot 2 running parallel with the eastern boundary. This can be formed on acceptable gradients in accordance with FNDC Rule 15.1.6.1.2.

4.2 Parking and Manoeuvring

Parking and associated manoeuvring can be accommodated within the proposed lot 1.

4.3 Far North District Engineering Standards

The proposed access has been assessed for compliance with the Far North District Rules 15.1.6C 'Access' as follows:

Table 1.1 - Far North District Plan Rule 15.1.6.1.2 VEHICLE ACCESS

Rule		Applicability		
<p>15.1.6C.1.1 PRIVATE ACCESSWAY IN ALL ZONES</p> <p>(a) The construction of private accessway, in addition to the specifics also covered within this rule, is to be undertaken in accordance with Appendix 3B-1 in Part 4 of this Plan.</p> <p>(b) Minimum access widths and maximum centreline gradients, are set out in the Appendix 3B-1 table except that the grade shall be:</p> <table border="1"> <tr> <td>All urban zones; excluding the Commercial and Industrial</td> <td>No steeper than 1:8 adjacent to the road boundary for at least</td> </tr> </table>		All urban zones; excluding the Commercial and Industrial	No steeper than 1:8 adjacent to the road boundary for at least	(b) Carriageway widths comply with Appendix 3B-1
All urban zones; excluding the Commercial and Industrial	No steeper than 1:8 adjacent to the road boundary for at least			

Zones	5m	(c) Complies
Commercial and Industrial Zones	No steeper than 1:20 adjacent to the road boundary for a length of at least 6m.	
<p>(c) A private accessway may serve a maximum of 8 household equivalents.</p> <p>(d) Where a subdivision serves 9 or more sites, access shall be by public road.</p> <p>(e) Access shall not be permitted:</p> <ul style="list-style-type: none"> (i) onto a State Highway or a Limited Access Road; (ii) onto an arterial or collector road within 90m of its intersection with an arterial road or a collector road; (iii) onto an arterial or collector road within 30m of its intersection with a local road; (iv) onto a local road within 30m of its intersection with an arterial or collector road; (v) onto Kerikeri Road (both sides of the road along the portion between Maraenui Drive and Cannon Drive). This rule does not apply to sites with lawfully established access points (as at 6 September 2001) onto Kerikeri Road. <p>[Notes on Limited Access Roads omitted]</p>		(d) N/A
15.1.6C.1.2 PRIVATE ACCESSWAYS IN URBAN ZONES		(a) The private accessway to service Lot 1 will serve one residential unit, have no restricted visibility, and will be less than 60m long.
(a) Private accessways in all urban zones, excluding the Commercial and Industrial Zones, shall comply with the following:		
Where: (i) The private accessway serves no more than four residential units; and (ii) Visibility is not restricted; and (iii) The access is less than 60m long; or 60m long or longer and passing bays are provided at intervals not exceeding 60m.	<p>The private accessway from the road boundary to any parking or loading space shall be:</p> <ul style="list-style-type: none"> • not less than 3m wide; and • a minimum overhead clearance of 4m. 	
Where any one of (i) through (iii) above are not complied with.	The private accessway shall be 5m wide.	
<p>Note 1: The entrance standards from the road shall comply with the entrance standards detailed in Rules 15.1.6C.1.4 and 15.1.6C.1.5, as applicable.</p>		(b) N/A
(b) Private accessways in the Commercial and Industrial Zones shall comply with the following:		

<p>(i) One-way operation, excluding service stations. Note: A one-way operation is a 3m wide private accessway that provides entry to the site at one point and exit from the site at a different point.</p>	<p>The private accessway from the road to any parking or loading space shall:</p> <ul style="list-style-type: none"> • not less than 3m or more than 4m in width; and • have a minimum overhead clearance of 4.2m.
<p>(ii) Two-way operation, excluding service stations. Note: A two-way operation is a 6m wide private accessway that provides entry and exit from the site at the same point.</p>	<p>The private accessway from the road to any parking or loading space shall:</p> <ul style="list-style-type: none"> • not be less than 6m or more than 7m in width; and • have a minimum overhead clearance of 4.2m
<p>(iii) Service stations</p>	<p>The private accessway from the road to any parking or loading space shall:</p> <ul style="list-style-type: none"> • have a maximum width for one-way and two-way operations of 9m; and • have a minimum overhead clearance of 4.2m.

(c) All private accessways in all urban zones which serve two or more activities are to be sealed or concreted.

(c) N/A

15.1.6C.1.3 PASSING BAYS ON PRIVATE ACCESSWAYS IN ALL ZONES

(a) Where required, passing bays on private accessways are to be at least 15m long and provide a minimum usable access width of 5.5m.

(b) Passing bays are required:

- (i) in rural and coastal zones at spacings not exceeding 100m;
- (ii) on all blind corners in all zones at locations where the horizontal and vertical alignment of the private accessway restricts the visibility.

(c) All accesses serving 2 or more sites shall provide passing bays and vehicle queuing space at the vehicle crossing to the legal road.

- (i) N/A
- (ii) No blind corners within the proposed or existing accessway.
- (iii) N/A - Each accessway will serve one property.

<p>15.1.6C.1.4 ACCESS OVER FOOTPATHS</p> <p>The following restrictions shall apply to vehicle access over footpaths:</p> <p>(a) no more than two crossings per site; and</p> <p>(b) the maximum width of a crossing shall be:</p> <table border="1" data-bbox="203 373 1000 499"> <tr> <td>All activities; except service stations</td> <td>6m</td> </tr> <tr> <td>Service stations or supermarkets</td> <td>9m</td> </tr> </table> <p>Note: Consideration should be given to the location of crossings and the potential for signage to ensure pedestrian safety.</p>	All activities; except service stations	6m	Service stations or supermarkets	9m	N/A - no footpath present
All activities; except service stations	6m				
Service stations or supermarkets	9m				
<p>15.1.6C.1.5 VEHICLE CROSSING STANDARDS IN RURAL AND COASTAL ZONES</p> <p>(a) Private access off roads in the rural and coastal zones the vehicle crossing is to be constructed in accordance with Council's "Engineering Standards and Guidelines" (June 2004 – Revised 2009).</p> <p>(b) Where the access is off a sealed road, the vehicle crossing plus splays shall be surfaced with permanent impermeable surfacing for at least the first 5m from the road carriageway or up to the road boundary, whichever is the lesser.</p> <p>(c) Where the vehicle crossing serves two or more properties the private accessway is to be 6m wide and is to extend for a minimum distance of 6m from the edge of the carriageway.</p> <p>Note 1: Refer to Appendix 3G for a visual representation of what a vehicle crossing is and how it works in relation to a private access.</p>	N/A - Property is zoned Residential (Urban Zone).				
<p>15.1.6C.1.6 VEHICLE CROSSING STANDARDS IN URBAN ZONES</p> <p>(a) Private access off streets in the urban zones the vehicle crossing is to be constructed in accordance with Council's "Engineering Standards and Guidelines" (June 2004 – Revised 2009).</p> <p>(b) Where the vehicle crossing serves two or more properties the vehicle crossing is to be widened to provide a double width vehicle crossing.</p> <p>Note 1: Refer to Appendix 3G for a visual representation of what a vehicle crossing is and how it works in relation to a private access.</p>	(b) N/A - Each vehicle crossing will serve one property each.				
<p>15.1.6C.1.7 GENERAL ACCESS STANDARDS</p> <p>(a) Provision shall be made such that there is no need for vehicles to reverse off a site except where there are less than 4 parking spaces gaining access from a local road.</p> <p>(b) All bends and corners on the private accessway are to be constructed to allow for the passage of a Heavy Rigid Vehicle.</p> <p>(c) Any access where legal width exceeds formation requirements shall have surplus areas (where legal width is wider than the formation) grassed.</p> <p>(d) Runoff from impermeable surfaces shall, wherever practicable, be directed to grass swales and/or shall be managed in such a way as will reduce the volume and rate of stormwater runoff and contaminant loads.</p>	<p>(a) N/A</p> <p>(b) N/A</p> <p>(c) N/A</p> <p>(d) Generally above ground as sheetflow and the rest onto Settlers Way curbed channels as appropriate.</p>				

<p>15.1.6C.1.8 FRONTAGE TO EXISTING ROADS</p> <p>(a) Where any proposed subdivision has frontage to a road or roads that do not meet the legal road width standards specified by the Council in its “Engineering Standards and Guidelines” (June 2004 – Revised 2009), road widening shall be vested in the name of the Council.</p> <p>(b) Where any proposed subdivision has frontage to a road or roads that are not constructed to the standards specified by the Council in its “Engineering Standards and Guidelines” (June 2004 – Revised 2009), then the applicant shall complete the required improvements.</p> <p>(c) Where a site has more than one road frontage or frontage to a service lane or right-of-way (ROW) in addition to a road frontage, access to the site shall be in a place that:</p> <p>(i) facilitates passing traffic, entering and exiting traffic, pedestrian traffic and the intended use of the site;</p> <p>(ii) is from the road or service lane or ROW that carries the lesser volume of traffic.</p> <p>(d) Where any proposed subdivision has frontage to a road on which the carriageway encroaches, or is close to the subject lot or lots, the encroachment or land shall vest in Council such that either the minimum berm width between the kerb or road edge and the boundary is 2m or the boundary is at least 6m from the centreline of the road whichever is the greater.</p>	<p>(a) N/A</p> <p>(b) N/A</p> <p>(c) N/A</p> <p>(d) N/A</p>
<p>15.1.6C.1.9 NEW ROADS</p> <p>All new public roads shall be laid out, constructed and vested in accordance with the standards set out in the Council’s “Engineering Standards and Guidelines” (June 2004 – Revised 2009).</p> <p>Note: Refer also to the Designation and Utility Services rules within Chapter 17.</p>	<p>N/A</p>
<p>15.1.6C.1.10 SERVICE LANES, CYCLE AND PEDESTRIAN ACCESSWAYS</p> <p>(a) Service lanes, cycle and pedestrian accessways shall be laid out and vested in accordance with the standards set out in the Council’s “Engineering Standards and Guidelines” (June 2004 – Revised 2009).</p> <p>(b) All access reserved for pedestrians only shall be a footpath, formed and concreted (or an alternative surface) to Councils satisfaction.</p>	<p>N/A</p>
<p>15.1.6C.1.11 ROAD DESIGNATIONS</p> <p>Where any frontage to an existing road is shown on the Zone Maps as being subject to designation for road acquisition and widening purposes, provision shall be made to enable the Requiring Authority to acquire such land, by separately defining the parcels of land. Where the Requiring Authority is not in a position to acquire such parcels immediately, they shall be held in conjunction with adjoining land, with consent notices registered in accordance with Rule 13.6.7.</p>	<p>N/A</p>

5. Cultural Landscape

In this instance points to the direct anthropogenic effects upon the natural landscape over a time period. A desk study of historic aerial photos were reviewed in light of this undertaking.

5.1 Land Use

Predominantly, the subject land use is residential within the adjoining properties as the primary activity.

5.2 Infrastructures

Far North District Council (FNDC) GIS mapping indicates that no existing wastewater infrastructure is present within Settlers Way; however infrastructure for stormwater and potable water are present. This report has been prepared with the goal of the subdivision being self-sufficient for the purpose of wastewater and stormwater management.

5.3 Population and Settlement

The cross section below attempts to show the human occupation and spread of settlement within a 1.90km run [left to right] relative to the property. The wider farmland estates (A & C) feature widely within the surrounding area and in this instance can be viewed as the primary land use in the locale.

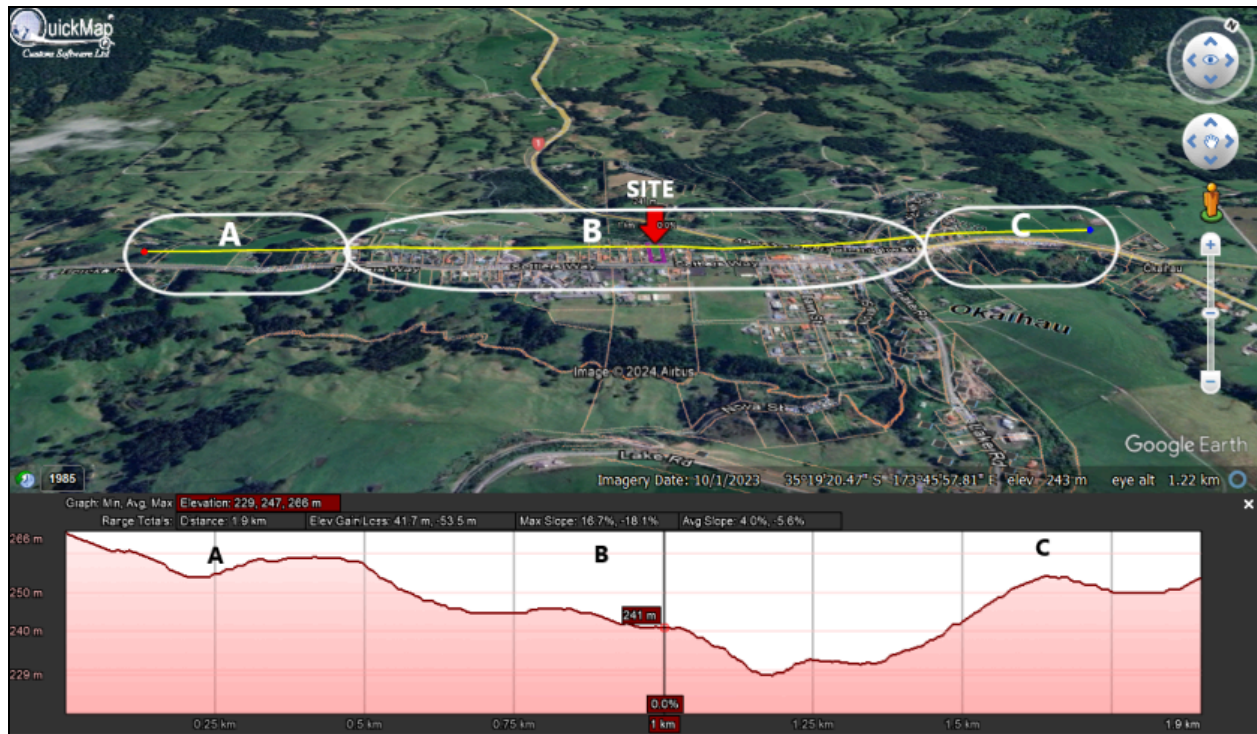


Figure 4 - Settlement Cross Section Map (maps adapted from Quick Map Enterprises and Google Earth Maps).

Table below presents further details with respect to the annotations within the former.

Table 1.2 - Processes and Settlement Cluster

	A	B	C	
Processes	Rural Settlement	Dominant Residential [Proposed Subdivision]		
		CBD		
Periphery				Centre
Patterns	Low density rural living residents	Higher density residential living		

6. Geomorphology

The property is mapped within the most extensive lava field in the far north covering a 500km² area which extends from the south of Kaikohe to Takou Bay. Steep bluffs characterise the edge of the plateaus.

Geological maps show the local volcanic plateau is underlain by *Greywacke* sandstone [and *marine shales*] that is thick sequenced-interbedded and is thought to have derived from the *erosion* of rapidly rising fold mountains and is itself deformed in the later stages of the orogeny.

The greatest volume of lava is preserved in a series of overlapping flows, some with intervening soil horizons that form an extensive, eroded basalt surface north of Kaikohe. Some of the oldest rocks of the Kaikohe-Bay of Islands field form small intrusive plugs or isolated ridge-top remnants, mainly in the northwest.

The overlying plateau in this case constitutes remnants of the older eroded flows [*Pvb*]

These *erosion resistant* igneous rocks form the high standing and typically steep sided massifs include the former and Ahipara, Warawara nd Waima Ranges.

It is considered that land instability within these highly competent units generally arise from strong *igneous rocks* overlying weakly to moderately indurated sedimentary rocks. Such failures are common in bluffs bounding lava flows that cap hills of Northland Allochthon or other soft sedimentary rocks

Most volcanic rocks are hard to very hard and have high strengths in their unaltered and unweathered state. They are commonly fractured or jointed, with columnar jointing developed in some rocks.

It shall be noted that trigger mechanisms are independent of the natural formation of the geological features in context of the adverse behaviour where noted/encountered within these units.

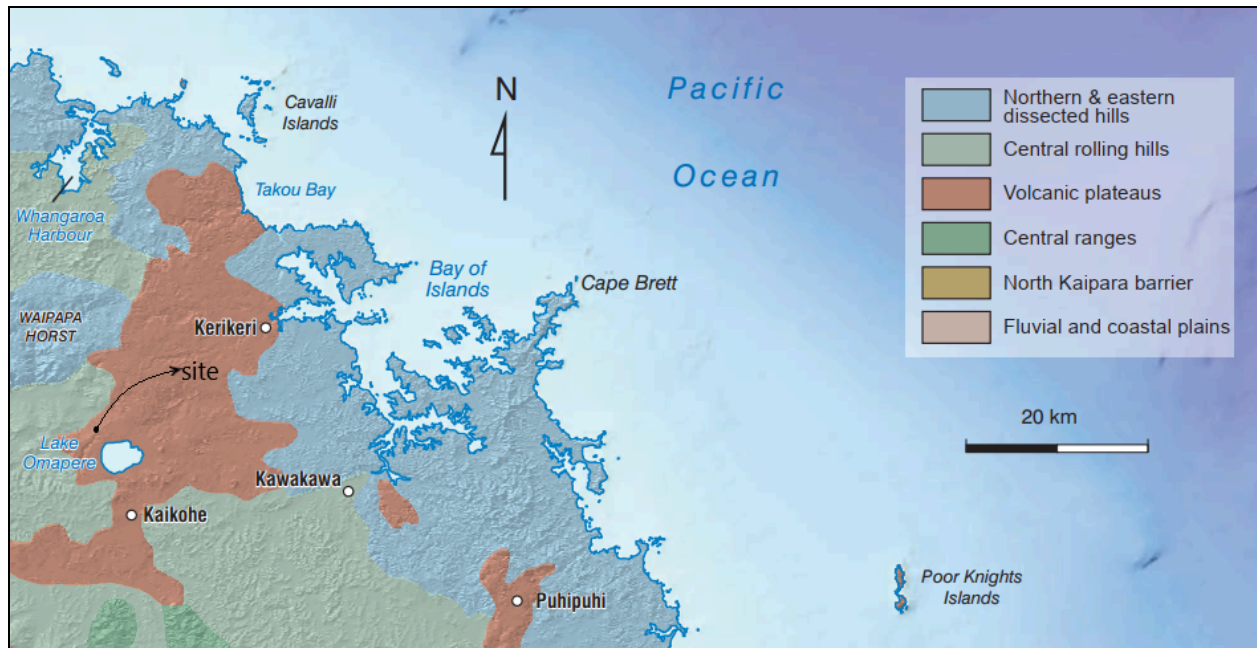


Figure 5 - Geomorphological features (adapted from Geology of the Kaitiaki Area. Institute of Geological & Nuclear Sciences; 1: 250,000 geological map 1. Lower Hutt, New Zealand.).

The physical landscape in situ can be envisioned that it was once [young age] all connected i.e. the lower plains as fringing moderate declines to that of the overarching headlands at present. However, [storm] water can be accredited as the primary agent [amongst other influencing forces] in shaping the land over time and to date.

7. Geology

The geological information on hand indicates that the site is underlain by Kerikeri Volcanic (Pvb); basalt lava, volcanic plugs and minor tuff.

The geology map below is presented on a regional scale and careful consideration shall be of high regard in relative application of referencing and professional judgements expressed in context to specific sites.

Reference:

Geology of the Whangarei Area. Institute of Geological & Nuclear Sciences; 1: 250,000 geological map 2. Lower Hutt, New Zealand.

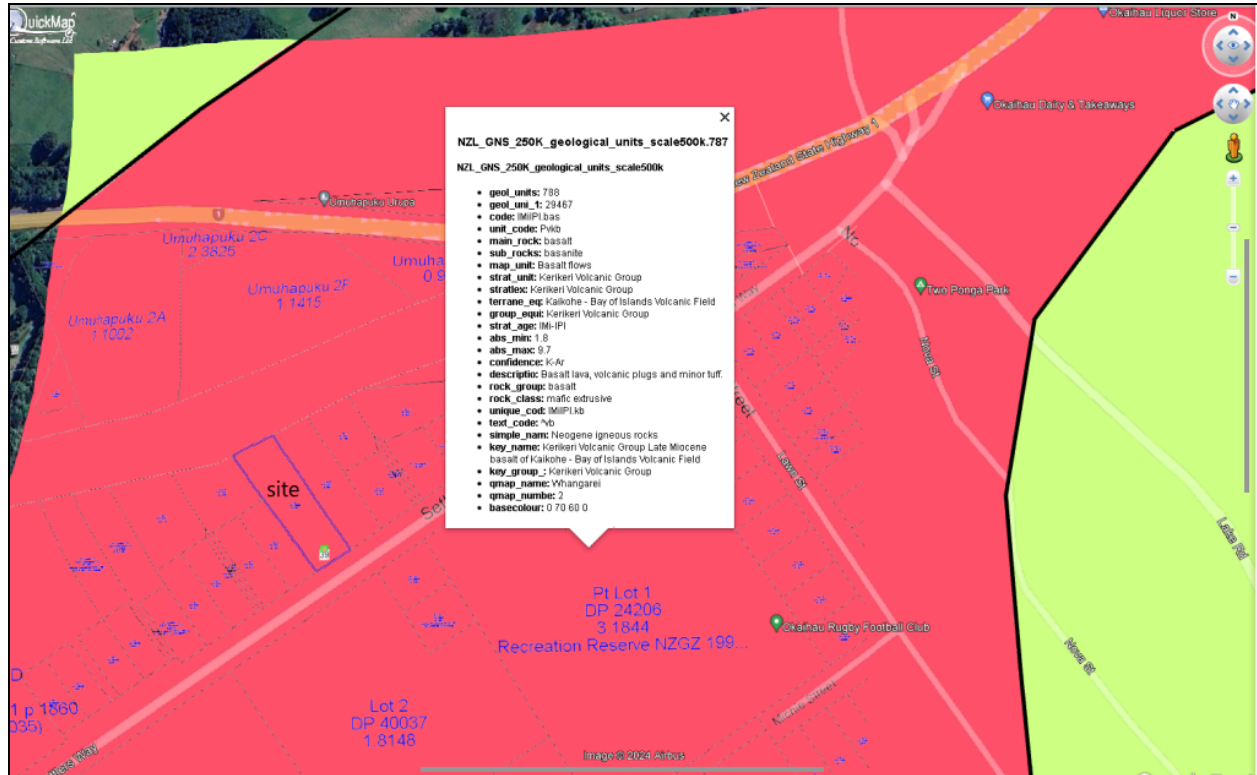


Figure 6 - Geology Units Map - site in purple outline (maps adapted from Quick Map Enterprises and Google Earth Maps).

8. Lithology

The underlain lithology is Basalt (F6₂) i.e. flows and cones of very fine to medium grained crystalline basalt. Surfaces form terraces and plateaus and generally without rocky outcrops. Dense and moderately fractured; hard to very hard. Weathered to soft red brown or dark grey brown clay to depths of 20m with many rounded corestones.

Reference:

Geology of the Whangarei Area. Institute of Geological & Nuclear Sciences; 1: 250,000 geological map 2. Lower Hutt, New Zealand.

NZMS Sheet 290 P04/05, 1:100,000 scale map, Edition 1, 1982: "Whangaroa-Kaikohe" (Rocks).

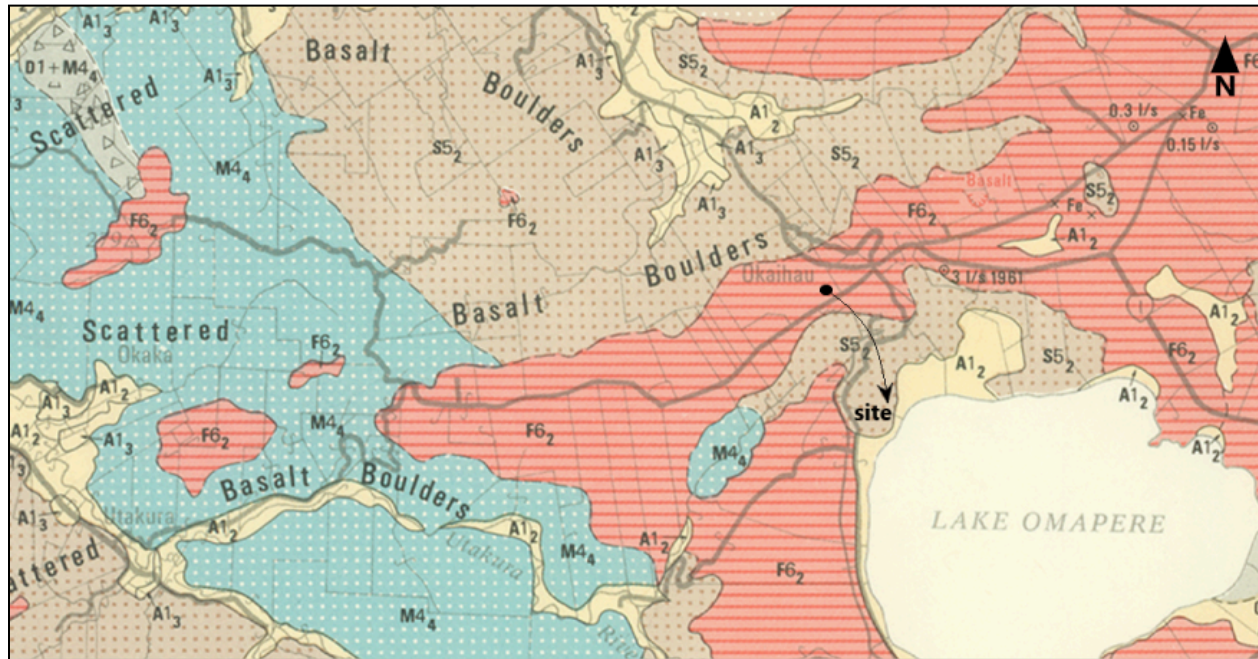


Figure 7 - Lithology Map - (NZMS Sheet 290 P 04/05, 1:100,000 scale map, Edition 1, 1981: "Whangaroa Kaiakohe" (Rocks).

9. Subsoils

LandCare Research indicates the soils encountered here as Orthic Oxidic [XO]. These clayey soils result from the weathering of andesite, dolerite or basalt rock or ash over extensive periods of time. They cover 1% of New Zealand and are known only in the Auckland and Far North Region.

9.1 Oxidic Soils [X]

Contain appreciable amounts of iron and aluminium oxides well-developed, relatively stable structure. Clay contents are high, ranging from 50 to 90%. Soil water deficits are common in summer.

Oxidic soils are strongly weathered and clays have low cation exchange capacity at the natural pH of the soil. These soils have *slow permeability*.

More reference can be noted that these are soils of the Rolling and Hill lands i.e. Waiotu friable clay (YOH) - *imperfectly drained*.

All in all it can be concluded that the soils encountered here more greatly reflect the historical effects of local conditions.

Reference

Manaaki Whenua LandCare Research: New Zealand Soil Classification (NZSC) - Soil Order.

New Zealand Land Inventory - NZMS Sheet 290 P 04/05, 1:100,000 scale map, Edition 1, 1980: "Whangaroa-Kaikohē" (Soils).

10. Environmental Setting

Published environmental data relating to the site has been reviewed. A summary of relevant information is provided below.

10.1 Hydrology and Flooding

A summary of available information pertaining to hydrology and hydrogeology is presented in the table below. An examination of Far North District Council (FNDC) and Northland Regional Council (NRC) online GIS databases is included.

Table 1.3 – Surface Water Features & Flooding

Source	Presence/Location	Comments
Groundwater sources including springs/wells (within 500 m)	Not known	
Surface Water Features (Ponds, Lakes etc)	Waikaraheke Stream south and east and tributaries to the Whakanekeneke Stream to the north and west.	The property is well away from these features.
Watercourses (within 500 m)	As mentioned above	
Flood Risk Status	None recorded	The NRC and FNDC GIS databases indicate that the site is not included within the area that has been modelled for flood hazard events. The high relief of the property dictates less than minor risk to flooding.
Flood Susceptibility	Negligible	Flood susceptible land is mapped according to the presence of alluvial, fluvial deposited soils indicating historic inundation by flood waters. From available geological mapping it is considered superficial soils are not present within the site boundaries.

The natural landscape, and outstanding land features presented in this natural state environment shall be regenerated/maintained [continuously] with respect to the ongoing Overall Proposal Outcome (OPO)^{2*}.

² OPO - *Balancing Sustainability of Life in all aspects.*



Figure 8 - Supporting Water Bodies Location Plan (maps adapted from NRC Natural Hazards Map).

10.2 Natural Hazards

10.2.1 Regulatory Framework

Under Section 2 of the Resource Management Act 1991, natural hazard means any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.

10.2.2 River Flood Hazard

Upon review of the Northland Regional Council Hazards maps, it indicates the subject property as not being within a flood extent area. As depicted in Figure 9 below.



Figure 9 - Natural Hazards Map (maps adapted from NRC Natural Hazards Map).

Natural hazards listed in Section 71(3) of the Building Act 2004 include: erosion, falling debris, subsidence, inundation or slippage.

Susceptibility assessment of the subject property to these potential hazards were judged as;

Table 1.4 – Natural Hazard

Potential Hazards Assessed	
Erosion (including coastal erosion, bank erosion, and sheet erosion)	No*
Falling debris (including soil, rock, snow, and ice)	No*
Subsidence (vertical settlement)	No*
Inundation (including flooding, overland flow, storm surge, tidal effects, and ponding)	No
Slippage	No*

*not encountered/observed during the site walkover.

11. Preliminary Field Investigations

Our fieldwork for this report was carried out on 20 December 2023 and consisted of:

- 2 Hand Augured boreholes down to refusal depths of 3.00 metres.
- Vane shear tests were undertaken at 0.30m increments to full drilled depths.
- Visual observation of the site, adjoining lower lying land with respect to land fretting features.

The test locations are shown on the borehole location plan below. Results of all in-situ soil tests together with detailed descriptions of the soils encountered during drilling can be found in Appendix 2.

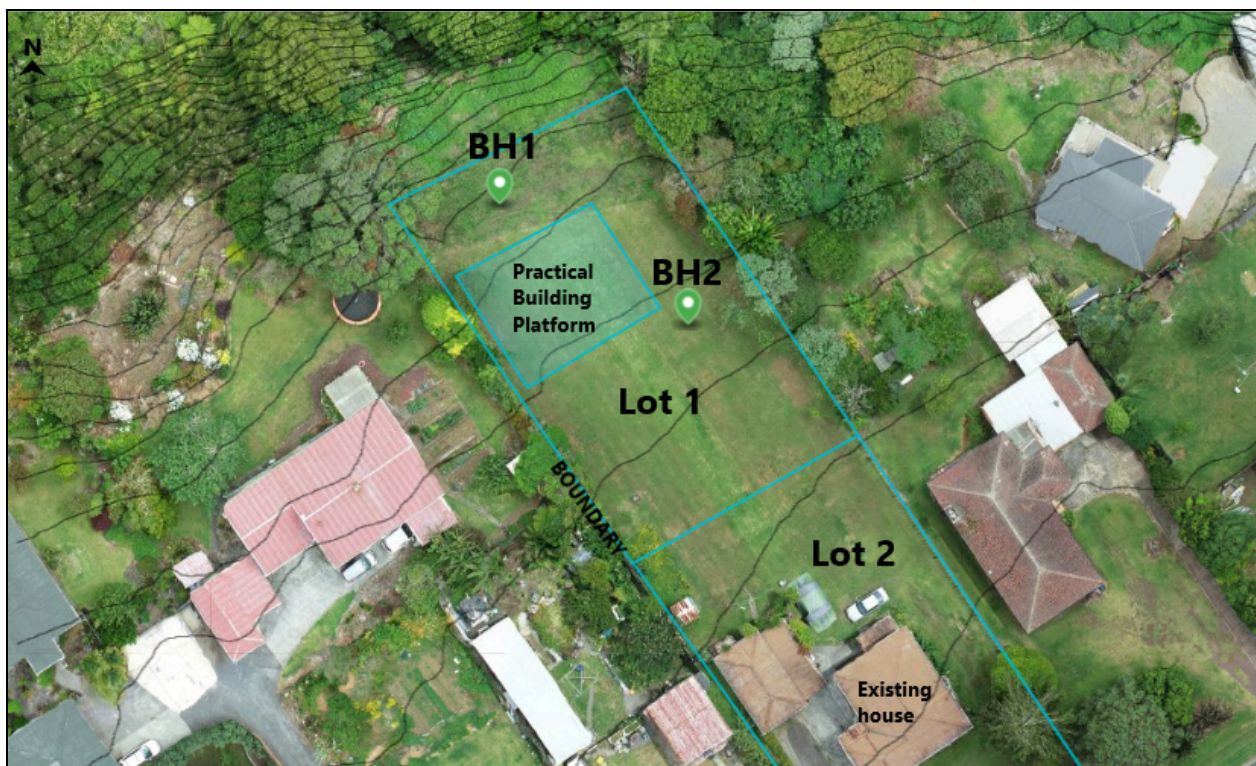


Figure 10 - Borehole Location Plan (maps adapted from Scheme Plan and DroneX Aerial Survey).

The nominated development site is gentle sloping and restricted within this space. Land was noted to be generally stable; as **no signs** of *mobile ground* and *tension cracks* were encountered during this time.

The dominant occupation of established/regenerative native vegetation/trees within the bounding steep adjoining properties readily provides a critical equalizer to the collective land sustainability.

Global land instability in this case is considered low.

No saturated or boggy ground was encountered within the nominated build area during the site visit. The depths of strata and groundwater [where encountered] on the logs are recorded from ground level.

12. Summary of Bored Ground Conditions

12.1 Topsoil

Observed as silty clay and dark brown with minor rootlets (approximately) 0.20 - 0.30 metres thick.

12.2 B Horizon

The natural (cohesive) subsoils encountered generally comprise very stiff, reddish brown - brown and highly plastic. At depths ≥ 1.50 metres, soils showed grey speckles with pockets of fine to medium subrounded gravels. As depicted in Figure 11.



Figure 11 - Natural Soils - (adapted from DroneX survey).

12.3 Filled Ground

Was not encountered. However, the aerial survey undertaken indicates an effluent trench south-north which implicates the nominated buildable area indicated for proposed Lot 1 [as depicted below]. The land application identified shall be decommissioned following the subdivision.

This ground condition shall be accounted for within the foundation design of the future home as appropriate. Refer to section 15.4 for further discussion.



Figure 12 - Existing land application (map adapted from DroneX Aerial Map).

12.4 Groundwater Conditions

The groundwater table was not encountered within the drilled boreholes. Potential moisture fluctuation within the shallow upper layer of the soil mantle can be expected during drier and wetter periods of the year.

On the contrary, complete saturation is considered less likely due to the prominent relief of the land as well as the low permeability of the upper subsurface cemented mantle as encountered.

The geological features which highly influence infiltration are highly varied over an outcrop and likely so from one to another. Therefore, a uniform distribution and infiltration of rain is highly *unlikely* and the consequent rise in water-table will be greater in some places than others.

Accordingly, the favourable relief and supporting service infrastructures dictates that full saturation of the subsoil mass within and close vicinity of the building platforms can be considered *low*. Inevitably, the majority shall sheetflow north away from the effective sites.

All in all, the heavy presence of bush cover within the supporting flanks dictates an equilibrate mechanism for overland flows and steady state moisture conditions within the mantle.

12.5 Primary Flow Paths [PFP]

Stormwater currently drains as a sheet flow in a northerly direction, to a well vegetated gully.

The heavy presence of native bush and vegetation will stop sediments and slow water flows at peak storm events.

Water will eventually flow westwards through the natural flow paths. As depicted (aqua arrows) in Figure 13 below.



Figure 13 - Surface Flow Path (map adapted from DroneX Aerial Map).

13. Discussion on Subground Conditions

Our preliminary field test results indicate an average soil strength of approximately $\geq 100\text{kPa}$.

13.1 Corrected Vane Shear Readings

Corrected vane shear readings recorded within the bored test holes were in the order of $\geq 199\text{ kPa}$.

It shall be appreciated that field data used were deduced from limited test positions and may vary from that described. As a consequence, ground characteristic anomalies can potentially be encountered i.e. big corestones were observed protruding out onto the surface within the steeper bank to the north of the periphery land.

Field results are indicative of 'good ground' bearing capacity for shallow foundations in accordance with Building Code for Standard Foundations - NZS 3604:2011³.

However, reactive soils are excluded from the aforementioned standard and shall therefore be considered carefully at development stage as appropriate.

³Section 3.13.

13.2 Subsoil Properties

The tabulated data below is based on our experience and laboratory testing undertaken of similar soils previously.

Table 1.5 – Residual Soil Workability Data

Soil Description	Proctor Compaction		Permeability @ Proctor Maximum compaction [mm/hr]
	Maximum dry density [T/m ³]	Optimum mixture content [%]	
Silty CLAY	1.84 ± 0.02	14.7 ± 0.3	0.01 ± 0.007

The above data shall be used as a guide only. In the case where the subsoils onsite is intended for fill material then samples from the site shall undergo laboratory testing prior earthwork commencing.

14. Discussion on Subsoil Classification

14.1 Expansive Soils

Plastic soils found collectively throughout this region have an expansive nature and tendency to shrink and swell. This phenomenon is common with these soils (where encountered) throughout the Northland region, particularly when these soils are subject to seasonal volume changes caused by wetting and drying.

Technically, expansive soils are defined in NZS 3604 as those soils having a liquid limit of more than 50% and a linear shrinkage of more than 15%. The site can be designated as Class S [M].

It shall be appreciated that the weathering nature of the mapped geologies, lithologies and hosting environment dictates that resultant minerals constitute minor reactive minerals with respect to non rapid influences from varied moisture conditions.

Reference:

A.S. 2870, “Residential Slab and Footings - Construction”.

NZS 3604, “Timber Framed Buildings”

Geology of the Kaitaia Area. Institute of Geological & Nuclear Sciences; 1: 250,000 geological map 1.

NZMS Sheet 290 O 04/04 part sheet O 03, 1:100,000 scale map, Edition 1, 1982: “Kaitaia-Rawene” (Rocks).

15. Geotechnical Appraisal

15.1 Site Background

The property is currently established with an existing residential dwelling and associated outbuilding/shed. The existing residential development is accessed from Settlers Way at the southern boundary with a single driveway trending north to the existing structures scheduled to be re-used as part of the proposed RoW for Lot 2.

15.2 Nominated House Site - Lot 1

Comprise gentle slopes [4°] descending northward toward the lower lying neighbouring bushland. The developable area nominated had been placed to allow a sufficient setback from the moderately steep bank [a few meters beyond the property boundary north].

Refer to the Annotations Report - Appendix A 1285/01

15.3 Foundations

House plans and construction of the future dwelling in Lot 1 has not been finalised. It is understood from our Client; a suspended floor on timber piles is the preferred system. Minor earthworks will be required to create a level platform; all excess topsoil not retained onsite shall be taken off site.

Residual soils ≥ 0.3 m below the current ground level were shown to have adequate bearing capacity i.e. minimum ultimate bearing capacity in the order of ≥ 300 kPa. A strength reduction factor [ϕ_s] of 0.5 shall be applied for the design bearing strength.

15.4 Bridging Piles

Where piles are within close vicinity to the existing effluent trench onsite. That is, any section of the building located within a 45° zone rising from the invert of the drain. SED shall comply with current FNDC Engineering Standards.

15.5 Subgrade Preparation and Protection

At this point in time, it is expected within the hardstanding and driveway only. The work shall comprise;

1. Stripping off of all topsoil and other deleterious material and stockpiling it away from the work area.
2. Engineer to observe the final subgrade on natural ground and proof roll.
3. GAP 40 covering layer max 0.125m thick spread evenly across the stripped area to provide cover from the elements.

Stripping shall extend one meter outside of the effective work perimeter.

All in all, no signs of land instability were observed during our time onsite.

16. Geological Appraisal of Land Stability and Natural Hazards

16.1 General Account

Of the property seeks within reason the sustainability of the land and geological aspects with respect to any standing or notable natural hazards that may undermine its standing integrity. As well, minimal ground impact from human living activities and the natural elements. All in all, cumulative equilibrium coexistence.

16.2 Geological Fault Lines/Surface Ruptures

Reviewed geological maps show NO fault lines through or nearby the general property. Seismic activity within the region is generally low. It was noted during our site walkover that minor [historic] shallow scarps were not encountered within the wider areas.

Moreover, no signs of active deep seated instability or relics were encountered.

Recent movement as a direct result of fault line activity within close vicinity to the subject were not observed. All in all, we consider that any risk pertaining to fault line/surface ruptures to be low at this site.

16.3 Slope Instability

No evidence of hummocky or tension cracks were encountered upon the landform at present.

This generally proves fundamental stability of the land. In this case, confidence impresses a positive assurance that;

- The natural subsoils bored were in a very stiff state.
- Full saturation is highly unlikely due to the favourable topography of the land and easy draining subsoil characteristics.
- The resident home and land infrastructures; established some decades previous showed no evidence of damage due to land movement.
- Chemical weathering of the soils accelerates cementation varying within the shallow mantle which restricts deep infiltration from surface water.
- More competent basalt [corestones] and residual soils underlying the property.
- Established natives occupying the bounding steep grade [north] readily sustains **land resilience** in this case.

Consequently, we consider that a low risk of slope instability can be sustained within the nominated developable area. The impact of slope movement shall likely not impact the proposed project nor is the proposed development likely to effect slope instability at this stage.

However, subject/not limited to adhering to the recommendations provided herein. All future land developments within the subsequent Lot shall undergo rigorous planning and feasibility of application assessment in specific context to the effective site and proposal.

16.4 Influence of Topography

Has a significant and consistent effect on the weathering process and consequently on the type of minerals formed. Hilly countries [like the exhibit] soils i.e. more granular constituents; are well drained and seepage flows have a strong downward element.

As understood, this brings forth the formation of *low activity* clay minerals i.e. kaolinite⁴ specifically. Soils comprising these minerals generally have *good engineering properties*.

16.5 Reactive Subsurface Soils

Based on the underlying geology mapped, it is considered that the residual soils encountered on site may become *moderately* reactive if/where they are rapidly exposed [open cuts/scraping] to the elements.

Where undisturbed, the soils are considered *slightly* reactive based on our experience of the area.

16.6 Flooding

The effective sites are well elevated and therefore risk of flooding is low. Referenced in Appendix A - 1285/05.

Reference:

Manaaki Whenua LandCare Research: New Zealand Soil Classification (NZSC) - Soil Order.

Geology of the Kaitaia Area. Institute of Geological & Nuclear Sciences; 1: 250,000 geological map 1.

NZMS Sheet 290 O 04/04 part sheet O 03, 1:100,000 scale map, Edition 1, 1982: "Kaitaia-Rawene" (Rocks).

17. Engineering Recommendations

Our assessments of the natural hazards and geomorphology relative to the site indicates that associated risks to LIFE and Property in this instance can be considered *low*. Provided that recommendations herein/not limited to are adopted in application of residential implementations.

17.1 Building Platform

Enabling work is considered minimal based on the current proposed lot size and established homes adjoining the property. The following sections present preliminary engineering guidance to effective planning action for such undertaking.

17.2 Restricted Building Line

Is indicated within the cross-section which shall allow sufficient setback from the steep bank constituting the wider terrain 8m north of the Lot 1 boundary [north].

⁴ formed by the alteration of ALKALI FELDSPAR and other aluminium bearing minerals.

17.3 Filling near Slopes

Shall not be undertaken, specifically within the designated Restricted Build area.

17.4 Fills

Shall not be undertaken unless prior SED and appraisal of the proposal development and site is completed and approved by Far North District Council at such time. All work shall comply with NZS 4404, NZS 4402 and NZS 4431 as appropriate.

17.5 Site Landscaping and Contouring

Shall stay true to the natural fall of the land at present. Critically, foundation ground shall adopt final grades away from building foundations to convey surface water runoff away from this area.

17.6 Access Road

All works that may be required shall be conducted in accordance with the FNDC Engineering Standards and related documents/codes.

Base metal shall be placed on cleared ground i.e. stripped topsoil and deleterious material down to natural clays.

The existing access way is well established and therefore requires minimal/no further work in service to this purpose.

17.7 Fill Monitoring Compaction tests

All monitoring shall be carried out by suitably qualified engineer familiar with this report/site.

Table 1.6 – Compaction Test Schedule

Field Compaction Tests	Non Cohesive Material	Cohesive Fill Material
In-situ density	Minimum average of 98% of MDD as determined by heavy compaction test.	Minimum average of 95% of MDD as determined by standard compaction test.
Clegg Hammer	Hardfill minimum average CIV = 25. Minimum single value 20	n/a
Air voids	n/a	Max single value ≤ 12% average 5 consecutive tests ≤ 10%

17.8 Stormwater Runoff

From resident implementations i.e. roofs, concrete driveways shall be contained and dissipated into the complementing natural flow path systems readily serving the collective estate and surrounding areas.

17.9 Ground Bearing Benchmark

Founding ground where subject to future building development shall sustain a minimum ultimate bearing strength capacity of 300 kPa [vertical loads only]. Foundations shall be embedded adequately to account for the expansive nature of the soils where encountered.

A conservative angle of shearing resistance Φ' of 30° and cohesion c' of 5 kPa can be assumed at shallow founding depths based on a characteristic corrected undrained shear strength of ≥ 199 kPa can be assumed within the natural Silty CLAY layer.

17.10 Liquefaction Potential

In light of a detailed liquefaction potential assessment was outside the scope of this undertaking. However, the general rating of seismic activity within the Far North is *low*.

Potentially liquefiable materials are identified by;

- Cohesive [fines] content i.e. highly cohesive aggregates are less susceptible to liquefaction
- Plasticity Index
- Groundwater levels
- Thickness of potentially liquefiable soils
- Amplitude, frequency content and duration of shaking expected during seismic events.

All in all, it can be concluded that the proposed building platforms are low-negligible during [IF] a seismic event up to 0.11 g PGA as anticipated for Northland inside NZS 1170 and within tolerable settlement limits set by the NZBC.

18. Conclusion

The effective land is in a *stable state*.

The primary objective for subsequent development following, shall seek to sustain the land in this context during and after the establishment of occupational assets.

All development works intended specifically for the proposed lots, shall NOT be undertaken prior to a site specific geotechnical appraisal being carried out with due regard to the development and present site conditions.

Consequently, good sound engineering practices through means of extensive and conscientiously executing field observations during and after construction is prudent here.

19. Stormwater Management

19.1 General Suitability

The subdivision will maintain less intensive human activity whilst upholding the natural settings of the land. Currently, the site drainage is by general surface runoff following the natural topography of the site, the collective subdivision is well equipped with established primary flow paths.

These natural features are populated with established adequate outfalls, vegetation and readily provide an established low impact and sustainable stormwater management approach in this instance.

Any adverse effects as a result of future residential dwellings to be erected within the nominated areas of these proposed lots are considered less than minor.

Accordingly, the proposed moderately minor lots shall be considered under general site and future development feasibility with primary regard to the FNDC Plan - 13.7.3.4 Stormwater Disposal.

It is recommended that a site specific analysis of post development against pre development [equilibrate state currently] conditions for the proposed lots are accounted for at building consent stage when an intended purpose of a proposed development plan is decided upon.

However, the PFPs shall be well incorporated within the stormwater management system in balancing service of the collective subdivision and future occupational activities anticipated from the proposed lots.

19.2 Stormwater Management Principles

On-site stormwater management is to be carried out in accordance with Clause E1 of the building code compliance documents. The performance requirements are as follows;

- That a primary system capable of disposal of surface water resulting from a storm having a 10 % (1 in 10 year) probability of occurring annually, shall be constructed.
- That all stormwater reticulation and disposal systems are constructed to convey surface water to an appropriate outfall using gravity flow, and in a manner which avoids the likelihood of blockages, leakage, penetration by roots, or the entry of groundwater where pipes or lined channels are used and avoids the likelihood of damage from superimposed loads or normal ground movements.
- For piped systems, accessible inspection chambers are provided at all changes of grade, direction and pipe size.
- That the reticulation and disposal system is designed and constructed for a function design life of 50 years.
- That damage to the environment both during and after the development construction phase is minimised or avoided.
- That a system is provided which can be economically maintained.

19.3 Impermeable Surfaces

Impermeable surfaces are defined by FNDC as;

- (a) decks (including decks less than 1 m in height above the ground) excluding open slatted decks where there are gaps between the boards;*
- (b) pools, but does not include pools designed to operate as a detention pond;*
- (c) any surfaced area used for parking, maneuvering, access or loading of motor vehicles, including areas covered with aggregate;*
- (d) areas that are paved with concrete, asphalt, open jointed slabs, bricks, gobi or materials with similar properties to those listed;*
- (e) roof coverage area on plan;*
- But excludes:*
- i. Water storage tanks occupying up to a maximum cumulative area of 20 m²; and*
 - ii. Paths and paving less than 1 m wide, provided they are separated from other Impermeable Surfaces by a minimum of 1 m.*

20. Land Resilience

Subsequent development intended for future occupation shall derive from the viewpoint of low impact development and extensive consideration of anticipated future activities in favour of land functional resilience.

In this case, the significant flora occupation within the neighbouring properties readily sustains and shall enforce land resilience.

20.1 Water Sensitive Land (WSL)

The hydrological cycle [HC] stipulates the likely movement of water through the environment i.e. rainfall, infiltrating to groundwater, flowing towards streams, evaporating to cloud systems and so on. As it moves through the environment, water interacts with the environment.

Figure 14 below depicts the interactive state of the stormwater cycle through the green environment proposed for the primary flow paths and critical areas within the united property.

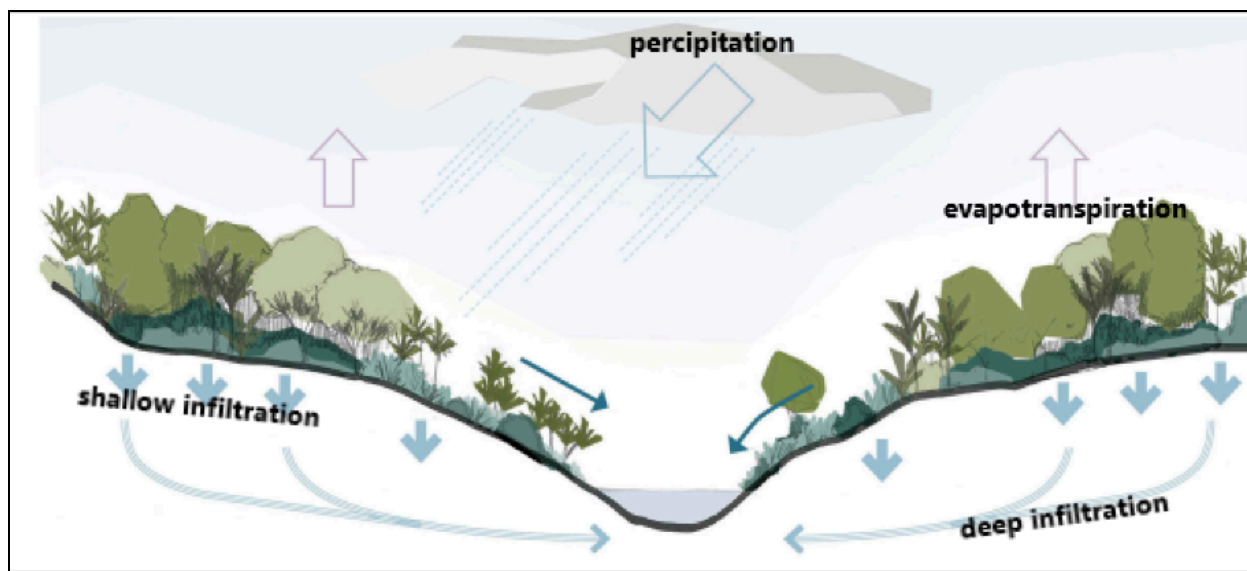


Figure 14 - HC Plan - (illustrative cross sectional adaptation of the RPP).

Trees intercept rainfall, soil and humus layer attenuate stormwater runoff and infiltrate it into the ground and terrestrial and aquatic vegetation captures and transpires water back to the atmosphere. As depicted in Figure 14 above.

Added Value of WSD to;

20.2 Regional Infrastructure

Enhances protection of contact recreation in our rivers and harbours. Likewise, water quality through low impact stormwater treatment practices.

Reference: Water Sensitive Design for Stormwater - Guideline Document 004, March 2015.

20.3 Positive Effects

The cumulative impact of the existing flora occupation driven from a WSL approach, has a significant effect on the health of freshwater and marine receiving environments. It also enhances a riparian buffer zone which acts as biological filters between catchment and receiving environments.

At large, stormwater runoff is slowed down and filtered with direct uptake and transformation of contaminants by plants.

The natural landscape, and primary flow path [PFP] features presented in this natural state environment shall be regenerated with respect to the ongoing Overall Proposal Outcome (OPO)⁵. The homogenous hydraulic morphology in this instance dictates a LIDA approach.

⁵ OPO - Regenerative effects to the Environment and Sustainable living in All aspects.

The Scheme Plan provides an adequate subdivision of the proposed lots and allowable land spaces which in effect can sustain an envisioned intimate living. It is recommended that due care is exhausted in;

- **P**lanning and creating of future developments thereafter with great regard to minimal impact to the natural environment.
- **C**onsciously choosing sustainable practices and applications that can utilise natural energy.
- **C**ontinuous maintenance and regenerative planting within sensitive areas to sustain a direct passive equilibrium to LIFE in all aspects.

The intent to regenerate native vegetation within the proposed Lot boundaries shall constitute a natural equilibrium to the flow of energy and materials into and out of the environmental system.

The intent of occupational living shall apply the Minimal Impact of daily LIFE in all aspects.

21. Regulatory Framework

21.1 Far North District Plan

The site is within the Residential zone. The relevant stormwater management/impermeable surface rules are as follows:

Permitted stormwater management activities;

7.6.5.1.6 STORMWATER MANAGEMENT

The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 50%.

The intent of the application is to comply with NRC permitted activity rules Section 21: Rules for Stormwater Discharges and to satisfy FNDC criteria for a permitted activity consent application.

The proposed subdivision provides for, but does not include residential development. It is anticipated that houses when they are built will be of a similar scale to the existing residential development on other residential land in the area.

Proposed Lot 2 comprises the established home, with impermeable surfaces covering 14.5% of the total site area. The percentage of impermeable surfaces on Lot 2 will increase because the lot size will be reduced. That is, the existing total impermeables over the proposed total Lot 2 area of 1,130m².

Typical impermeable surfaces on Lot 1 [adopted from Lot 2] when developed are estimated as follows:

Table 1.7 – Typical On Development - lot Impermeable Surfaces

Impermeable Surface	Lot 2	Lot 1
Driveway/Parking	122	122
Roof	135	240*
Shed	70	-
Deck/paths	-	-
Total Impermeable	327	362
Lot Area	1,130	1,121
Percentage Impermeable	29%	32%

* the roof area adopted equals the average roof in proposed Lot 2 and Lot 6 DP 34311.

Future developments on Lot 1 are not expected to exceed the permitted activity rule unless larger scale developments are proposed and the total impermeable surfaces exceed the 50% impermeable allowance.

21.2 Regional Water and Soil Plan for Northland

Rule 21.1.1 provides for the discharge of stormwater where the stormwater collection system is connected to, or part of, a stormwater system for which a resource consent exists. The proposed subdivision will not connect to a consented stormwater system, so Rule 21.01.01 does not apply.

Rule 21.1.2 provides, as a permitted activity, for:

'The diversion and discharge of stormwater, not otherwise permitted by Rule 21.01.01, by way of an open constructed stormwater collection system or piped stormwater collection system into water or onto or into land where it may enter water is a permitted activity, provided the following conditions are complied with:

(a) For new subdivision and development, the best practicable option for on-site stormwater disposal shall be identified and incorporated into the stormwater management design to avoid or minimise changes to stormwater flows after development for the 1 in 5 year return period storm event.

(b) Where the diversion and/or discharge drains a hazardous substance storage area: ...

(c) Where the diversion and/or discharge drains an industrial or trade premise: ...

(d) The stormwater collection system is designed to cater for stormwater flows resulting from not less than a 1 in 5 year return period storm event and a stabilised overland flow path is provided for to allow flows up to and including a 1 in 50 year storm event in excess of the capacity of the primary collection system.

(e) For discharges to water, the discharge does not:

(i) Increase the natural temperature of the receiving water by more than 3° Celsius at or beyond a 20 metre radius from the discharge point.

(ii) Cause the pH of the receiving water to fall outside of the range 6.5 to 9 at or beyond a 20 metre radius of the discharge point.

(iii) Cause the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials in the receiving water at or beyond a 20 metre radius of the discharge point.

(iv) cause any emission of objectionable odour in the receiving water at or beyond a 20 metre radius of the discharge point.

(v) contain more than:

- 20 g/m³ of total petroleum hydrocarbons
- 10 mg/m³ of total copper
- 10 mg/m³ of total lead
- 100 mg/m³ of total zinc
- 100 g/m³ of suspended solids.

(f) The discharge does not cause scour or erosion of the beds or banks of the receiving water body.

(g) For diversion and/or discharges onto or into land, stormwater quality control measures or treatment systems such as silt, oil and grease traps are incorporated to minimise the level of contaminants prior to final disposal.

(h) The stormwater management or treatment systems, and any associated works or equipment shall be operated and maintained in an effective operating condition.

(i) The diversion and/or discharge does not cause flooding of adjacent properties

Future development of both Lots can comply with Rule 22.01.02.

21.3 Proposed Regional Plan for Northland

The Northland Regional Council is reviewing its Regional Plans and a Proposed Regional Plan for Northland was notified in October 2023.

Proposed Rule C6.4.2 provides for the diversion and discharge of stormwater from outside a public stormwater network provided (amongst other conditions);

2) the diversion and discharge does not cause or increase flooding of land outside the area serviced by the stormwater network up to the 10 percent annual exceedance probability or flooding of buildings outside the area serviced by the network up to the one percent annual exceedance probability, and ...

Drainage from the site is via sheet flow north and into the natural watercourses. There are no buildings or land at risk of increased flooding from stormwater discharges from the Site.

All in all, we consider that future development of Lot 1 can comply with Rule C6.4.2 with low impact stormwater management systems.

21.4 Stormwater Management

Stormwater runoff from future roof areas on Lot 1 will be collected in water tanks for domestic water supply. The overflow from the water tanks shall be discharged in a dispersive manner well away from buildings. Ground scour of land can then be considered nulled.

Similarly, stormwater from future driveway and parking / manoeuvring areas on all Lots shall be channelled toward the valleys or along the natural PFPs within the respective allotments.

21.5 Conclusion

It is considered that NO change in the existing stormwater flow paths i.e. primary flow paths shall result from the subdivision.

- Primarily, the prominent flow paths and supporting water features shall be incorporated and progressively maintained continuously to generate a sustainable equilibrium to the environment and LIFE.
- Water tanks shall be used to collect roof water runoff and serve to provide potable water.
- Roof tank overflow, together with yard and driveway runoff, shall where possible be directed to the existing flow paths through a dispersive device.

It is recommended that careful consideration/planning is exhausted with regard to Minimal Impact Footprint (MIF) of future developments hereon. As appropriate, site specific stormwater runoff effects and management applications shall be considered at such time where a development is proposed with plans depicting roof areas and other impermeable surfaces as well as the extent of the development earthworks are known for each specific Lot.

Particular reference/review shall be undertaken of this appraisal in conjunction with conducting the former. This shall provide further background information specific to the sites and existing environment conditions relative to this point in time.

All in all, the property and existing natural landscapes can sustain the proposal subject to careful planning and balancing effects of imposed activities and hosting environments. Therefore, a Low Impact Design Approach (LIDA) for stormwater management shall be the cornerstone philosophy for this development proposal.

As a consequence, sustainable effects to the environment and LIFE can be fulfilled.

22. Assessment Criteria

Stormwater management has been assessed against the Assessment Criteria in Section 13.10.4:

Table 1.8 - Far North District Plan Section 13.10.4 Assessment Criteria

Criterion	Comment
(a) Whether the application complies with any regional rules relating to any water or discharge permits required under the Act, and with any resource consent issued to the District Council in relation to any urban drainage area stormwater management plan or similar plan.	The proposed stormwater management complies with Regional Water and Soil Plan permitted activity rules.
(b) Whether the application complies with the provisions of the Council's "Engineering Standards and Guidelines" (2004) - Revised March 2009 (to be used in conjunction with NZS 4404:2004).	The proposed stormwater management complies with Council's "Engineering Standards" (May 2023).
(c) Whether the application complies with the Far North District Council Strategic Plan - Drainage.	The proposed stormwater management complies with Far North District Council Strategic Plan - Drainage rules.
(d) The degree to which Low Impact Design principles have been used to reduce site impermeability and to retain natural permeable areas.	Natural PFPs that are present on site shall be utilised. The subdivision poses minor changes to the current lands with reduced site impermeability. Therefore, natural permeable areas are retained.
(e) The adequacy of the proposed means of disposing of collected stormwater from the roof of all potential or existing buildings and from all impervious surfaces.	Run-off from the roof can be dispersed to the present natural flow paths.
(f) The adequacy of any proposed means for screening out litter, the capture of chemical spillages, the containment of contamination from roads and paved areas, and of siltation.	Stormwater control practices have been designed in accordance with the TP10 publication. The existing features, as aforementioned, readily provide mitigation.
(g) The practicality of retaining open natural waterway systems for stormwater disposal in preference to piped or canal systems and adverse effects on existing waterways.	The outstanding natural water features and supporting table drains shall be readily incorporated for stormwater management in service of the collective subdivision.
(h) Whether there is sufficient capacity available in the Council's outfall stormwater system to cater for increased run-off from the proposed allotments.	Proposed lots are not connected to the Council's stormwater system. Increased runoff from the subdivision are less than minor.
(i) Where an existing outfall is not capable of accepting increased run-off, the adequacy of proposals and solutions for disposing of run-off.	Analysis of post-development flows to pre-development levels at building consent stage. The overall proposal scheme is adequate.
(j) The necessity to provide on-site retention basins to contain surface run-off where the capacity of the	The existing natural stormwater features cater for this. The subdivision will not increase the

outfall is incapable of accepting flows, and where the outfall has limited capacity, any need to restrict the rate of discharge from the subdivision to the same rate of discharge that existed on the land before the subdivision takes place.	rate of discharge, however the incorporation of a low impact approach i.e. water tanks and established flora occupation will slow discharge rates during peak stormwater flows.
(k) Any adverse effects of the proposed subdivision on drainage to, or from, adjoining properties and mitigation measures proposed to control any adverse effects.	None.
(l) In accordance with sustainable management practices, the importance of disposing of stormwater by way of gravity pipelines. However, where topography dictates that this is not possible, the adequacy of proposed pumping stations put forward as a satisfactory alternative.	N/A
(m) The extent to which it is proposed to fill contrary to the natural fall of the country to obtain gravity outfall; the practicality of obtaining easements through adjoining owners' land to other outfall systems; and whether filling or pumping may constitute a satisfactory alternative.	Natural flow paths will be maintained.
(n) For stormwater pipes and open waterway systems, the provision of appropriate easements in favour of either the registered user or in the case of the Council, easements in gross, to be shown on the survey plan for the subdivision, including private connections passing over other land protected by easements in favour of the user.	Stormwater will be managed within each Lot.
(o) Where an easement is defined as a line, being the centre line of a pipe already laid, the effect of any alteration of its size and the need to create a new easement.	N/A
(p) For any stormwater outfall pipeline through a reserve, the prior consent of the Council, and the need for an appropriate easement.	N/A
(q) The need for and extent of any financial contributions to achieve the above matters.	N/A
(r) The need for a local purpose reserve to be set aside and vested in the Council as a site for any public utility required to be provided.	N/A

23. On-site Effluent Disposal

23.1 Summary of Regulatory Issues

Proposed Regional Plan for Northland (RPN) and Far North District Plan

The discharge of sewage effluent onto land is controlled by and should comply with the permitted activity rules C.6.1.3 of the Proposed Regional Plan for Northland (RPN), including;

- The volume of wastewater discharged does not exceed two cubic metres per day.
- The slope of the disposal area is not to exceed 25 degrees.
- Special provisions apply to disposal area slopes greater than 10 degrees.

The effluent disposal systems will need to be sited to avoid surface runoff and natural seepage from adjacent land, or protected by using interception drains. The disposal areas may need to be mounded above the surrounding land to ensure that the lowest point in the field complies with the Proposed Regional Plan for Northland and Far North District Plan (FNDP) rules:

- Not less than 1.2 m above the winter groundwater table for primary treated effluent and;
- Not less than 0.6 m above the winter groundwater table for secondary treated effluent.

The disposal field also needs to have minimum separation distances from watercourses and boundaries as follows (RPN Rule C6.1.3):

- Not less than 5 m from an identified stormwater flow path (including a formed road with kerb and channel, and water-table drain) that is down-slope of the disposal area.
- Not less than 20 m from any surface water for primary treated effluent.
- Not less than 15 m from any surface water for secondary treated effluent.
- Not less than 20 m from any existing groundwater bore located on any other property.
- Not less than 1.5 m from a boundary.

The Proposed Regional Plan for Northland defines "Surface Water" as: All water, flowing or not, above the ground. It includes water in a continuously or intermittently flowing river, an artificial watercourse, an overland flow path, and a lake and or wetland; water impounded by a structure such as a dam; and water that inundates land during flood events. It does not include water in any form while in a pipe, tank or cistern.

Surface water, as defined in NZS1547:2012, refers to: any fresh water or geothermal water in a river, lake, stream, or wetland that may be permanently or intermittently flowing. Surface water also includes water in the coastal marine area and water in man-made drains, channels, and dams unless these are purposed to

specifically divert surface water away from the land application area. Surface water excludes any water in a pipe or tank.

Northland Regional Council (NRC) has concluded that, to be a permitted activity, secondary treated wastewater is to achieve a 15m setback from the 20 year ARI flood event. This is derived from Auckland Council (AC) Technical Publication (TP) 58, where it is recommended that secondary treated effluent is disposed of to ground outside of the 20 year ARI, with a further factor of safety applied being NRC's surface water setback requirement.

The following analysis ensures that the proposed on-site wastewater disposal to service the development complies with both the operative and proposed wastewater discharge rules.

24. Existing System

Servicing the existing dwelling [Lot 2] is understood to be fully operational as proposed and is contained wholly within the current boundaries.

The proposal undermines the available space for land application post subdivision stage therefore, it is proposed that land application for both lots shall be placed within the adjoining Lot 1 of the subdivision of Lot 1 DP 527697.

An easement shall be created within the proposed scheme plan in favour of the proposed lots.

For proposed Lot 1; a typical three bedroom home is adopted. Five occupancies shall generate a total effluent of 725 L/d. Utilising a daily infiltration rate of 4mm/day gives a primary land application area of $181 + 100\%$ reserve = 362m^2 . The allowable area of 580m^2 indicated in figure 16 allows provision for future development on this allotment where a proposed home were to be up to 5 bedrooms.

All in all, due to the uncertainty of the future development size in Lot 1 in this regard; The allocated area can cater for up to five bedrooms

The existing house within proposed Lot 2 will not change at post subdivision stage and therefore shall constitute the feasibility hereon.

25. Design Population and System Flow Volumes

25.1 Design Occupancy Rating

It has been assumed for the purpose of this site feasibility appraisal that a five bedroom residential dwelling is adopted. In reference to TP58 Section 6.3.1, it is recommended that the design occupancy of eight people is therefore adopted.

25.2 Source of Water Supply

Water is to be sourced from the reticulated water supply. Flow reduction fittings may be used, but this cannot be assumed in assessing potential wastewater flows.

25.3 Design Flow Volumes

It is assumed that the house is to be fitted with standard water fixtures. Note: standard water fixtures are defined in TP58 as “Household with 11/5.5 or 6/3 flush toilet(s) and standard fixtures, low water use dishwasher and NO garbage grinder”. Water supply is from roof water. The associated wastewater flow allowance is 145 litres/person/day.

Total daily wastewater generation of the proposed development is calculated as follows;

$$\begin{aligned}
 \text{Design wastewater generation rate} &= \text{Design occupancy number} \times \text{per capita design flow} \\
 &= 8 \text{ persons} \times 145 \text{ litres/person/day} \\
 &= 1,160 \text{ litres/day}
 \end{aligned}$$

A design flow of 1,160 litres per day shall be adopted for the purpose of this report.

26. Design for Land Application System

26.1 Dripper Line Irrigation

There is sufficient land area available for land application of effluent disposal via a dripline system (plus 100% reserve area) on Lot 1 of the subdivision of Lot 1 DP 527697.

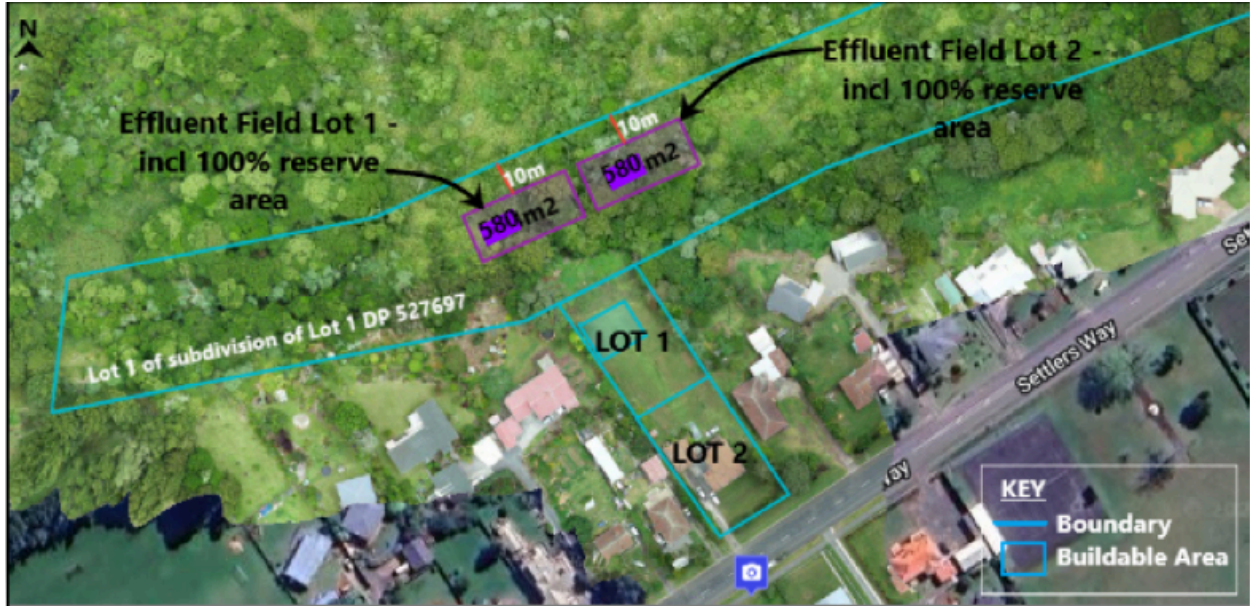


Figure 16 - Effluent Field location plan - (Adapted from DroneX Aerial Survey).

The use of trickle irrigation disposal is sustainable for the very long term. It provides less footprint on the environment and an efficient system for distributing effluent;

- Over a much wider area;
- At an application rate low enough to be sustained by evapotranspiration without reliance on soakage, and;
- Without unduly disturbing the visual effect of the proposed land disposal area and landscaped gardens;
- Hydration for the gardens over the summer months.

26.2 Land Application System Location

The maximum slope angle for drip irrigation land disposal systems according to TP58 guidelines is 25°. The slopes within the nominated effluent field area average 14°.

The effluent disposal system will need to be sited to avoid surface runoff and natural seepage from higher ground, or protected by using interception drains. In addition, citing restrictions listed in this report will need to be adhered to, to ensure a suitable setback from the identified overland flow paths, boundaries and buildings.

26.3 Land Application System Sizing and Design

The soils across the site were found to be TP58 category 5 or AS/NZS1547 category 4. For these soils we consider that surface or subsurface dripper lines are suitable. Dripper lines require secondary treated effluent to operate effectively. TP58 recommended a design irrigation rate for this soil of 4 mm/d.

The total length of the trickle irrigation system required (UniBioline or similar) is calculated as follows;

$$\begin{aligned} \text{Area of dripper irrigation field} &= \frac{\text{Total daily wastewater generation}}{\text{Design irrigation rate}} \\ &= \frac{1,160 \text{ litres/day}}{4 \text{ mm/day}} \\ &= 290 \text{ m}^2 \end{aligned}$$

Ample area for proposed locations has been allowed for within the allot dimensions (Refer Annotation Report, Appendix A 1285/01) however subject to a site specific appraisal at time of future residential development.

Surface dripper lines are to be covered with 150 mm topsoil or mulch and planted using evapotranspiration plants. A list of plants suitable for evapotranspiration systems is attached.

Access to the disposal area should be minimised by effective bordering with either vegetation or fencing.

The disposal field will be pressurised by a conventional system of using a pump. A filter is to be installed to prevent clogging of emitters. Flush/non-return valves shall be installed on all dripper lines.

26.4 Land Application System Reserve Area and Sizing

In accordance with FNDC requirements, there is space available for a 100% reserve effluent disposal area. The reserve field is required to cope with wastewater in the event of a system failure, or from underestimation of daily wastewater production.

26.5 Surface Cover of Nominated Land Application Area

That is most suitable in this case shall be dripper lines. Considering the significant presence of humus/organic matter ground surface cover within the hosting Lot, this application can provide adequate support with minimal impact and footprint.

26.6 Loading Method

The existing system is complemented with a pump chamber for treated effluent and is controlled by float switches/alarms which would operate the pumps on demand and alert the owners should system failure occur. No other means of control is necessary.

26.7 Factors for Safety

The major factor of safety is in treatment plant capacity. The standard treatment plants have at least 50 % spare capacity, in relation to the load from a normal 3-bedroom house. Safety factors exist for disposal by the presence of 100% reserve area.

27. Design for Treatment System

27.1 Parameters affecting choice of Treatment

- Certainty for long term sustainability;
- Minimal environmental effect.

27.2 Treatment Plant Design Sizing

The naming of a proprietary secondary treatment plant will be decided by the new owner at the building consent stage, when the position and scale of the building are known. Treatment plants must meet the requirements of AS/NZS 1546.3:2008.

The system is to meet the quality output of AS/NZS 1546.3:2008, producing effluent of less than 20 g/m³ of 5-day biochemical oxygen demand (BOD₅) and no greater than 30 g/m³ total suspended solids (TSS), capable of consistently treating 1,740 litres/day.

The treatment plant is to be installed to the manufacturer's specification and a commissioning certificate is to be provided as is standard practice. A maintenance agreement is also to be entered into as part of the Code Compliance application.

27.3 Siting Requirements

Restrictions on siting of secondary treatment plants are:

- Invert level at inlet not less than 0.5 m below floor level;
- Greater than 3.0 m from any house;
- Greater than 1.5 m from any boundary;
- Easily accessible for routine maintenance.

27.4 Summary of Design Issues

The treatment system should be located to allow for ease of drainage from wastewater fixtures and remain accessible for servicing and maintenance.

28. FNDC On-site Effluent Disposal Policy 2008

28.1 Likelihood of Failure/ Accidental Discharge

The likelihood of a discharge from a household secondary treatment plant is less than minor. The pipe work to and within the plant when correctly installed is robust with sealed connections and buried below ground reducing the risk of accidental damage. Only the puncture of a distribution pipe would allow treated effluent to escape in a concentrated manner.

28.2 Consequence of Failure/ Accidental Discharge

In the unlikely event of some form of failure/accidental discharge, the material would have to travel in excess of 15 m over ground to reach any surface water (adopting the NRC minimum requirement of 15 m from surface water). Most, if not all, of the accidental discharge is likely to be lost to soakage over this distance and the failure should quickly become apparent.

28.3 Vegetation Planting

Trickle irrigation disposal systems rely on evapotranspiration from sub-surface irrigated lawns or covered surface irrigated landscape planting. Where new planting is required, this must be in place prior for the evapotranspiration process to begin functioning.

28.4 Conclusion

As appropriate, a site specific onsite wastewater management system appraisal, effects and management applications shall be considered at such time where a development is proposed with a floor plan and the extent of the development earthworks are known for each specific Lot.

Subsequently, it is recommended that particular reference/review is undertaken of this appraisal in conjunction with conducting the former. This shall provide further background information specific to the sites and existing environment conditions relative to this point in time.

29. Assessment Criteria

Wastewater management has been assessed against the Assessment Criteria in Section 13.10.5:

Table 1.9 - Far North District Plan Section 13.10.5 Assessment Criteria

Criterion	Comment
(a) Whether the capacity, availability, and accessibility of the reticulated system is adequate to serve the proposed subdivision.	N/A.
(b) Whether the application includes the installation of all new reticulation, and complies with the provisions of the Council's "Engineering Standards and Guidelines"	N/A.

(2004) - Revised March 2009 (to be used in conjunction with NZS 4404:2004)	
(c) Whether the existing sanitary sewage disposal system, to which the outfall will be connected, has sufficient capacity to service the subdivision.	Onsite wastewater management system shall be utilised here.
(d) Whether a reticulated system with a gravity outfall is provided, and where it is impracticable to do so, whether it is feasible to provide alternative individual pump connections (with private rising mains), or new pumping stations, complete pressure, or vacuum systems. Note: Council consent to install private rising mains within legal roads will be required, under the Local Government Act.	N/A.
(e) Where a reticulated system is not available, or a connection is impractical, whether a suitable sewage treatment or other disposal systems is provided in accordance with regional rules or a discharge system in accordance with regional rules or a discharge permit issued by the Northland Regional Council.	Site specific (alternative) onsite wastewater management system is proposed.
(f) Where a reticulated system is not immediately available but is likely to be in the near future, whether a temporary system is appropriate. Note: Consent notices may be registered against Certificates of Title pursuant to Rule 13.6.7 requiring individual allotments to connect with the system when it does become available	N/A.
(g) Whether provision has been made by the applicant for monitoring mechanisms to ensure contaminants are not discharged into the environment from a suitable sewage treatment or other disposal system, together with any consent notices to ensure compliance.	As addressed at the building consent stage.
(h) Whether there is a need for, and the extent of, any development contributions to achieve the above matters	N/A.
(i) Whether there is a need for a local purpose reserve to be set aside and vested in the Council as a site for any public sewage utility for sanitary disposal purposes required to be provided.	N/A.
(j) Whether the subdivision represents the best practical option in respect of the provision that is made for the disposal of sewage and wastewater.	The proposal of an alternative wastewater management system in accordance with TP58 is considered adequate and appropriate in support of the proposed subdivision.

Appendix A – Drawings

Drawing No.	Title	Scale
1285/01	Annotation Report	NTS
1285/02	Elevation Map	-
1285/03	Cross Section A - A'	1:200
1285/04	<i>Thompson Survey</i> Proposed Subdivision Plan	1:500
1285/05	Natural Hazards Map	NTS

NTS – Not to Scale

1285/01 - Annotation Report;

Gumboots Consulting Engineers Ltd


Settlers Way, AM Annotation Report



Created on April 12, 2024

Captured on December 20, 2023



Point 

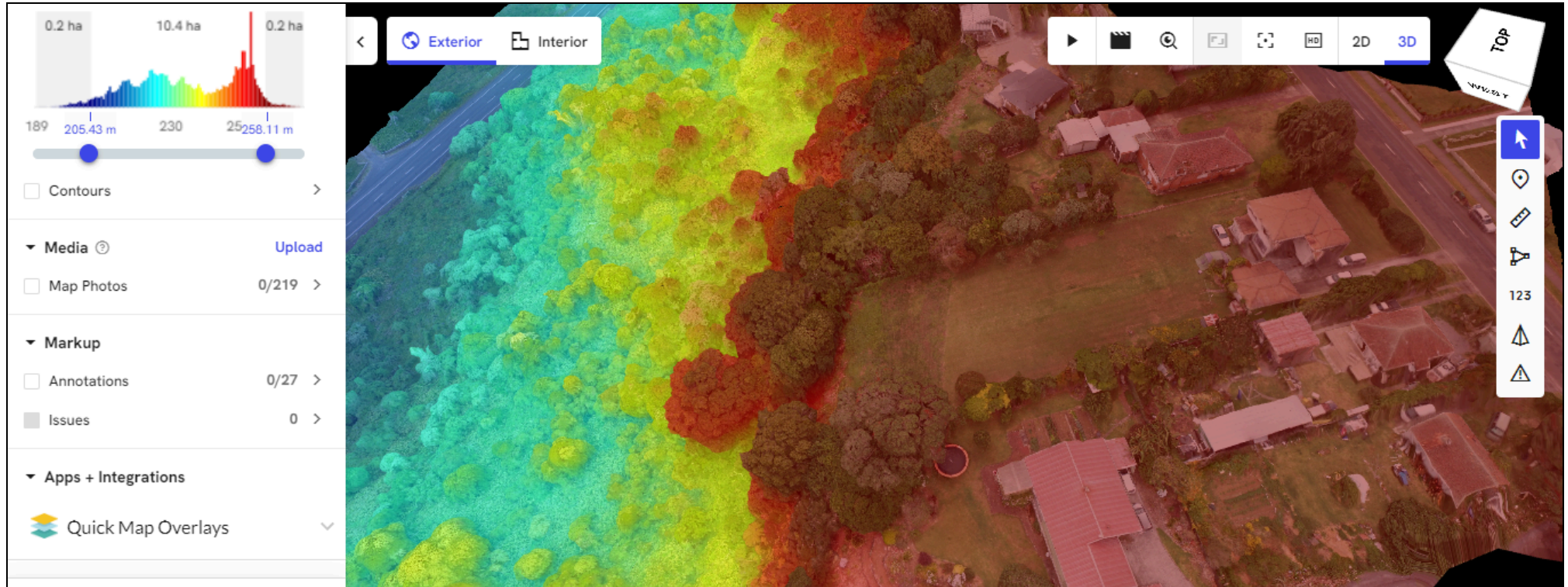
NZGD2000 / Mount Eden 2000 (metre)

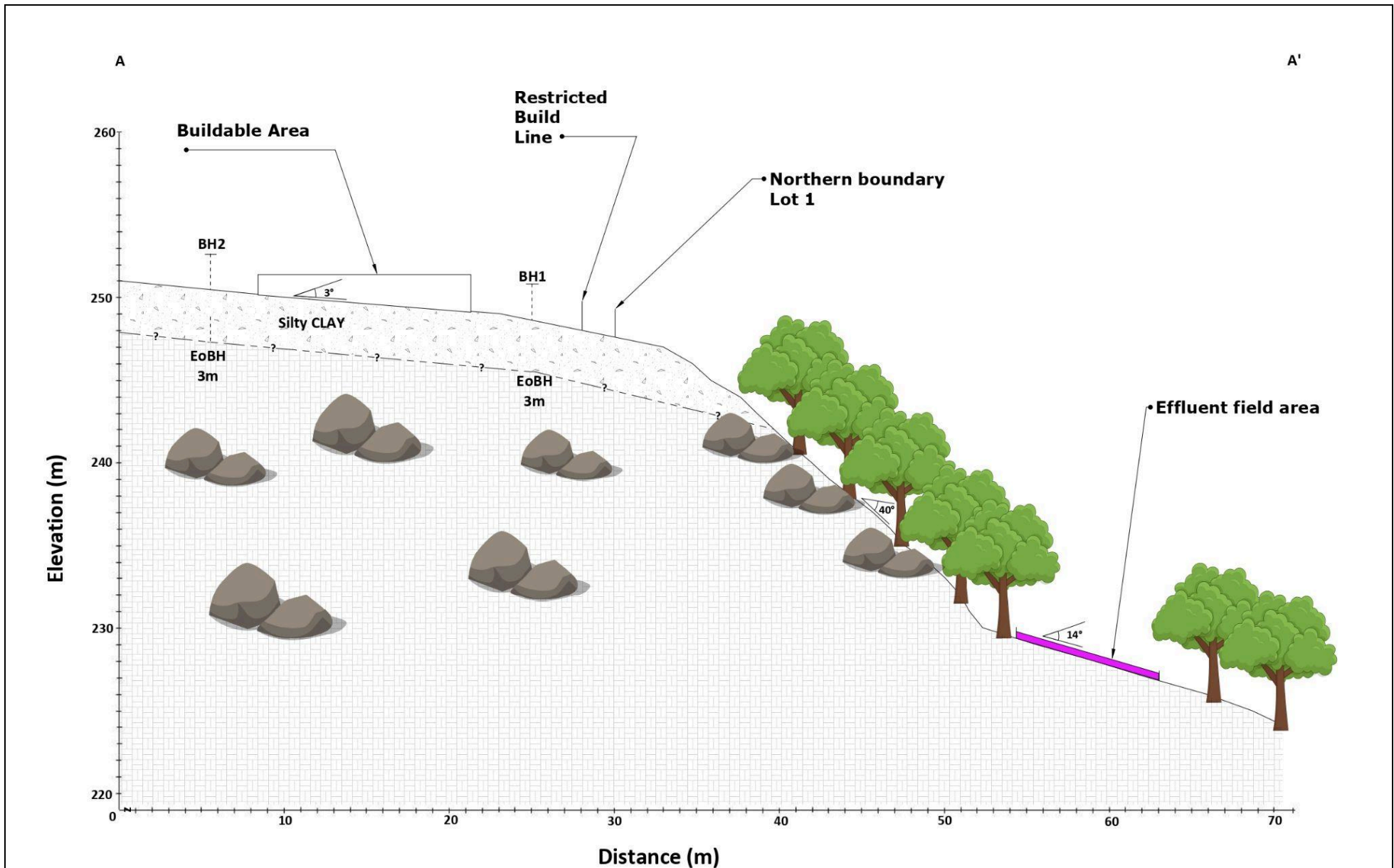
Label	Title	Elevation	Lat, Long	Northing, Easting
1	Existing house - Lot 2	260.30 m	-35.3224557, 173.7667079	972322.0 m, 309310.0 m
2	Existing shed Lot 2	256.55 m	-35.3224311, 173.7665610	972324.6 m, 309296.6 m
3	BH1	249.86 m	-35.3220037, 173.7662652	972371.7 m, 309269.2 m
4	BH2	251.87 m	-35.3221121, 173.7664731	972359.9 m, 309288.3 m
5	Effluent field Lot 1 corner #1	230.26 m	-35.3217729, 173.7657845	972396.9 m, 309225.3 m
6	Effluent field Lot 1 Corner #2	241.69 m	-35.3216309, 173.7661660	972412.1 m, 309259.8 m
7	Effluent field Lot 1 Corner #3	248.66 m	-35.3217680, 173.7662324	972397.8 m, 309266.0 m
8	Effluent field Lot 1 Corner #4	236.85 m	-35.3218998, 173.7658509	972382.8 m, 309231.5 m
9	Effluent field Lot 2 Corner #1	234.95 m	-35.3216197, 173.7662143	972414.3 m, 309264.2 m
10	Effluent field Lot 2 Corner #2	235.88 m	-35.3214775, 173.7665912	972430.4 m, 309298.3 m
11	Effluent field Lot 2 Corner #3	235.63 m	-35.3216039, 173.7666629	972416.4 m, 309305.0 m
12	Effluent field Lot 2 Corner #4	251.02 m	-35.3217456, 173.7662861	972400.4 m, 309270.9 m
13	Existing effluent corner #1	250.82 m	-35.3220493, 173.7663287	972366.7 m, 309275.1 m
14	Existing effluent corner #2	250.78 m	-35.3220336, 173.7663610	972368.5 m, 309278.0 m
15	Existing effluent corner #3	253.08 m	-35.3223147, 173.7665251	972337.4 m, 309293.2 m
16	Existing effluent corner #4	253.19 m	-35.3222987, 173.7665573	972339.2 m, 309296.1 m


Distance ↘						
Label	Title	Length	Horizontal	Vertical	Slope	Surface
17	Lot 2	139.36 m	139.05 m	0.08 m	0.04°, 0.06%	171.95 m
18	Lot 1	114.53 m	111.02 m	0.33 m	0.17°, 0.3%	166.44 m
19	Restricted Build Line - 10m from top of bank	27.57 m	27.04 m	-5.38 m	-11.25°, 19.89%	43.15 m
20	Setback from boundary - Min 1.2m	3.99 m	1.25 m	-3.79 m	-71.7°, 302.38%	5.05 m
21	House site gradient	13.74 m	13.69 m	1.13 m	4.73°, 8.28%	13.75 m
22	Cross Section A - A'	104.11 m	100.45 m	27.33 m	15.22°, 27.21%	177.44 m
23	10m Setbank from top of bank	10.04 m	9.60 m	2.93 m	16.97°, 30.51%	10.59 m
24	Boundary -	1.08 km	1.07 km	-0.01 m	0°, 0%	1.19 km
25	Setback - Effluent field Lot 2 to boundary north	9.41 m	9.41 m	-0.31 m	-1.89°, 3.3%	13.95 m
26	Setback - Effluent field Lot 1 to boundary North	10.59 m	10.27 m	2.57 m	14.03°, 25%	14.88 m

Area ↗					
Label	Title	Horizontal Length	Horizontal Width	Area	Surface Area
27	Buildable Area 200m2	--	--	199.95 m ²	218.77 m ²
28	Existing Roof	--	--	134.40 m ²	153.60 m ²
29	Existing Roof	--	--	70.59 m ²	79.37 m ²
30	Existing Driveway Lot 2	--	--	122.08 m ²	280.30 m ²
31	Adjoining Lot roof	--	--	280.05 m ²	338.05 m ²
32	Effluent Field Lot 2 (Incl 100% reserve area)	37.7 m	15.4 m	580.58 m ²	0.13 ha
33	Existing Effluent Field	3.5 m	34.4 m	118.79 m ²	123.56 m ²
34	Effluent Field Lot 1 (Incl 100% reserve area)	37.7 m	15.4 m	580.58 m ²	0.12 ha

1285/02 - Elevation Map





	Project Title: Subdivision of 39 Settlers Way	Drawing Title: Cross Section A - A'	Date: 25/02/24	Job No. 1285	Drawing based on the NRC LiDAR index tiles (2018 - 2019) for general indication of ground profile and DroneX map calibration only.
	Address: 39 Settlers Way, Okaihau	Client: Waihanga Okaihau Ltd	Scale: 1:200	Drawn By: KW	

1285/04 - Thompson Survey Proposed Subdivision Plan;



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Registered Land Surveyors, Planners & Land Development Consultants

PROPOSED SUBDIVISION OF LOT 1 DP 29956 & EASEMENT OVER LOT 1 DP 579128
PREPARED FOR: WAIHANGA OKAIHAU LTD

Name	Date	ORIGINAL SCALE	SHEET SIZE
Survey			
Design			
Drawn	KY 08.03.23	1:500	A3
Approved	KY 07.03.24		
Rev			


10469 Scheme 20240307

Surveyors Ref. No:
10469
Sheet 1 of 1










1285/05 - Natural Hazard Map;



Appendix B – Exploratory Borehole Records

191 Onekura Rd Kerikeri Bay of Islands New Zealand		<b style="font-size: 24pt;">GUMBOOTS CONSULTING ENGINEERS	Phone 0204 GUMMYS 022 187 9451 <small>www.gumbootconsultingengineers.co.nz gumbootsconsulting@gmail.com</small>
BOREHOLE LOG No. 1		Hole Location: Refer to Site Plan	JOB No. 12 85
CLIENT: Andy Meale	SITE: 39 Settlers Way, Okaihau.	DRILLING METHOD: Hand Auger	LOGGED BY: AK
Date Started: 20/12/2023	HOLE DIAMETER (mm): 50mm	LOGGED BY: AK	CHECKED BY: KW
Date Completed: 20/12/2023			

Soil Description <small>Based on NZGS Logging Guidelines 2005</small>	Depth (m)	Graphic Log	Geology	Water Level	Sensitivity	Corrected Shear Vane Strength (kPa)	Dynamic Cone Penetrometer (blows/100mm drop)	
TOPSOIL , silty clay, dark brown and damp.	0.0 - 0.1	[Symbol]						
Silty CLAY , reddish brown, very stiff, damp and high palsticity.	0.1 - 0.5	[Symbol]	Kerikeri Volcanic Group (Pvb).	NO Groundwater Encountered.		199		
brown, very stiff, damp and high plasticity.	0.5 - 1.0	[Symbol]			199			
inclusion of fine to medium sub rounded gravels	1.0 - 1.5	[Symbol]			199			
damp and very stiff	1.5 - 2.0	[Symbol]			199			
grey speckles of silt	2.0 - 2.5	[Symbol]			199			
light grey speckles	2.5 - 3.0	[Symbol]			199			
EOBH @ 3.0m.	3.0 - 3.5	[Symbol]						
	3.5 - 4.0	[Symbol]						
	4.0 - 4.5	[Symbol]						
	4.5 - 5.0	[Symbol]						

LEGEND							
 TOPSOIL	 CLAY	 SILT	 SAND	 GRAVEL	 FILL	 Corrected shear vane reading	 Remoulded shear vane reading
						 Scala Penetrometer	
UTP - Unable to Penetrate DCP - Dynamic Cone Penetrometer EOBH - End of Borehole EODCP - End of DCP		Notes - surface grade comprise good water shedding attributes.				Average Scala Blows 0.0 Average Soil Sensitivity 0.0	

Appendix C - Photos;

Photos 1-5 - Vegetation and floor covering within Lot 1 of the subdivision of Lot 1 DP 527697.



Photos 6-9 - Corestones observed within the steep bank wider south boundary of Lot 1 of the subdivision of Lot 1 DP 527697.



Appendix 5

Site Feasibility Appraisal