THOMSON SURVEY LIMITED

SURVEYORS AND RESOURCE PLANNERS

Our Reference: 10863.1 (FNDC)

24 February 2026

Resource Consents Department
Far North District Council
JB Centre
KERIKERI

Dear Sir/Madam

RE: Proposed Subdivision at 19 Martin Road, Omapere – K Atkinson

I am pleased to submit application on behalf of Kirsty Atkinson, for a proposed subdivision of land at 19 Martin Road, Omapere, zoned Coastal Residential. The application is a discretionary activity.

The application fee of $3,044 has been paid separately via direct credit.

Regards

Lynley Newport
Senior Planner
THOMSON SURVEY LTD

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

Te Kaunihera o Te Hiku o te Ika
Far North District Council

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 Covnsent 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
◯ Consent under National Environmental Standard (e.g. Assessing and Managing Contaminants in Soil)
◯ Discharge
◯ Change of Consent Notice (s.221(3))
◯ Extension of time (s.125)
◯ Other (please specify) _____

**The fast track is for simple land use consents and is restricted to consents with a controlled activity status.*

3. Would you like to opt out of the fast track process?

☑ Yes ◯ No

4. Consultation

Have you consulted with Iwi/Hapū? ◯ Yes ☑ No

If yes, which groups have you consulted with?

Who else have you consulted with?

For any questions or information regarding iwi/hapū consultation, please contact Te Hono at Far North District Council, tehonosupport@fndc.govt.nz

5. Applicant details

Name/s: Kirsty Atkinson

Email:

Phone number:

Postal address:
(or alternative method of service under section 352 of the act)

Have you been the subject of abatement notices, enforcement orders, infringement notices and/or convictions under the Resource Management Act 1991? ◯ **Yes** ☑ **No**

If yes, please provide details.

6. Address for correspondence

Name and address for service and correspondence (if using an Agent write their details here)

Name/s: Lynley Newport

Email:

Phone number:

Postal address:
(or alternative method of service under section 352 of the act)

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

7. 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: as per item 5

Property address/
location:

Postcode

8. Application site details

Location and/or property street address of the proposed activity:

Name/s: Kirsty Atkinson

Site address/ location: 19 Martin Road
OMAPERE
Postcode

Legal description: Lot 3 DP 138969 **Val Number:**

Certificate of title: NA82B/436

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? ☑ **Yes** ○ **No**

Is there a dog on the property? ☑ **Yes** ○ **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.

Please contact Kirsty 6 prior to site visit to ensure access

9. Description of the proposal

Please enter a brief description of the proposal here. Please refer to Chapter 4 of the *District Plan, and Guidance Notes*, for further details of information requirements.

Subdivision of land in the Coastal Residential Zone, to create one additional lot.

If this is an application for a 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), with reasons for requesting them.

10. Would you like to request public notification?

○ **Yes** ☑ **No**

11. Other consent required/being applied for under different legislation

(more than one circle can be ticked):

○ **Building Consent** Enter BC ref # here (if known)

○ **Regional Council Consent (ref # if known)** Ref # here (if known)

○ **National Environmental Standard Consent** Consent here (if known)

○ **Other (please specify)** Specify 'other' here

12. 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:

Is the piece of land currently being used or has it historically ever been used for an activity or industry on the Hazardous Industries and Activities List (HAIL)? ◯ **Yes** ☑ **No** ◯ **Don't know**

Is the proposed activity an activity covered by the NES? Please tick if any of the following apply to your proposal, as the NESCS may apply as a result? ☑ **Yes** ◯ **No** ◯ **Don't know**

☑ **Subdividing land**

◯ **Changing the use of a piece of land**

◯ **Disturbing, removing or sampling soil**

◯ **Removing or replacing a fuel storage system**

13. 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.

Your AEE is attached to this application ☑ **Yes**

14. Draft conditions:

Do you wish to see the draft conditions prior to the release of the resource consent decision? ☑ **Yes** ◯ **No**

If yes, please be advised that the timeframe will be suspended for 5 working days as per s107G of the RMA to enable consideration for the draft conditions.

15. 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 in full) Kirsty Atkinson

Email:

Phone number:

Postal address:
(or alternative method of service under section 352 of the act)

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.

15. Billing details continued...

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.

Name: (please write in full) Kirsty Atkinson

Signature:
(signature of bill payer)

Date 23-Feb-2026

MANDATORY

16. 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.

17. Declaration

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

Name (please write in full) Kirsty Atkinson

Signature

Date 23-Feb-2026

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

See overleaf for a checklist of your information...

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)
- ◯ Details of your consultation with Iwi and hapū
- ◯ 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.

Kirsty Atkinson

PROPOSED SUBDIVISION

19 Martin Road, Omapere

PLANNER'S REPORT & ASSESSMENT OF ENVIRONMENTAL EFFECTS

Thomson Survey Ltd
Kerikeri

1.0 THE PROPOSAL

The applicant proposes a two lot subdivision of their land at 19 Martin Road, Omapere. The property is zoned Coastal Residential and located not far from the Opononi Area School. The proposal would see Lot 1 of 3778m^2 on the left side of the existing access, and containing existing built development, including dwelling; and Lot 2 of 6951m^2 on the right side of the access, with this lot also having road frontage to Waihuka Road, from which it is intended to gain access.

Civil and Geotechnical reporting supports the application, providing confirmation that Lot 1 can continue to accommodate its existing built development and that Lot 2 is capable of supporting future residential use. A future dwelling on new Lot 2 will be constructed on the northern portion of that new lot, limited to that area for geotechnical reasons.

The site is unsewered (by definition) and as such lots will be dependent on on-site wastewater treatment and disposal.

Access to Lot 1 will remain over the existing Martin Road access; access to Lot 2 will be via Waihuka Road frontage, and driveway along the leg-in, up slope to a building in the north.

Copies of proposed scheme plans are attached in Appendix 1. A Location Map is attached in Appendix 2.

Martin Road is a Council maintained metal surfaced road from where it intersects with Waihuka Road, right through the application site and adjacent site. It is not uniformly to the required Council standard for a public road and the consent includes a breach of rules in Chapter 15.1.6C.

1.2 Scope of this Report

This assessment and report accompanies the Resource Consent Application made by the applicant, and is provided in accordance with Section 88 and Schedule 4 of the Resource

Management Act 1991. The application seeks consent to subdivide land, as a discretionary activity overall. The information provided in this assessment and report is considered commensurate with the scale and intensity of the activity for which consent is being sought. Applicant details are contained within the Application Form 9.

2.0 PROPERTY DETAILS

Location:	19 Martin Road, Omapere
Legal description:	Lot 3 DP 138969
Record of Title:	NA82B/436, with an area of 1.0728ha. A copy of the title is attached in Appendix 3, along with relevant interests.

3.0 SITE DESCRIPTION

3.1 Physical & Mapped characteristics

The application site is located at Martin Road. The site supports an existing residential dwelling with on site wastewater treatment and disposal system. The site accommodates a portion of road maintained by the Council. On the other side of that access is proposed Lot 2, sloping north to south, where the north is the high point. The northern portion is in grass, with mixed species vegetation down slope on southern portion. There are no buildings within the Lot 2 area.

The site is located well inland and above the Opononi/Omapere foreshore.

The site is not serviced by FNDC 3-waters. There is wastewater and stormwater reticulation to the adjacent site downslope to the west, as well as at Waihuka Road, up to and beyond where it intersects Martin Road. However, the applicant prefers on-site servicing.

The site is not mapped as containing any archaeological sites or historic sites or cultural sites. The site is not mapped as containing any significant indigenous vegetation or outstanding landscape, or areas of high or outstanding natural character. The eastern third of the site is mapped as a kiwi present area. The site is not subject to any hazard.

The site is zoned Coastal Residential in the Operative District Plan (ODP) and General Residential in the Proposed District Plan (PDP), with a coastal environment overlay applying.

3.2 Legal Interests on Titles

The title is subject to a right of way in Easement Certificate C206294.3. This easement instrument is attached as part of Appendix 3.

3.3 Consent History

The property file shows a number of resource consents, some of which so not appear relevant to the application site. RC 75120-RCPSUB and 1970156-RMASUB appear the most relevant in that they created the application site, Lot 3 DP 138969 as well as the access.

Building consent history is recorded as follows:

BP104290, issued in 1991 to re-site a dwelling;
BP104239, also issued in 1991 for an implement shed.
BC-1994-19, issued in 1994 for a garage;
BC-2006-1720, issued in 2006 for a septic tank and effluent field; and
EBC-2021-720, issued in 2021 for the installation of a wastewater.

4.0 SCHEDULE 4 – INFORMATION REQUIRED IN AN APPLICATION

Clauses 2 & 3: Information required in all applications

(1) An application for a resource consent for an activity must include the following:	
(a) a description of the activity: .	Refer Sections 1 and 5 of this Planning Report.
(b) an assessment of the actual or potential effect on the environment of the activity:	Refer to Section 6 of this Planning Report.
(b) a description of the site at which the activity is to occur:	Refer to Section 3 of this Planning Report.
(c) the full name and address of each owner or occupier of the site:	This information is contained in the Form 9 attached to the application.
(d) a description of any other activities that are part of the proposal to which the application relates:	Refer to Sections 3 and 5 of this Planning Report for existing activities within the site. The application is for subdivision and access.
(e) a description of any other resource consents required for the proposal to which the application relates:	No other consents are required other than that being applied for pursuant to the Far North Operative District Plan.
(f) an assessment of the activity against the matters set out in Part 2:	Refer to Section 7 of this Planning Report.
(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): (*a) any relevant objectives, policies, or*	Refer to Sections 5 & 7 of this Planning Report.

rules in a document; and *(b) any relevant requirements, conditions, or permissions in any rules in a document; and* *(c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).*	
(3) An application must also include any of the following that apply:	
(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)):	Refer sections 3 and 5. The site supports an existing legally established dwelling.
(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)):	There is no existing resource consent. Not applicable.
(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)).	The site is not within an area subject to a customary marine title group. Not applicable.

Clause 4: Additional information required in application for subdivision consent

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

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.*	

Clause 5: Additional information required for application for reclamation – not applicable.

Clause 6: Information required in assessment of environmental effects

(1) An assessment of the activity's effects on the environment must include the following information:	
(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:	Refer to Section 6 of this planning report. The activity will not result in any significant adverse effect on the environment.
(b) an assessment of the actual or potential effect on the environment of the activity:	Refer to Section 6 of this planning report.
(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:	Not applicable as the application does not involve hazardous installations.
(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:*	The subdivision does not involve any discharge of contaminant.
(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:	Refer to Section 6 of this planning report.
(f) identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted:	Refer to Section 8 of this planning report. No affected persons are identified.
g) if the scale and significance of the activity's effects are such that monitoring is required, a description of	No monitoring is required as the scale and significance of effects does not warrant any.

how and by whom the effects will be monitored if the activity is approved:	
(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).	No protected customary right is affected.

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

(1) An assessment of the activity's effects on the environment must address the following matters:	
(a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects:	Refer to Sections 6 and 8 of this planning report and also to the assessment of objectives and policies in Section 7.
(b) any physical effect on the locality, including any landscape and visual effects:	Refer to Section 6. The proposed activity will have no adverse effects on the physical environment and landscape and visual amenity values.
(c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity:	Refer to Section 6. The proposal will not have any adverse effects in regard to habitat and ecosystems.
(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:	Refer to Section 6, and above comments
(e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants:	The subdivision will not result in the discharge of contaminants, nor any unreasonable emission of noise.
(f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.	The subdivision site is not subject to natural hazards and does not involve hazardous installations.

5.0 ACTIVITY STATUS – FAR NORTH DISTRICT PLAN

The site is zoned Coastal Residential, with no resource features.

Table 13.7.2.1: Minimum Lot Sizes

(x) COASTAL RESIDENTIAL ZONE

Controlled Activity Status (Refer also to 13.7.3)	**Restricted Discretionary Activity Status (Refer also to 13.8)**	**Discretionary Activity Status (Refer also to 13.9)**
The minimum lot sizes are 3,000m^2 (unsewered) and 800m^2 (sewered).		The minimum lot sizes are 2,000m^2 (unsewered) and 600m^2 (sewered).

The site is unsewered and both lots as shown on the scheme plan are in excess of 3,000m^2 in area. The subdivision is a controlled activity in terms of minimum lot sizes.

Zone Rules:

The site supports an existing dwelling, established in the northwest corner of the site and not neat any proposed new boundary. There is an estimated 985m^2 of impermeable surface coverage within the area of Lot 1, including the access. This comes to less than 50% coverage and less than 1,000m^2 (permitted). I have not identified any zone rule breaches.

District Wide Rules:

The site contains nothing to which Chapters 12.1 or 12.5 relate to and does not involve Hazardous Facilities or Storage.

Chapter 12.2 is not applicable as no clearance of indigenous vegetation will be required as part of the subdivision.

12.3.6.1.2 Excavation and/or Filling – It is expected that earthworks relating to the subdivision will be within the zone's permitted thresholds.

Chapter 12.4: The application site is not mapped in the ODP as being subject to Coastal Hazard and it is possible to achieve a 20m buffer setback between any future residential unit and the dripline of bush or scrubland on the site.

Chapter 12.7: the site is some distance from any river, lake, wetland and coastal marine area.

Chapter 14 and need for Esplanade Reserve or Strip: The application site does not have a water boundary.

Traffic, Parking and Access: A crossing into the new Lot 2 will be to the required standard. The crossing into the dwelling to be on Lot 1 is already formed to standard.

Rule 15.1.6C.1.8(b) requires the subdivider to upgrade any public road providing frontage to the subdivision where that public road is not to the required public road standard. Access to the site is off the end of Martin Road (public road) which is not uniformly to the required standard for public road, and Waihuka Road. It is not intended to upgrade Martin Road and consent is sought for a breach of Rule 151.6C.1.8(b), resulting in the application becoming a discretionary activity overall.

Refer to section 6 of this report for further discussion in regard to the access road that currently is owned by the application site, but which is maintained by the Council.

5.2 Proposed District Plan

The Proposed District Plan (PDP) was publicly notified on 27th July 2022. Regard must therefore be had to Objectives and Policies within the PDP relevant to the site. Legal effect must also be given to any rules that the Council has identified in the PDP as having immediate legal effect. Such rules may affect activity status of an application.

In this instance I have examined the PDP, where the application site is zoned General Residential with a Coastal Environment overlay. There are no zone or overlay rules that have immediate legal effect.

In regard to other 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 in the PDP that have legal effect. The requirements of those rules – related to observance of the ADP, and G05 Erosion and Sediment Control standards, can be achieved via conditions of consent.

The PDP's rules in regard to indigenous vegetation clearance are not applicable as no clearance of indigenous vegetation is required.

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.

6.0 ASSESSMENT OF ENVIRONMENTAL EFFECTS

6.1 Allotment Sizes and Dimensions

Proposed Lot 1 contains existing built environment. Proposed Lot 2 is large and easily able to accommodate a 14m x 14m building envelope complying with the zone's boundary setback requirement. The vacant lot is considered of a size and dimension suitable for residential use with access and on site services.

6.2 Natural and Other Hazards

The site is not subject to any flooding or erosion hazard. Nor is it subject to any fire hazard, or sea level rise risk. With no rivers on site, there is no risk of avulsion or accretion. Overland

flowpaths can be avoided. In summary, there is no reason pursuant to s106 of the RMA for the consent authority to decline consent.

Notwithstanding this, a Geotechnical Concept Stability Assessment Report has been commissioned and is attached in Appendix 5. This makes some conceptual recommendations, suggesting that these should be reviewed at time of building consent application. It puts forward a 'building restriction line' below which any development will require engineered stabilisation measures, including retaining structures. A 'developable area', suitable for residential dwellings, is identified above the building restriction line.

6.3 Water Supply

The site is not serviced by any FNDC reticulated water supply. Each lot will need to be self sufficient in terms of both potable and fire fighting water supply. Existing development utilises tank supply. The Council can impose its standard consent notice in regard to sufficient and accessible potable and fire fighting water supply.

6.4 Energy Supply & Telecommunications

Consultation has been carried out with Top Energy and Chorus, the results of which are contained in Appendix 4.

6.5 Stormwater Disposal

The application is supported by a Subdivision Site Suitability Engineering Report (SSSER), attached in Appendix 6. This addresses stormwater management in its section 3. Existing and future impermeable surface coverage meets permitted activity standards. The report outlines potential stormwater attenuation methodology.

6.6 Sanitary Sewage Disposal

The SSSER referred to above also addresses sewerage, in its section 2. It comments that the existing dwelling within Lot 1 is currently serviced by an on-site wastewater treatment system and disposal field to the south of the dwelling. The system appears in good working order and is contained within the proposed Lot 1 boundaries.

The report confirms that proposed Lot 2 can support on-site wastewater management.

6.7 Easements for any purpose

The title is subject to one existing easement, shown A on the scheme plan.

6.8 Property Access

Access to the site is off public road, with a right of way in favour of several properties beyond the application site passing through the application site (currently shown as A on the scheme plan and within Lot 1). The right of way is formed and metalled, and maintained by the Council. It is proposed that Lot 2 will utilise the property's alternate frontage – to Waihuka Road - meaning this proposal represents no change to the existing scenario for the right of way.

I understand the total number of properties served by the existing appurtenant easement will not exceed 8. However, consent has recently been issued to the adjacent Taiwhatiwhati 1E block, for three additional lots and should that consent be given effect to, there will be more than 8 properties utilising the right of way, albeit the Council already maintains the 'road' up to a point beyond the application site and beyond the adjacent site as well.

When looking at this subdivision in isolation, there is no trigger to upgrade, widen or vest the private right of way. However, in processing and consenting the adjacent property's subdivision, Council's roading division acknowledged that the Council already maintained the portion of Martin Road that is legally private right of way. A condition of the adjacent property's consent was that the appurtenant easement within their property (part of the same easement on the scheme plan in this application) should be vested as road, and Council continue to maintain it, and that the consent holder for that adjacent subdivision (creating 3 additional lots) be responsible for widening the easement (shown A on our scheme plan) to 5m metal carriageway width.

Given that this current subdivision does not increase usage, noting Lot 2's frontage to Waihuka Road, I do not believe imposing any requirement to physically upgrade the existing access within easement A is warranted. Any upgrading should be left to situations where there is intensified use proposed. However, in the interest of consistency, and again recognising Council's road maintenance regime, the Council may feel compelled to require easement A be shown as road to vest.

This would result in reducing Lot 1's overall area to just over 2,000m^2 in area, remaining within the existing overall activity category of 'discretionary'. Impermeable surface coverage remains compliant.

6.9 Effects of Earthworks

Very little earthworks will be required to give effect to the subdivision.

6.10 Building Locations

Refer to 6.2 above. A dwelling within Lot 2 can readily be established within the identified 'developable area' as well as outside that area, subject to stability engineering aspects. The overall residential intensity within the property remains well within permitted and anticipated density levels for a site in this zone and in this location.

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

The site is zoned Coastal Residential 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 is zoned for urban use and is adjacent to a low density built up area. No indigenous vegetation clearance will be required to develop the vacant lot.

Fauna

The site is not identified as a high density kiwi area on Far North maps. The eastern one third of the property is mapped as a kiwi present area. Given the semi urban nature of the surrounding area, I do not consider it necessary to place any restriction on the lots in regard to the keeping of dogs and cats other than potentially a requirement to keep them inside at night.

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 or NZAA database. There are no natural waterbodies within the proposed additional lot.

I do not believe the proposed subdivision, well within the permitted/allowable density provided for in the ODP, will have any adverse effects on heritage/cultural values.

6.12 Soil

The site is not suitable for any type of productive use reliant on soils. The area is now in residential and lifestyle use and the proposed subdivision does little to adversely impact on the life supporting capacity of soils.

6.13 Access to, and protection of, waterbodies

There is no qualifying waterbody with which any lot has a boundary. There is no requirement for the provision of access to the coastal marine area.

6.14 Land use compatibility (reverse sensitivity)

The area is zoned for low density residential use, transitioned into larger rural holdings. The proposal is consistent with this existing character. I do not believe the addition of one residential unit creates any risk of reverse sensitivity issues arising.

6.15 Natural Character of the Coastal Environment

The site is within the coastal environment, however, is zoned urban. The subdivision consolidates development within a low density built up area, located near existing residential uses and in proximity to a school. The proposal creates one additional lot that will support built development. The vacant lot is not easily seen from the state highway or harbour, being screened by intervening vegetation and topography. The proposal does little to adversely impact on natural character values.

6.16 Energy Efficiency and renewable Energy Development/Use

A future lot owner may take the opportunity to install energy efficiency devices when they build. This is not something considered in this proposal.

6.17 National Grid Corridor

The National Grid does not run through the application site.

6.18 Other Matters

Cumulative Effect:

I believe the site can absorb the effects of additional built development without adverse cumulative effects. The level of density being proposed meets permitted activity thresholds.

Precedent Effect:

Precedent effects are not amongst those effects to be considered when determining the level of effects on the wider environment for the purposes of assessing whether notification is required. They are instead a matter for consideration when a consent authority is considering whether or not to grant a consent. Consideration of precedent setting is most often reserved for non complying activities, rather than discretionary activities. The Council, in granting this consent, will not be creating any negative precedent that would threaten the integrity of the ODP.

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 10.8 (Coastal Residential Zone); and 13 (Subdivision), of the District Plan. Chapter 15.1 (as it relates to access) is also relevant.

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 Coastal Residential Zone applies to both unsewered and sewered urban areas, located on or adjacent to the coast. The proposed subdivision creates lots conforming with the controlled activity minimum lot sizes applying to the zone, and is consistent with purpose of the zone.

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.

Refer to the Assessment of Environmental Effects, and supporting reports. The proposed subdivision is considered appropriate for the site and actual or potential adverse effects can be avoided, remedied or mitigated.

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. Only the latter is relevant. Whilst in the coastal environment, the land is zoned urban and on the periphery of low density urban development. As such there is an expectation of built development as opposed to open space.

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.

The proposal includes provision for on site water storage and 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. Additional lots can accommodate onsite wastewater treatment and disposal system in compliance with Regional Plan requirements and with no off site adverse effects. Stormwater management can also be provided for. 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.

Top Energy has confirmed that electricity can be provided.

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 utilises existing access off legal road via existing appurtenant right of way, or directly. The site is not far from State Highway 12.

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. I believe regard has been had to items (a) through (g) in the design of the subdivision.

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 existing, off legal road. The site is reasonably close to State Highway network via an established council maintained intersection.

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

The property is not subject to any hazard.

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.

I believe there are no above ground utility services.

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. The site is zoned Coastal Residential, and natural character values associated with the coast line are already compromised by the presence of built development.

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. The vacant lot can provide for on-site water storage.

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 will provide for one additional dwelling within an area with an existing low density residential character, in a manner that has little or no impact on natural character, indigenous vegetation, landforms, rivers, streams or wetlands.
(b) The site is in the coastal environment, but zoned for urban development;
(c) The site does not adjoin any qualifying water body and therefore public access is not required;
(d) The proposal is not believed to negatively impact on the relationship of Maori with their culture;
(e) There are no mapped or identified existing significant habitat or areas of significant indigenous vegetation;
(f) There are no identified heritage values;
(g) An acceptable stormwater management system can be designed such that there will be no adverse off site effects;
(h) The site is not subject to hazard.

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.

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 additional lot can readily provide for house sites 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.

Coastal Residential Zone Objectives and Policies

Objectives:

10.8.3.1 To enable the development of residential activity in and around existing coastal settlements.

10.8.3.2 To protect the coastline from inappropriate subdivision, use and development.

10.8.3.3 To enable the development of coastal settlements where urban amenity and coastal environmental values are compatible.

I believe the proposed subdivision will create lots that will be able to accommodate the type of development envisaged by the above objectives, and is appropriate for the site.

And policies

10.8.4.1 That standards in the zone enable a range of housing types and forms of accommodation to be provided, recognising the diverse needs of the community and the coastal location of the zone.

10.8.4.2 Non-residential activities within the Coastal Residential Zone shall be designed, built, and located so that any effects that are more than minor on the existing character of the residential environment or the scale and intensity of residential activities, are avoided, remedied or mitigated.

10.8.4.3 That residential activities have sufficient land associated with each household unit to provide for outdoor space and sewage disposal.

10.8.4.4 That the portion of a site covered in buildings and other impermeable surfaces be limited to enable open space and landscaping around buildings and avoid or mitigate the effects of stormwater runoff on receiving environments

10.8.4.5 That provision be made for ensuring sites have adequate access to sunlight and daylight.

10.8.4.6 That activities with net effects greater than a single residential unit could be expected to have, be required to minimise adverse effects on the amenity values and general peaceful enjoyment of any adjacent residential activities.

10.8.4.7 That provision be made to ensure a reasonable level of privacy and amenity for inhabitants of buildings.

Policies 10.8.4.1 and 10.8.4.2 relate specifically to housing types and non-residential activities and are not relevant. The sites are large enough to enable residential activities to be maintained or to establish with sufficient outdoor space and onsite sewage disposal (10.8.4.3). The lots can accommodate development complying with the zone's permitted impermeable coverage rules, and building coverage rules (10.8.4.4). Sites enable good access to sunlight and daylight (10.8.4.5). The lots are large enough to enable a reasonable level of privacy and amenity for future inhabitants (10.8.4.7).

In summary, I believe the proposal to be consistent with the Coastal Residential Zone objectives and policies.

Relevant traffic (access) objectives include:

15.1.3.1 which seeks to minimise the adverse effects of traffic on the natural and physical environment; and 15.1.3.5 which seeks to promote safe and efficient movement and circulation of vehicular, cycle and pedestrian traffic, including those with disabilities.

Although Martin Road is not uniformly to standard, it is adequate and where it does not meet minimum width, visibility is good in both directions. The proposal provides for an additional lot that has alternative road frontage to Waihuka Road.

Relevant policies include:

15.1.4.1 That the traffic effects of activities be evaluated in making decisions on resource consent applications.

15.1.4.6 That the number, size, gradient and placement of vehicle access points be regulated to assist traffic safety and control, taking into consideration the requirements of both the New Zealand Transport Agency and the Far North District Council.

A vehicle access point into the new lot can be constructed to the appropriate standard.

7.2 Proposed District Plan Objectives and Policies

The following is an assessment of the proposal against relevant objectives and policies in the 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 mitigates 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 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 give n 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 waterbodies

The subdivision results in the efficient use of land. It contributes to the local character and sense of place and reverse sensitivity issues are not unduly increased. It also avoids land use patterns which would prevent land from achieving the objectives and policies of the zone. The subdivision does not increase the risk from natural hazards, and manages adverse effects (SUB-O1). The site is not 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) other than being within the Coastal Environment. However, as stated earlier, the site is in an existing urban area so natural character values are already compromised.

The site is not connected to Council services, but has a zone suggesting it one day will be able to. The site has power (SUB-O3). Supporting technical reports conclude the site can support on-site wastewater and stormwater, and can also provide for water supply. The site is located close to public open spaces and to Council roading network. State Highway 12 is not that far away. The site does not adjoin the coastal marine are or any other 'qualifying' water bodies (SUB-O4).

SUB-P1 *Enable boundary adjustments that: …*

N/A.

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.

I believe the proposed allotments will be consistent with the purpose, characteristics and qualities of the zone (General Residential). The PDP, yet to have legal effect, proposes minimum lot sizes one would expect for 'serviced' / 'sewered' sites. This infers an intention to service the site with 3 waters at some point in the future, otherwise the site would have been zoned Settlement, with a proposed 3,000m^2 minimum lot size. The vacant lot being proposed is in excess of 3000m^2 and will readily accommodate a building with legal and physical access.

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 has existing access, 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.

The site is to be zoned General Residential. The existing vehicle crossing into Lot 1 is to be retained with Lot 2's entrance to be off Waihuka Road. The proposed internal access is private access and there is no opportunity for any future public access connectivity. I believe the development can occur, subject to conditions, without adversely affecting 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 vacant lot will be self sufficient in terms of 3 waters, although it is noted that the PDP zones the site General Residential, indicating future intent to extend 3 water services to the site.

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 qualifying waterbody.

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

Site is not zoned Rural Production.

SUB-P9
Avoid subdivision [sic] rural lifestyle subdivision in the Rural Production zone and Rural residential subdivision inthe Rural Lifestyle zone unless the development achieves the environmental outcomes required in the management plan subdivision rule.

The site 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 principalresidential units where resultant allotments do not comply with minimum allotment size and resi dential density.

Not applicable. There are 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.

The proposal does not require resource consent under the PDP. I believe the proposal has adequately taken into account all of the matters listed above.

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 General Residential in the PDP. The overview describes the zone as one that represents those areas where "*there is an expectation of higher density residential development, compared to the rural environments, and that generally provides adequacy and capacity of available or programmed development infrastructure.*"

This indicates Council's intent to service the site with 3 waters at some point in the future.

General Residential Zone Objectives:

GRZ-O1
The General Residential zone provides a variety of densities, housing types and lot sizes that respond to:
a. housing needs and demand;
b. the adequacy and capacity of available or programmed development infrastructure;
c. the amenity and character of the receiving residential environment; and
d. historic heritage.

GRZ-O2
The General Residential zone consolidates urban residential development around available or programmed development infrastructure to improve the function and resilience of the receiving residential environment while reducing urban sprawl.

GRZ-O3
Non-residential activities contribute to the wellbeing of the community while complementing the scale, character and amenity of the General Residential zone.

GRZ-O4
Land use and subdivision in the General Residential zone is supported where there is adequacy and capacity of available or programmed development infrastructure.

GRZ-O5
Land use and subdivision in the General Residential zone provides communities with functional and high amenity living environments.

GRZ-O6
Residential communities are resilient to changes in climate and are responsive to changes in sustainable development techniques.

The proposal will create lots that can accommodate activity consistent with all of the above objectives.

General Residential Policies:

GRZ-P1
Enable land use and subdivision in the General Residential zone where:
a. there is adequacy and capacity of available or programmed development infrastructure to support it; and
b. it is consistent with the scale, character and amenity anticipated in the residential environment.

Whilst the site is not currently serviced by 3 waters, there is a clear indication that it will be, given its zoning. The proposal is consistent with the scale, character and amenity anticipated in the residential environment.

GRZ-P2
Require all subdivision in the General Residential zone to provide the following reticulated services to the boundary of each lot:
a. telecommunications:
i. fibre where it is available; or
ii. copper where fibre is not available;
b. local electricity distribution network; and
c. wastewater, potable water and stormwater where they are available.

Consultation has been carried out with service providers.

GRZ-P3
Enable multi-unit developments within the General Residential zone, including terraced housing and apartments, where there is adequacy and capacity of available or programmed development infrastructure.

N/A

GRZ-P4
Enable non-residential activities that:….

N/A

GRZ-P5
Provide for retirement villages where they:

N/A

GRZ-P6
Encourage and support the use of on-
site water storage to enable sustainable and efficient use of water resources.

The new lots will be reliant on their own onsite water storage.

GRZ-P7
Encourage energy efficient design and the use of small-scale renewable electricity generation in the construction of residential development.

Not a consideration under this subdivision.

GRZ-P8
Manage land use and subdivision to address the effects of the activity requiring resource consent,

N/A – no consent required under the PDP.

Coastal Environment objectives and policies are also relevant.

CE-O1 *The natural character of the coastal environment is identified and managed to ensure its long-term preservation and protection for current and future generations.*

CE-O2 *Land use and subdivision in the coastal environment:*

a. *preserves the characteristics and qualities of the natural character of the coastal environment;*
b. *is consistent with the surrounding land use;*
c. *does not result in urban sprawl occurring outside of urban zones;*
d. *promotes restoration and enhancement of the natural character of the coastal environment; and*
e. *recognises tangata whenua needs for ancestral use of whenua Māori.*

CE-P2 *Avoid adverse effects of land use and subdivision on the characteristics and qualities of the coastal environment identified as:*
a. *outstanding natural character;*
b. *ONL;*
c. *ONF.*

CE-P3 *Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of land use and subdivision on the characteristics and qualities of the coastal environment not identified as:*
a. *outstanding natural character;*
b. *ONL;*
c. *ONF.*

CE-P4 *Preserve the visual qualities, character and integrity of the coastal environment by:*
a. *consolidating land use and subdivision around existing urban centres and rural settlements; and*
b. *avoiding sprawl or sporadic patterns of development.*

CE-P8 *Encourage the restoration and enhancement of the natural character of the coastal environment.*

CE-P10 *Manage land use and subdivision to preserve and protect the natural character of the coastal environment, and 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 presence or absence of buildings, structures or infrastructure;*
b. *the temporary or permanent nature of any adverse effects;*
c. *the location, scale and design of any proposed development;*
d. *any means of integrating the building, structure or activity;*
e. *the ability of the environment to absorb change;*

f. the need for and location of earthworks or vegetation clearance;
g. the operational or functional need of any regionally significant infrastructure to be sited in the particular location;
h. any viable alternative locations for the activity or development;
i. any historical, spiritual or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6;
j. the likelihood of the activity exacerbating natural hazards;
k. the opportunity to enhance public access and recreation;
l. the ability to improve the overall quality of coastal waters; and
m. any positive contribution the development has on the characteristics and qualities.

The site is within the coastal environment but is zoned General Residential, intended for urban settlement and serviced sites. The site and its environs have a character of built environment at the edge of more open rural farmland. Natural character has been, and will continue to be, somewhat compromised in terms of the amount of built development. The proposal does not create urban sprawl, noting the site's zoning, and is consistent with the area's character. The site is not known to contain any sites of significance to Maori and has no areas of outstanding natural character, outstanding natural landscape or natural feature.

I believe the proposal is consistent with the objectives and policies of the coastal environment.

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:
(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. There is no significant risk from natural hazard.

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, along with waste water and stormwater management proposals, 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 NZ Coastal Policy Statement

The NZ Coastal Policy Statement (NZCPS) has relevance to this proposal due to the property being within the coastal environment. The following objectives and policies are considered relevant to the proposal.

Objective 2: *To preserve the natural character of the coastal environment and protect natural features*

Objective 6: *To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:*

- *the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;*

Policy 6: *Activities in the coastal environment*
(1) In relation to the coastal environment:
……(h) consider how adverse visual impacts of development can be avoided in areas sensitive to such effects, such as headlands and prominent ridgelines, and as far as practicable and reasonable apply controls or conditions to avoid those effects; …..
(i) set back development from the coastal marine area and other water bodies, where practicable and reasonable, to protect the natural character, open space, public access and amenity values of the coastal environment; and……

Policy 13*: Preservation of natural character*
(1) To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:
(a) avoid adverse effects of activities on natural character in areas of the coastal environment with outstanding natural character; and
(b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment;

Policy 14 *Restoration of natural character*
Promote restoration or rehabilitation of the natural character of the coastal environment, including by :
….
And

Policy 15 *Natural features and natural landscapes*
To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use, and development:
(a) avoid adverse effects of activities on outstanding natural features and outstanding natural landscapes in the coastal environment; and
(b) avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activities on other natural features and natural landscapes in the coastal environment;

The site does not display any outstanding or high natural character values, nor any high or outstanding landscape values. The site has limited visibility to and from the coastal marine area. The site already supports an existing dwelling and adjacent sites between it and the coast, are already developed. Natural character aspects are already somewhat compromised. The proposed new lots are set well back from the shore line, and are not

subject to any coastal hazard. The proposal does not adversely affect indigenous biodiversity or natural character values.

I believe the proposal gives effect to the relevant objectives and policies in the NZ Coastal Policy Statement.

7.5 National and Regional Policy Statements

I have not identified any other national policy statements relevant to this proposal.

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.

The RPS also has policies relating to subdivision, use and development of land in the coastal environment, with emphasis on avoiding adverse effects where land in that environment is also outstanding landscape and/or natural character – which the application site is not. In the absence of those values, the RPS instead emphasises the need to avoid, remedy or mitigate significant adverse effects of development in the coastal environment, which I believe this proposal does.

The RPS also has policies ensuring that productive land is not subject to fragmentation and/or sterilisation to the point where productive capacity is materially reduced, and that reverse sensitivity effects be avoided, remedied or mitigated. The application site is not productive land and is not used as such. The proposal does not generate any additional reverse sensitivity effects.

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 neither of which exists. 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.

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. The s95E assessment below concludes that there are no affected persons to be notified.

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 on the wider environment. 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. No Written Approvals have been obtained.

The activity is a discretionary activity because of shortfalls in the standard of the existing access standard. The subdivision, once given effect to, will result in only a minor increase in traffic movements.

In terms of density level, the proposal is well within the permitted and controlled residential intensity and subdivision thresholds in the ODP. No affected persons have been identified.

The site does not contain any heritage or cultural sites or values. The proposed additional lot is not adjacent to any water body, and minimal, if any, earthworks are being proposed. The vacant site does not contain any areas of significant indigenous vegetation or habitat. The site is not accessed off state highway. No pre lodgement consultation has been considered necessary with tangata whenua, Heritage NZ, Department of Conservation or Waka Kotahi.

9.0 CONCLUSION

The site is considered suitable for the proposal. Effects on the wider environment are, I believe, 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 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. No affected persons have been identified.

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

Signed Dated 24th February 2026
Lynley Newport,
Senior Planner
Thomson Survey Ltd

10.0 LIST OF APPENDICES

Appendix 1 Scheme Plan(s)

Appendix 2 Location Plan

Appendix 3 Record of Title & Relevant Interests

Appendix 4 Consultation with Top Energy & Chorus

Appendix 5 Geotechnical Assessment

Appendix 6 Subdivision Site Suitability Engineering Report

Appendix 1

Scheme Plan(s)

EXISTING EASEMENTS

PURPOSE	SHOWN	SERVIENT TENEMENT	CREATING DOCUMENT
RIGHT OF WAY	Ⓐ	LOT 1 HEREON	C206294.3

AREAS AND MEASUREMENTS ARE SUBJECT TO FINAL SURVEY

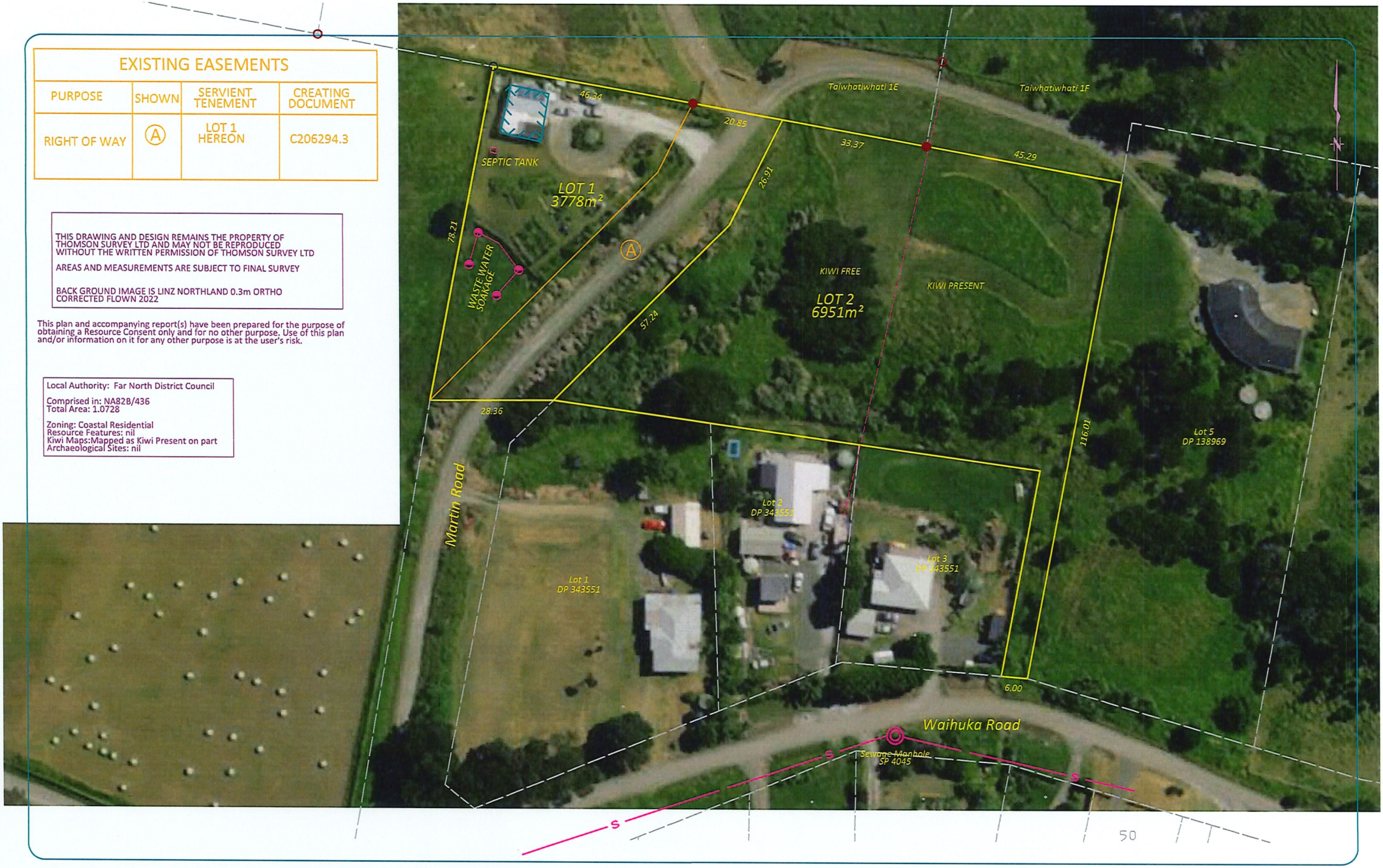
BACK GROUND IMAGE IS LINZ NORTHLAND 0.3m ORTHO CORRECTED FLOWN 2022

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

Local Authority: Far North District Council

Comprised in: NA82B/436
Total Area: 1.0728

Zoning: Coastal Residential
Resource Features: nil
Kiwi Maps:Mapped as Kiwi Present on part
Archaeological Sites: nil



THOMSON SURVEY LIMITED
315 Kerikeri Rd
P.O. Box 372 Kerikeri
Email: kerikeri@tsurvey.co.nz
Ph: (09) 4077360 Fax (09) 4077322
Registered Land Surveyors, Planners & Land Development Consultants

PROPOSED SUBDIVISION OF LOT 3 DP 138969

MARTIN ROAD & WAIHUKA ROAD, OMAPERE

PREPARED FOR: ATKINSON

	Name	Date
Survey		
Design		
Drawn	SL	1.12.25
Approved		
Rev		

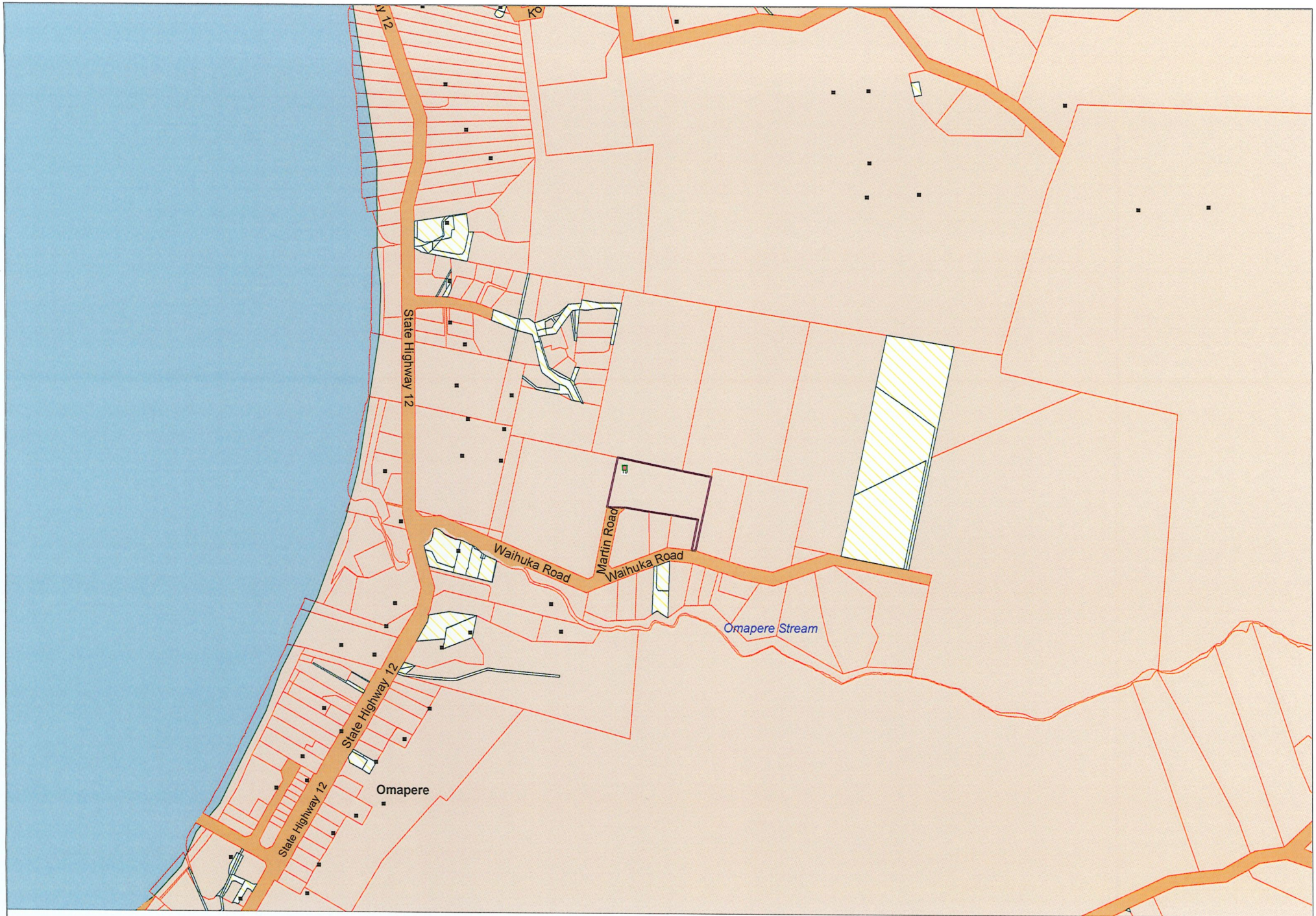
10863 Scheme.LCD

ORIGINAL
SCALE 1:750
SHEET SIZE A3

Surveyors Ref. No: 10863

Appendix 2

Location Plan



QuickMap
Custom Software Ltd

0 100 200 300 400 500 600 700 800 900m

Any person wishing to rely on the information shown on this map must independently verify the information

Scale 1:7500 Topographical and Cadastral map derived from LINZ data. Printed: 08-Dec-2025 10:55.

Appendix 3

Record of Title & Relevant Interests

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**NA82B/436**
Land Registration District	**North Auckland**
Date Issued	29 October 1990

Prior References
NA51C/1037

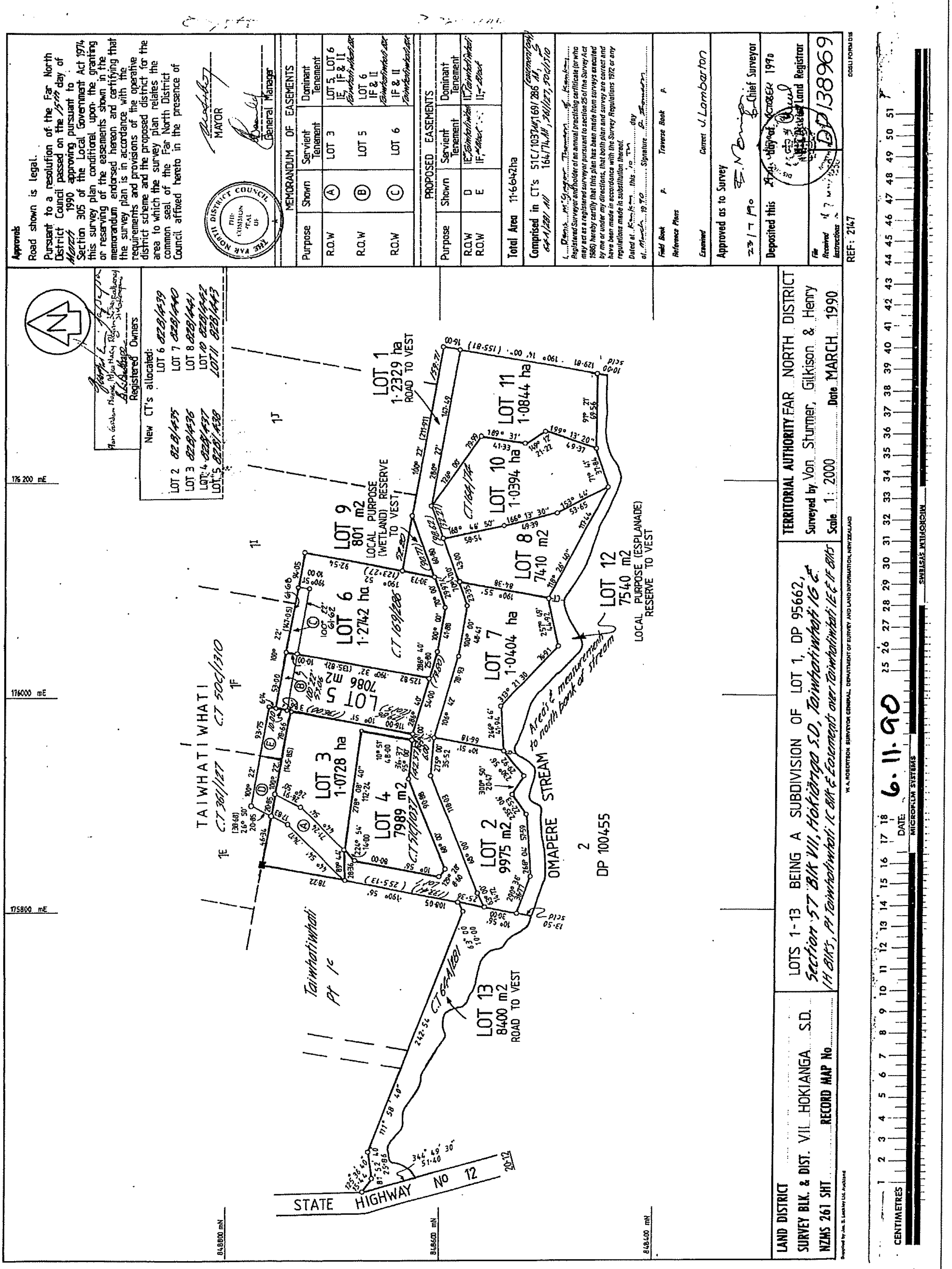
Estate	Fee Simple
Area	1.0728 hectares more or less
Legal Description	Lot 3 Deposited Plan 138969
Registered Owners	

Shaun Kieran Smith and Kirsty Joan Atkinson

Interests

Subject to a right of way over part marked A on DP 138969 specified in Easement Certificate C206294.3 - 29.10.1990 at 2.13 pm

The easements specified in Easement Certificate C206294.3 are subject to Section 309 (1) (a) Local Government Act 1974


LAND DISTRICT
SURVEY BLK. & DIST. VII HOKIANGA S.D.
NZMS 261 SHT RECORD MAP No.
LOTS 1-13 BEING A SUBDIVISION OF LOT 1, DP 95662,
TERRITORIAL AUTHORITY FAR NORTH DISTRICT
Surveyed by Von Sturmer, Gilkison & Henry
Scale 1: 2000 Date MARCH 1990
STATE HIGHWAY No 12
OMAPERE STREAM
DP 100455
TAIWHATIWHATI
LOT 1 1·2329 ha ROAD TO VEST
LOT 2 9975 m2
LOT 3 1·0728 ha
LOT 4 7989 m2
LOT 5 7086 m2
LOT 6 1·2742 ha
LOT 7 1·0404 ha
LOT 8 7410 m2
LOT 9 801 m2 LOCAL PURPOSE (WETLAND) RESERVE TO VEST
LOT 10 1·0394 ha
LOT 11 1·0844 ha
LOT 12 7540 m2 LOCAL PURPOSE (ESPLANADE) RESERVE TO VEST
LOT 13 8400 m2 ROAD TO VEST
MEMORANDUM OF EASEMENTS
PROPOSED EASEMENTS
Total Area 11·6642ha
Approved as to Survey
Deposited this
DP 138969
6.11.90
REF: 2147
CENTIMETRES

Approved by the Registrar-General of Land, Wellington, No. 367635.80
Approved by the District Land Registrar, North Auckland, No. 4363/80

C 206294.4

Under the Land Transfer Act 1952

TE

Memorandum of Transfer

~~being registered as proprietor~~

~~subject however to such encumbrances, liens and interests as are notified by memoranda underwritten or endorsed hereon in piece of land situated in the Land District of containing~~

~~more or less being~~

WHEREAS

(a) BRENDA RUTH BABBAGE of Auckland, Businesswoman (hereinafter called "the first transferor") as registered as proprietor of the land firstly, secondly and thirdly described in the schedule hereto.

426/584, 826/439, 826/438

(b) ALAN GORDON NUNNS of Auckland, Geophysicist and ALICE MARY ROGAN of Auckland, Married Woman (hereinafter together called "the second transferor") are registered proprietors of the land fourthly described in the schedule hereto.

SOC/1310

(c) GEORGE PAPACONSTANTINOU of Auckland, Company Director and JOCELYN ANN PAPACONSTANTINOU his wife (hereinafter called "the third transferor") are registered proprietors of the land fifthly described in the schedule hereto.

301/127.

(d) The parties hereto have agreed to execute these presence in order to provide the rights-of-way shown on Deposited Plan 138969 as set out herein.

NOW THEREFORE IN CONSIDERATION of the sum of ONE DOLLAR ($1.00) (receipt of which is hereby acknowledged) paid by the first transferor to the second transferor the said second transferor does hereby TRANSFER AND GRANT to the first transferor an easement of vehicular right-of-way in accordance with the rights implied by the ninth schedule to the Property Law Act 1952 for all purposes whatsoever connected with the use and enjoyment of the land described firstly, secondly and thirdly in the schedule hereto over and along that portion of the land fourthly described in the schedule hereto and marked with the letter "E" on Deposited Plan 138969 provided however that the costs of upkeep and maintenance of part of the said right-of-way marked "E" shall be shared equally by the registered proprietors for the time being of the land described firstly, secondly and thirdly and fourthly in the schedule hereto TO THE INTENT that such easements hereby created shall be forever appurtenant to the land firstly, secondly and thirdly described in the schedule hereto.

AND FURTHER IN CONSIDERATION the sum of ONE DOLLAR ($1.00) (receipt of which is hereby acknowledged) paid by the first transferor and the second transferor to the third transferor the said third transferor does hereby TRANSFER AND GRANT to the first transferor and the second transferor an easement of vehicular right-of-way in accordance with rights implied by the ninth schedule to the Property Law Act 1952 for all purposes whatsoever connected with the use and enjoyment of the land firstly, secondly, thirdly and fourthly described in the schedule hereto and marked with the letter "D" on Deposited Plan 138969 provided however the costs of upkeep and maintenance of part of the said right-of-way marked "D" shall be shared equally by the registered proprietors for the time being of the land firstly, secondly, thirdly, fourthly and fifthly described in the schedule hereto TO THE INTENT that such easements hereby

created shall be forever appurtenant to the land firstly, secondly thirdly and fourthly described in the schedule hereto.

SCHEDULE

FIRSTLY An estate in fee simple in all that parcel of land containing 3.6270 hectares more or less being situated in Block VII Hokianga Survey District being on Block called Taiwhatiwhati 1I described in Certificate of Title Volume 42B Folio 584 (North Auckland Registry)

SUBJECT TO: Fencing Covenant in Transfer B.174144.2.

SECONDLY: An estate in fee simple in all that parcel of land containing 1.2742 hectares more or less being Lot 6 Deposited Plan 138969 and being all the land comprised and described in Certificate of Title Volume 82BFolio 439 (North Auckland Registry).

SUBJECT TO: Fencing Covenant in Transfer B.174144.2.
Mortgage to Duthie Whyte Nominees Limited

THIRDLY: An estate in fee simple in all that parcel of land containing 7086 square metres more or less being Lot 5 Deposited Plan 138969 and being all the land comprised and described in Certificate of Title Volume 82B Folio 438 (North Auckland Registry)

SUBJECT TO: Fencing Covenant in Transfer B.174144.2.
Mortgage to Duthie Whyte Nominees Limited

FOURTHLY: An estate in fee simple in all that parcel of land containing 3.6270 hectares more or less being situated in Block VII Hokianga Survey District being a Block called Taiwhatiwhati 1F and being all the land comprised and described in Certificate of Title Volume 50C Folio 1310 (North Auckland Registry).

FIFTHLY: An estate in fee simple in all that parcel of land containing 3.6270 hectares more or less being the Block situated in the Hokianga Survey District called Taiwhatiwhati 1E and being all the land comprised and described in Certificate of Title Volume 361 Folio 127 (North Auckland Registry).

SUBJECT TO: Fencing Covenants in Transfer B.174144.2.

In witness whereof these presents have been executed this 6th day

of July 1990

Signed by the above named
BRENDA RUTH BABBAGE
in the presence of:-

B.R. Babbage

Signed by the above named
ALAN GORDON NUNNS
in the presence of:-

Alan Gordon Nunns by his Attorney Herb. Rogan

C006756.1
21.6.1989

Signed by the above named
ALICE MARY ROGAN
in the presence of:-

Alice Mary Rogan by her Attorney Herb Rogan

C006756.2.

Signed by the above named
GEORGE PAPACONSTANTINO &
JOCELYN ANN PAPACONSTANTINO
in the presence of:-

P0051

DS

DECLARATION OF NON REVOCATION OF POWER OF ATTORNEY

I, HELEN MARY ROGAN do solemnly and sincerely declare as follows:

1. That by deed dated the 29th day of March 1989 ALAN GEORGE NUNNS appointed me his attorney on the terms and subject to the conditions set out in the said deed, a copy of which deed is deposited in the Land Transfer Office at Auckland under no. C 006756.1

2. That at the date hereof I have not received any notice or information of the revocation of that appointed by the death of the said ALAN GEORGE NUNNS or other wise.

AND I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths and Declarations Act 1952.

DECLARED at Auckland by the abovenamed this 6th day of ~~March~~ July 1990 before me: H.M. Rogan

A Solicitor of the High Court of New Zealand

I, HELEN MARY ROGAN of Auckland, Married Woman, do solemnly and sincerely declare as follows:

1. THAT by enduring Power of Attorney dated the 16th day of August, 1988, ALICE MARY ROGAN of California, USA, Married Woman, appointed me this declarant Attorney on the terms and subject to the conditions set out in the said Power of Attorney.

C006756.2

2. THAT at the date hereof I this declarant have not received any notice or information of the revocation of that appointment by the death of the said ALICE MARY ROGAN or otherwise.

3. THAT the said Power of Attorney is in all respects in force at the date hereof by virtue of its terms and the provisions of Part IX of the Protection of Personal and Property Rights Act 1988.

4. THAT I this declarant am authorised by the enduring Power of Attorney to execute the annexed instrument.

5. THAT the annexed instrument complies with all conditions and restrictions set out in the said Power of Attorney.

AND I MAKE this solemn declaration conscientiously believing it to be true and by virtue of the Oaths and Declarations Act 1957.

DECLARED at Auckland)
this 6th day of)
July 1990)
before me:)

H M Rogan

A Solicitor of the High Court of New Zealand

0013P

Consideration of

(receipt of which sum is hereby acknowledged)

hereby Transfer to the said

all estate and interest in the

said land above described

In witness whereof these presents have been executed this day

of 19

Signed by the above named

in the presence of:

No.

TRANSFER OF

Correct for the purposes of the Land Transfer

Solicitor for the Transf

I HEREBY CERTIFY THAT THIS TRANSACTION DOES NOT CONTRA THE PROVISIONS OF PART IIA OF THE LAND SETTLEMENT PROMC AND LAND ACQUISITION ACT 1952

SOLICITOR FOR THE TRANSF

.....Transferor

.....Transferee

Particulars entered in the Register as shown herein on the date and at the time endorsed below.

.....

Assistant / District Land Registrar

of the District of .....

"I hereby certify, for the purposes of the Stamp and Cheque Duties Act 1971, that no conveyance duty is payable on this instrument by reason of the application of section 24(1) of the Act, and that the provisions of subsection (2) of the section do not apply.

.....

Solicitor for the Transferee

PARTICULARS ENTERED IN REGISTER
LAND REGISTRY AUCKLAND
ASST. LAND REGISTRAR
DISTRICT
12.13 29.OCT.90 C 206294.4

Solicitors for the Transferee

Appendix 4

Consultation with Top Energy & Chorus

TOP ENERGY
Te Puna Hihiko
www.topenergy.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

10 February 2026

Lynley Newport
Thomson Survey
PO Box 372
KERIKERI 0245

Email: lynley@tsurvey.co.nz

To Whom It May Concern:

RE: PROPOSED SUBDIVISION
Kirsty Atkinson – 19 Martin Road, Omapere. Lot 3 DP 138969.

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

Top Energy's requirement for this subdivision is nil.
Design and costs to provide a power supply could be provided after application and an on-site survey has 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
E: aaron.birt@topenergy.co.nz

Chorus New Zealand Limited

03 February 2026

Chorus reference: 11498889

Attention: Lynley Newport

Quote: New Property Development

1 connections at 19 Martin Road , Omapere, Far North District, 0473

Your project reference: N/A

Thank you for your enquiry about having Chorus network provided for the above development.

Chorus is pleased to advise that, as at the date of this letter, we are able to provide reticulation for this property development based upon the information that has been provided:

Fibre network	$1,400.00
Pre-built fibre	$0.00

The total contribution we would require from you is **$1,610.00 (including GST)**. This fee is a contribution towards the overall cost that Chorus incurs to link your development to our network. This quote is valid for 90 days from 03 February 2026. This quote is conditional on you accepting a New Property Development Contract with us for the above development.

If you choose to have Chorus provide reticulation for your property development, please log back into your account and finalise your details. If there are any changes to the information you have supplied, please amend them online and a new quote will be generated. This quote is based on information given by you and any errors or omissions are your responsibility. We reserve the right to withdraw this quote and requote should we become aware of additional information that would impact the scope of this letter.

Once you would like to proceed with this quote and have confirmed all your details, we will provide you with the full New Property Development Contract, and upon confirmation you have accepted the terms and paid the required contribution, we will start on the design and then build.

For more information on what's involved in getting your development connected, visit our website www.chorus.co.nz/develop-with-chorus

Kind Regards

Chorus New Property Development Team

Appendix 5

Geotechnical Assessment

geologix
consulting engineers

13/2181 East Coast Road, Silverdale

09 392 0007
www.geologix.co.nz

TECHNICAL MEMORANDUM

23 January 2026

GEOTECHNICAL CONCEPT STABILITY ASSESSMENT REPORT- 19 MARTIN ROAD, OMAPERE

Kirsty Atkinson

Geologix Ref. C0735N-TM01

By email: kjatk88@gmail.com

Introduction

This geotechnical concept stability assessment report has been prepared by Geologix Consulting Engineers Ltd (Geologix) for Kirsty Atkinson as our Client in accordance with our standard short form agreement and general terms and conditions of engagement.

The purpose of this technical memorandum is to provide a concept geotechnical recommendations and advice for instability potential and if required, concept remedial solutions at 19 Martin Road, Omapere, the 'site'. Specifically, this report provides the interpretation of a site-specific ground investigation to develop concept geotechnical recommendations and geotechnical parameters for future design under a separate scope.

This report has been prepared from review of available information such as Council GIS systems and relevant guideline documents. It has been supplemented by a site walkover survey and hand tool intrusive ground investigation by Geologix.

No plans for the development were provided at the time of writing. Any variations/ additions to the assumptions made in this report will require a review and possible amendment to the recommendations provided in this report.

Site Description

The subject property is located at 19 Martin Road, Omapere, and is legally described as Lot 3 DP 138969, with access via Waihuka Road. The site is irregular in shape, encompassing a gross area of approximately 1.0728 hectares. A proposed subdivision will divide the property into two lots, Lot 1 and Lot 2, with areas of 3,778 m² and 6,951 m², respectively, with Martin Road running between the two lots. An existing dwelling is situated at the northwest corner of Lot 1. The site setting is presented schematically in Figure 1 below.

Topographically, the property and surrounding land comprise generally gentle to steeply sloping terrain, descending from north to south at angles of approximately 6° to 24°. However, within the proposed building platform areas, slope angles are ranging from approximately 3° to 13°.

Figure 1: Site Setting[1]

Infrastructure Review

Available infrastructure information is provided by Far North District Council GIS system[2]. According to the available data, no existing Council infrastructure is present within the site boundaries and the proposed building foundations will not be influenced by existing pipelines according to available data.

Overland Flow Path and Flood Plains

In general, it is expected that surface water will move as sheet flow following the natural topography and flow towards the southern boundary of the site. The risk of encountering weak alluvial deposit is considered moderate to high at this site.

Natural Hazards Information

According to the Far North District Council Section 32 Report, Natural Hazards (May 2022); land which is underlain by 'Medium Hazard' geological units such as Otaua Group and is sloping steeper than 1V:5H (11°) is considered "Land susceptible to instability". As such specific geotechnical stability analysis will be required at the time of Consent.

Geological Setting

Available geological mapping[3] indicates the site to be underlain by Waitiiti Formation (Otaua Group) parent rock described as massive to poorly bedded mudstone and muddy sandstone.

It is expected localised non-engineered fill may be present from historical development earthworks and/or landscaping works.

[1,2] *Source: https://app.grip.co.nz*
[2] *Source: https://fndc.maps.arcgis.com/apps/webappviewer/index.html?id=9b351ce681e34ec29443ae1a6468cc2c*
[3] *https://data.gns.cri.nz/geology/*

Existing Geotechnical Information

Existing subdivision and/or Building Consent ground investigations were not made available to Geologix at the time of writing. Additionally, a review of available GIS databases, including the New Zealand Geotechnical Database[4] did not indicate borehole records within 500 m of the site.

Site Walkover Survey

A site walkover survey was undertaken by Geologix on 7 January 2026. The walkover survey was scheduled to confirm the above assumptions and to identify any visible signs of geotechnical hazards at the site. The results of the walkover survey are summarised as follows:

A visual walkover survey of the property confirmed:

- Topography is in general accordance with that outlined above and the available GIS contours.
- Existing structures were noted over the site at Lot 1, aligning with structures shown on the FNDC Maps.
- An overland flow path was observed northwest of Lot 2, which is not indicated on GeoMaps.
- Boulder outcrops were observed on the northeast of Lot 2.
- Generally, the grassed pasture showed no visible signs of deep-seated land instability, such as hummocky and/or terraced ground, within the proposed building platform during the walkover. However, it is suspected that hummocky features may be present on the western side, based on our desktop studies, and could not be observed on site due to vegetation cover.

Ground Investigations

A shallow intrusive ground investigation was undertaken by Geologix on 7 January 2026. The ground investigation was scoped to provide parameters for our digital slope stability model. The ground investigation comprised:

- Three hand auger boreholes, designated HA01, HA02, and HA03, were drilled within the building site to a target depth of 5 m below ground level (bgl). All boreholes were refused between 1.3 and 3.2 m bgl due to the hard strata encountered.

Ground Conditions

Arisings recovered from the exploratory boreholes were logged by a qualified geotechnical engineering professional in accordance with New Zealand Geotechnical Society guidelines[5]. Engineering borehole logs are presented as Appendix to this report and approximate borehole positions recorded on Drawing No. 200. Strata identified during the ground investigation can be summarised as follows:

- **Topsoil encountered to depth of 0.2m bgl.** This unit described as topsoil, silt, trace of rootlets, brown to dark brown, moist.
- **Colluvial deposits to depths 1.3 to >3.2 m bgl.** The colluvial deposits comprising generally clayey silt, silt, clay and silty clay, with trace of gravel. The alluvium/colluvium was detailed as brown with light brown mottling, light brown with light grey mottling, moist to wet and of low to high plasticity.

[4] https://www.nzgd.org.nz/

[5] *New Zealand Geotechnical Society, Field Description of Soil and Rock, 2005.*

Seventeen in-situ field vane tests were undertaken within the Colluvium. Vane shear strengths were recorded with values ranging between 71 and 130 kPa, indicative of stiff soils. A characteristic unit vane shear strength of 96 kPa was calculated at 95% confidence.

- **Inferred hard/ dense deposits to depths >1.3 to >4.2 m bgl**

  Dynamic Cone Penetration (DCP) tests were conducted at the base of the hand auger boreholes, with refusal depths ranging from >1.3 m to >4.2 m below ground level (bgl). For HA01 and HA03, the DCP tests were refused at depths of 4.2 m and 1.3 m bgl, respectively.

  Gravels cannot be easily drilled with a hand auger and field vane tests do not return accurate results**.** The testing method at the hand auger termination depth was therefore changed to DCP techniques.

Groundwater

No groundwater was encountered during our ground investigation. However, groundwater typically fluctuates with seasons and rainfall and may be higher/ lower than at the time of our ground investigation. It is recommended that during any earthworks should any water ingress be noted that further advice is sought from Geologix which may require amendments to the recommendations of this report.

Based on the above, we have developed a ground model, outlined as Table 1 which is expected to underly the building site subject to this investigation. Outside of our ground investigation area this is expected to vary, and conditions have been inferred between exploratory positions.

Table 1: Summary of Ground Investigations

Hole ID	Hole Depth[1]	Depth of Topsoil[1]	Depth Range of Stiff Soils[1,2]	Depth to DCP Refusal[1]	Groundwater[3]
HA01	3.2 m	0.2 m	0.2 – > 3.2 m	4.2 m	NE
HA02	1.8 m	0.2 m	0.2 – > 1.8 m	NE	NE
HA03	1.3 m	0.2 m	0.2 – > 1.3 m	1.3 m	NE

1. *All depth taken as below existing ground level (bgl.)*
2. *Adopting Bjerrum correction factor 0.6 from the characteristic vane shear strength*
3. *On the day of drilling*
4. *NE – Not Encountered*

Preliminary Geotechnical Assessment

Based on the results of the executed ground investigation, Geologix have undertaken a geotechnical assessment relevant to the subject site.

Geotechnical Design Parameters

Geotechnical design parameters are presented in Table 2 below. They have been developed based on the ground investigation and experience with similar materials.

Table 2: Geotechnical Effective Stress Parameters

Geological Unit	Unit Weight, kN/m3	Effective Friction Angle, °	Effective Cohesion, kPa	Undrained shear strength, kPa
Cohesive Colluvial Deposits	18	26	3	56*
Granular Colluvial Deposits	19	34	0	NA

* Adopting Bjerrum correction factor of 0.6 from characteristic vane shear strength.

Site Subsoil Class

The site has been designated as Site Subsoil Class C according to the provisions of NZS1170:2004[6].

Seismic Hazard

Table 3 presents the return periods for earthquakes with ULS and SLS 'unweighted' PGAs and design earthquake loads for the corresponding magnitude. The PGAs were determined using building Importance Level (IL) 2, defined by NZS1170.5:2004.

Table 3: Summary of Seismic Hazard Parameters

Limit State	Effective Magnitude	Return Period (years)	Unweighted PGA
ULS	6.5	500	0.19 g
SLS	5.9	25	0.05 g

Liquefaction Potential

Liquefaction occurs when excess pore pressures are generated within loose, saturated, and generally cohesionless soils (typically sands and silty sands with <30 % fines content) during earthquake shaking. The resulting high pore pressures can cause the soils to undergo a partial to complete loss of strength. This can result in settlement and/ or horizontal movement (lateral spread) of the soil mass.

The Geologix ground investigation indicates the site to be predominantly underlain by fine-grained, non-dilative, and plastic behaviour of the soils. Based on the materials strength and consistency, and our experience with these materials, there is no liquefaction potential / risk in a design level earthquake event.

Soil Expansivity

Clay soil may undergo appreciable volume change in response to changes in moisture content and be classed as expansive. The reactivity and the typical range of movement that can be expected from potentially expansive soils underlying any given building site depends on the amount of clay present, the clay mineral type, and the proportion, depth, and distribution of clay throughout the soil profile. Clay soils typically have a high porosity and low permeability causing moisture changes to occur slowly and produce swelling upon wetting and shrinkage upon drying. Apart from seasonal moisture changes (wet winters and dry summers) other factors that can influence soil moisture content include:

- Influence of garden watering and site drainage.
- The presence of mature vegetation.
- Initial soil moisture conditions at the time of construction.

Based on our experience, laboratory analysis within the strata on other projects in the local area and site observations, the shallow soils are conservatively expected to meet the requirements of a highly expansive or Class H soil type. In accordance with AS2870:2011[7] and New Zealand Building Code[8], Class H or Highly Expansive soils typically have a soil stability index (I_{SS}) range of 3.8 to 6.5% and a 500-year design characteristic surface movement return (y_s) of 78 mm.

A quantification of the expansive soil class assumptions can be made by geotechnical laboratory analysis at the Building Consent stage.

[6] *NZS1170.5:2004, Structural Design Actions Part 5: Earthquake Actions Clause 3.1.3.*
[7] *AS2870, Residential Slabs and Footings, 2011.*
[8] *New Zealand Building Code, Structure B1/AS1 (Amendment 19, November 2019), Clause 7.5.13.1.2.*

Preliminary Slope Stability Analysis

As part of supporting the preliminary assessment of stability, we have evaluated the preliminary remedial design options within stability analysis software Slide 2 Version 9.04, developed by RocScience Inc.

The purpose of the stability assessment was to:

- Provide a working, accurate ground model in relation to site stability refined according to observed conditions and the results of this ground investigation.
- Develop a development engineering solution with any specific geotechnical stability requirements, if required.
- Inform the requirements of Consent, developed architectural design and any further engineering works.

Limit equilibrium stability analysis was adopted in the analysis to express the results as a Factor of Safety (FS). When FS = 1.0, the represented mechanism is in equilibrium with the disturbing, active forces equal to the resisting, stabilising forces. A lower FS indicates that instability could occur under the modelled scenario whereas a higher FS demonstrates a margin of safety in respect of stability.

Minimum FS criteria have been developed for use in development by Auckland Council[9]. Modelling three separate event scenarios the accepted minimum FS are summarised as follows:

- Minimum FS = 1.5 for static, normal groundwater conditions.
- Minimum FS = 1.3 for elevated groundwater conditions (storm events).
- Minimum FS = 1.0 for dynamic, seismic events with a PGA of 0.19 g.

Preliminary Stability Analysis Results

Slope stability analysis results are appended in full to this report and summarised below as Table 4.

Table 4: Summary of Stability Analysis Results

Profile	Scenario	Global Min.	Development Footprint (min FS)	Result
Existing condition -Section A	Static	1.77	>1.5	Pass
	Elevated GW	0.93	<1.3	Fail, requires support
	Seismic	1.14	>1.0	Pass

1. *Static, normal groundwater minimum FS = 1.5*
2. *Static, elevated groundwater minimum FS = 1.3*
3. *Dynamic, seismic conditions minimum FS = 1.0*

Preliminary Stability Analysis Conclusions

The developed slope stability model is considered to be a reasonable representation of the observed conditions on-site.

The model is considered to be consistent with the geological knowledge of the area from Council records and risk assessments. The building demonstrates an adequate factor of safety under static and seismic conditions, but not under conditions involving elevated groundwater/ storm events. The model results indicate that potential failure mechanisms are translational, involving sliding along the upper boundary of granular deposits to a maximum depth of 4.85 m below ground level (bgl) along the southern side of the

[9] *Auckland Council, Code of Practice for Land Development and Subdivision, Section 2 Earthworks and Geotechnical Requirements, Version 2.0, May 2023.*

building platform. Within the building platform, the calculated potential failure depth is shallower, at approximately 3.3 m bgl.

This demonstrates that the downslope portion of the structure is subject to instability occurring occasionally under elevated ground water conditions, likely seasonally, which can lead to displacement of the foundations.

The stability model satisfies minimum residential criteria under static and seismic loading; however, elevated groundwater conditions may permit non-circular failure surfaces to extend into the area shown on Drawing No. 200, thereby requiring the establishment of a Building Restriction Line (BRL). The preliminary BRL confines residential development to the northern portion of the site, indicated as Developable Area – Geotechnical Low Risk. Any development beyond the BRL will require engineered stabilisation measures, including retaining structures, palisade walls, or leading-edge piles, to manage global instability and comply with Council's regulatory requirements.

Preliminary Geotechnical Recommendations

The following preliminary geotechnical recommendations have been developed based on a typical, conceptual rural residential development formed within the building sites reviewed within the scope of this report. It is recommended these conceptual recommendations are reviewed at the Building Consent stage once final development plans are available and advanced by development specific geotechnical investigation.

Concept Foundation
It is recommended that where the building site extends beyond the Building Restricted Line (BRL), global instability be considered and the site be adequately supported by a specifically engineered retaining wall and/or deep end-bearing and leading-edge piles. Where such measures are implemented, standard shallow foundation options, such as reinforced concrete rafts, strip footings, or shallow piles, may be considered suitable. It is further recommended that leading-edge piles be designed to resist soil creep and extend to the depth of hard Waititi soils regardless of which side of the BRL they are located.

Non-engineered fill should not be used as a bearing strata to minimise the potential for excessive total and/ or differential settlement. It is recommended that non-engineered fill, any underlying soft spots (S_u <60kPa) and any other unsuitable or deleterious materials (such as relic foundations, driveway hardstanding etc.) are sub-excavated and replaced with suitably selected and compacted materials such as GAP65 hard fill.

At this stage, based on preliminary assessments, it is expected that the bearing strata will be highly expansive. However, as part of the Building Consent ground investigation, it is recommended a disturbed sample is taken from the proposed bearing strata and subject to geotechnical laboratory analysis to quantify the expansivity class.

Based on the natural formation having an average undrained shear strength of >50 kPa for any ground bearing slabs, engineered fill and/ or natural undisturbed soils then it is expected that either shallow standard raft, strip footing or shallow pile foundations can be adopted for the proposed dwelling. Such foundations may be designed by a professional structural engineer adopting an Ultimate Bearing Capacity of 250 kPa for a highly expansive soil type and a geotechnical reduction factor of 0.5.

It is understood that one option for the foundation may be to use a timber pole foundation to support the building platforms. All piles should be taken down through Waitiiti Formation residual soils to terminate a

minimum of 3x pile diameters, (3B) into the hard strata. Pile end bearing and skin friction parameters are provided in Table 6.

Table 6: Piled Foundations and Leading-Edge Piles Geotechnical Parameters

Strata	Geotechnical Design Parameters	
Stiff Waitiiti Formation	Ultimate end-bearing capacity	450 kPa/m^2
	ULS design end-bearing capacity[1]	225 kPa/m^2
	SLS design end-bearing capacity	150 kPa/m^2
	Ultimate skin friction[2]	30 kPa
	ULS design skin friction[1]	15 kPa
	SLS design skin friction	10 kPa

1. *Based on S_u = 50 kPa from available data.*
2. *Adopting a geotechnical strength reduction factor of 0.5.*
3. *Adopting S_u * α. With α determined from Figure 3.2.4.1 of B1/ VM2.*

If groundwater is encountered within the pile holes, tremie concrete pour methodology will most likely be required to displace groundwater and an allowance should be made for this by the Contractor.

Concept Retaining Walls

No specific development plans were provided to Geologix at the time of writing.

It is recommended that all retaining walls are designed by a professional engineer familiar with the findings and geotechnical parameters of this report. Geotechnical design input may be required to consider retaining wall deflection limits.

Based on the results of the ground investigation and for 0^0 backslopes above the retaining structure, earth pressure parameters for design are presented within Table 7 below.

Table 7: Earth Pressure Parameters

Strata	At Rest Pressure Coefficient, K_O	Active Pressure Coefficient, K_A	Passive Pressure Coefficient, K_P
Cohesive Alluvial/ Colluvial Deposits	0.562	0.347	3.049
Granular Alluvial/ Colluvial Deposits	0.441	0.254	4.847

1. *Adopts soil/ wall friction coefficient of 0.67 for timber according to NZBC B1/VM4 Table 2.*
2. *Considers 0^0 backslope only. Parameters to be modified by design engineer for any sloping backfill/ ground.*

It is recommended that a 100 mm diameter perforated drain coil and cohesionless backfill (minimum 300 mm wide) is installed behind all retaining walls to control any temporary hydrostatic pressures.

It must be understood that retaining walls or leading edge piles beyond the BRL provided will be required to be designed to contribute to the global stability of the building platform.

Further Engineering Works

This report was written based on the conceptual building site locations explained to Geologix at the time of writing and a typical, concept rural residential development scenario. It is recommended that this report is reviewed and advanced as required at the Building Consent stage when site specific development plans of the future dwellings and earthworks are available. The future geotechnical assessment should cover the following:

- Hand tool ground investigation as a minimum.
- Site specific digital slope stability modelling for Building Site taking into account developed plans for the site.

- Geotechnical Investigation Report by a chartered professional engineer suitable for Building Consent.

Limitations

This report has been prepared for Kristy Atkinson as our client. It may be relied upon by our Clients and their appointed Consultants and Contractors for the purpose of Consent as outlined by the specific objectives in this report. This report and associated recommendations, conclusions or intellectual property is not to be relied upon by any other party for any purpose unless agreed in writing by Geologix Consulting Engineers Ltd and our Client. In any case the reliance by any other party for any other purpose shall be at such parties' sole risk and no reliability is provided by Geologix Consulting Engineers Ltd.

The opinions and recommendations of this report are based on plans, specifications and reports provided to us at the time of writing, as referenced. Any changes, additions or amendments to the project scope and referenced documents may require an amendment to this report and Geologix Consulting Engineers should be consulted. Geologix Consulting Engineers Ltd reserve the right to review this report and accompanying plans.

The recommendations and opinions in this report are based on arisings extracted from exploratory boreholes at discrete locations and any available existing borehole records. The nature and continuity of subsurface conditions, interpretation of ground condition and models away from these ground investigation locations are inferred. It must be appreciated that the actual conditions may vary from the assumed ground model. Difference from the encountered ground conditions during construction may require an amendment to the recommendations of this report.

Prepared by:	Reviewed by:	Approved by:
		
John Konsal Senior Geotechnical Engineer, CEng, MICE (UK), CMEngNZ	Andre Whyte Principal Geotechnical Engineer, CPEng, CMEngNZ, BSc	Edward Collings Managing Director CPEng, CMEngNZ, CEnvP, MPhys (Hons)

Enclosures:

- Geotechnical Site Plan, Drawing No. 200.
- Exploratory Hole Records, HA01, HA02 and HA03.
- Slope stability model.

LEGENDS

- MINOR CONTOURS
- MAJOR CONTOURS
- INDICATIVE DEVELOPABLE AREA
- BUILDING RESTRICTION LINE
- OVERLAND FLOW PATH
- GEOLOGIX HAND AUGER JAN 2026

EXISTING OVERLAND FLOOD PATH

SECTION A - A'

HA01

HA03

DEVELOPABLE AREA - GEOTECHNICAL LOW RISK

BUILDING RESTRICTION LINE (BRL)

HA02

0 10 20 m

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DRAWN: JK	PROJECT: C0735N-19 MARTIN ROAD, OMAPERE						STATUS : FINAL (NOT FOR CONSTUCTION)
VERIFIED: AW		0	22/01/26	FIRST ISSUE	JK	EC	DRAWING TITLE: GEOTECHNICAL SITE PLAN
APPROVED: EC	CLIENT: KIRSTY ATKINSON	REV	DATE	REVISION DETAILS	BY	APP	DRAWING NUMBER: 200 SCALE: 1:500

INVESTIGATION LOG

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Hole No:	HA01
Job No:	C0735N

Client: Kirsty Atkinson
Project: 19 Martin Road & Waihuka Road, Omapere
Date: 07-01-2026
Contractor: Geologix

Site Address: 19 Martin Road & Waihuka Road, Omapere
Co-Ordinates:
Method: HA + DCP
Logged By: CA
Vane No: 3467

DEPTH (M)	MATERIAL DESCRIPTION (SEE CLASSIFICATION AND SYMBOLOGY SHEET FOR DETAILS)	LEGEND	SAMPLE	VANE SHEAR STRENGTH (KPA) 50 100 150	PEAK	RESIDUAL	SCALA PENETROMETER (Blows/100mm) 3 6 9 12 15 18 21 24 27	WATER
0	SILT, with trace rootlets; brown. Very stiff; moist; friable, [TOPSOIL].							
0.2 m	Clayey SILT; brown mottled light brown. Very stiff; moist; low plasticity, [COLLUVIUM].			185	185	34		
				131	131	56		
				120	120	56		
1 m	Silty CLAY; light brown mottled light grey. Very stiff; moist to wet; high plasticity, [COLLUVIUM].			128	128	86		
				143	143	113		
1.7 m	CLAY; light brown. Very stiff; wet; high plasticity, [COLLUVIUM].			160	160	113		
				160	160	113		
2.3 m	Silty CLAY, with trace gravel; light brown mottled light grey. Very stiff; wet; high plasticity. Gravel is fine, sub-rounded, [COLLUVIUM].			160	160	88		
				160	160	88		
				177	177	91		
3.2 m	Terminated at 3.2 m							

4 5 6 8 9 9 10 13 15 20

REMARKS:

1. Hand Auger terminated at 3.20m bgl due to hard strata.
2. Continue with DCP from 3.20m bgl to 4.20m bgl.
3. Groundwater not encountered during drilling.

Shear Vane (kPa)		Scala Blows /100m	
< 12	Very Soft	0 - 2	Very Loose
12 - 25	Soft	1 - 3	Loose
25 - 50	Firm	3 - 7	Med Dense
50 - 100	Stiff	7 - 17	Dense
100 - 200	Very Stiff	> 17	Very Dense
200 - 500	Hard		

DURING DRILLING (M) ▽ SHORT TERM AFTER (M) ▼ LONG TERM AFTER (M) ▼

INVESTIGATION LOG

geologix consulting engineers

Hole No:	HA02
Job No:	C0735N

Client: Kirsty Atkinson
Project: 19 Martin Road & Waihuka Road, Omapere
Date: 13-01-2026
Contractor: Geologix

Site Address: 19 Martin Road & Waihuka Road, Omapere
Co-Ordinates:
Method: HA + DCP
Logged By: CA
Vane No: 3467

DEPTH (M)	MATERIAL DESCRIPTION (SEE CLASSIFICATION AND SYMBOLOGY SHEET FOR DETAILS)	LEGEND	SAMPLE	VANE SHEAR STRENGTH (KPA) 50 100 150	PEAK	RESIDUAL	SCALA PENETROMETER (Blows/100mm) 3 6 9 12 15 18 21 24 27	WATER
0	SILT, with trace rootlets; dark brown. Very stiff; moist; friable, [TOPSOIL].							
0.2 m	SILT, with trace gravel; light brown mottled dark brown. Very stiff; moist; low plasticity. Gravel is fine, sub-angular, [COLLUVIUM].			101	101	40	2	
0.6 m	Silty CLAY; light brown mottled light grey. Very stiff; wet; high plasticity, [COLLUVIUM].			143	143	83	4	
1				123	123	66	6	
1.6 m	Clayey SILT; light reddish brown mottled light grey. Very stiff; moist to wet; low plasticity, [COLLUVIUM].			145	145	70	7	
1.8 m	Terminated at 1.8 m			200	200		9	
2				200	200		11	
3							12	
4							14	
5							15	
							15	

REMARKS:

1. Hand Auger terminated at 1.80m bgl due to hard strata.
2. Continue with DCP from 1.80m bgl to 2.80m bgl.
3. Groundwater not encountered during drilling.

DURING DRILLING (M) ▽ SHORT TERM AFTER (M) ▼ LONG TERM AFTER (M)

Shear Vane (kPa)		Scala Blows /100m	
< 12	Very Soft	0 - 2	Very Loose
12 - 25	Soft	1 - 3	Loose
25 - 50	Firm	3 - 7	Med Dense
50 - 100	Stiff	7 - 17	Dense
100 - 200	Very Stiff	> 17	Very Dense
200 - 500	Hard		

INVESTIGATION LOG

Hole No: **HA03**
Job No: **C0735N**

Client: Kirsty Atkinson
Project: 19 Martin Road & Waihuka Road, Omapere
Date: 13-01-2026
Contractor: Geologix

Site Address: 19 Martin Road & Waihuka Road, Omapere
Co-Ordinates:
Method: HA + DCP
Logged By: CA
Vane No: 3467

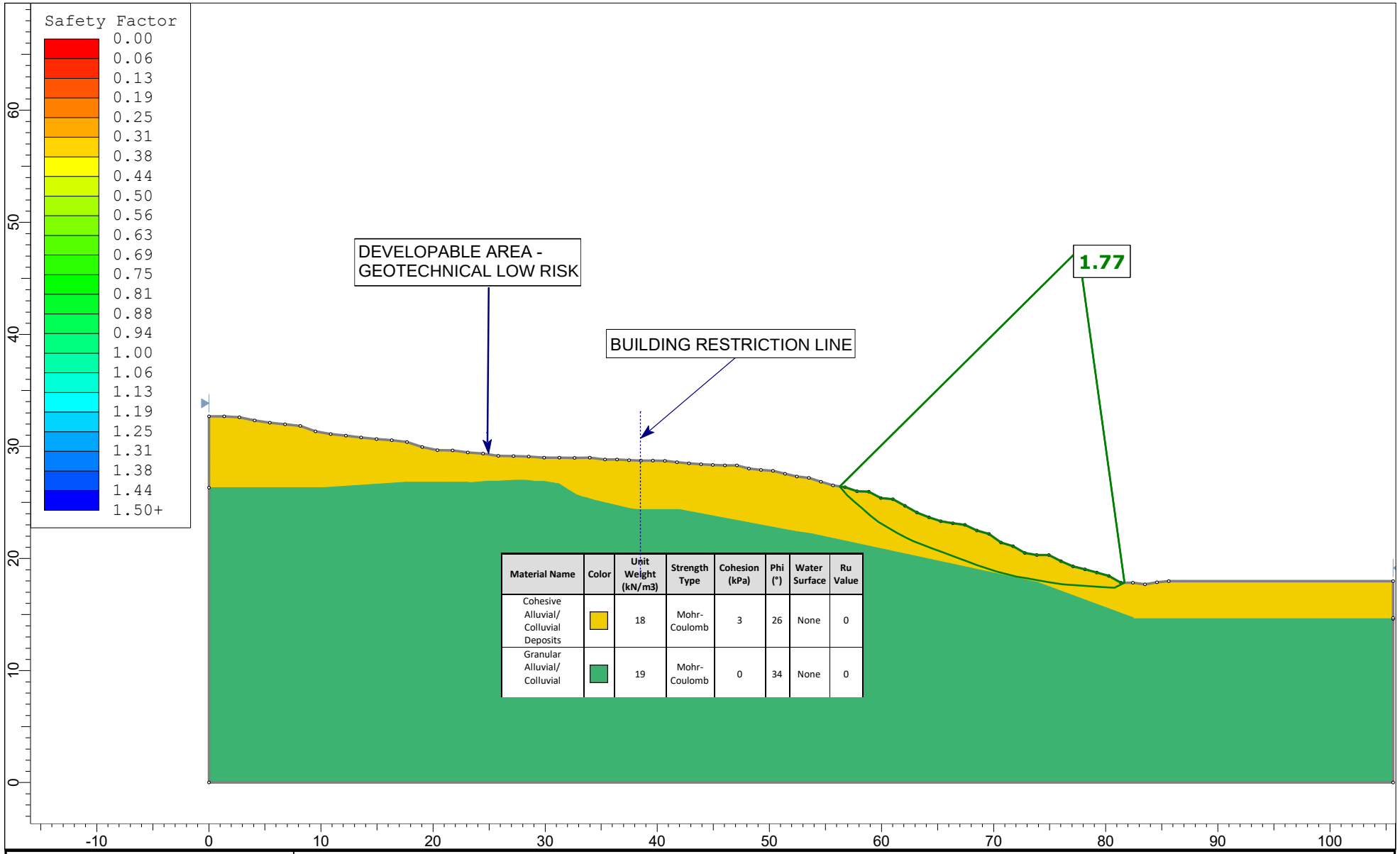
DEPTH (M)	MATERIAL DESCRIPTION (SEE CLASSIFICATION AND SYMBOLOGY SHEET FOR DETAILS)	LEGEND	SAMPLE	VANE SHEAR STRENGTH (KPA) 50 100 150	PEAK	RESIDUAL	SCALA PENETROMETER (Blows/100mm) 3 6 9 12 15 18 21 24 27	WATER
0	SILT, with trace rootlets; dark brown. Very stiff; moist; friable, [TOPSOIL].							
0.2 m	SILT, with trace gravel; dark brown mottled light brown. Very stiff; moist; low plasticity. Gravel is fine to medium, sub-angular, [COLLUVIUM].			174	174	40		
0.6 m	Clayey SILT, with trace gravel; light brown mottled light grey. Very stiff; wet; high plasticity. Gravel is fine to medium, sub-angular, [COLLUVIUM].			157	157	57		
1				160	160	54		
1.3 m	Terminated at 1.3 m			200	UTP		25	
2								
3								
4								
5								

REMARKS:

1. Hand Auger terminated at 1.30m bgl due to hard strata.
2. Continue with DCP from 1.30m bgl to 1.30m bgl.
3. Groundwater not encountered during drilling.

DURING DRILLING (M) ▽ SHORT TERM AFTER (M) ▼ LONG TERM AFTER (M)

Shear Vane (kPa)		Scala Blows /100m	
< 12	Very Soft	0 - 2	Very Loose
12 - 25	Soft	1 - 3	Loose
25 - 50	Firm	3 - 7	Med Dense
50 - 100	Stiff	7 - 17	Dense
100 - 200	Very Stiff	> 17	Very Dense
200 - 500	Hard		



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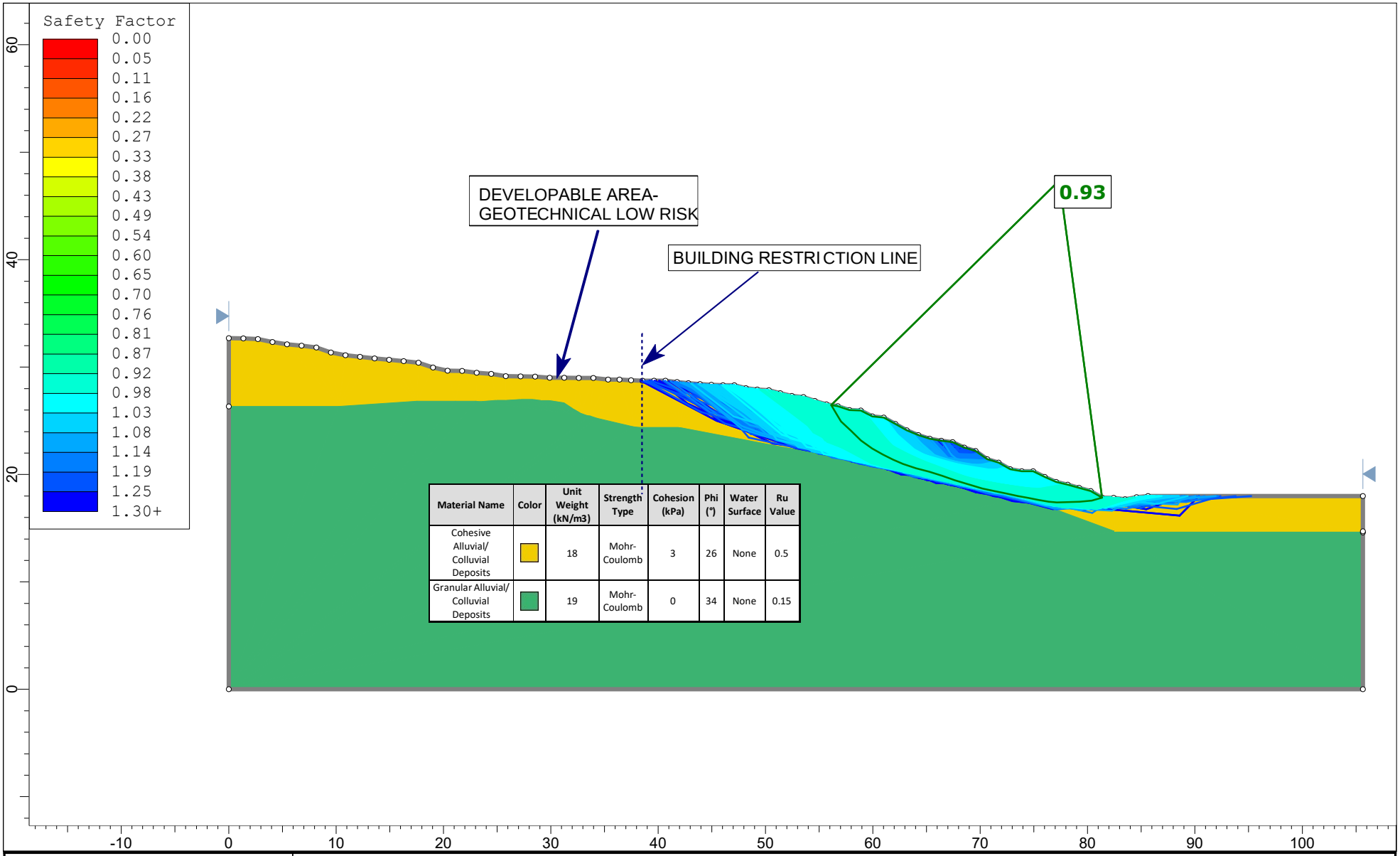
SLIDEINTERPRET 9.040

Project	19 Martin Road		
Analysis Description	Static		
Drawn By	JK	*Company*	Geologix Consulting Engineers
Date	12/01/2026	*File Name*	C0735N.slmd



Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Ru Value
Cohesive Alluvial/ Colluvial Deposits		18	Mohr-Coulomb	3	26	None	0.5
Granular Alluvial/ Colluvial Deposits		19	Mohr-Coulomb	0	34	None	0.15

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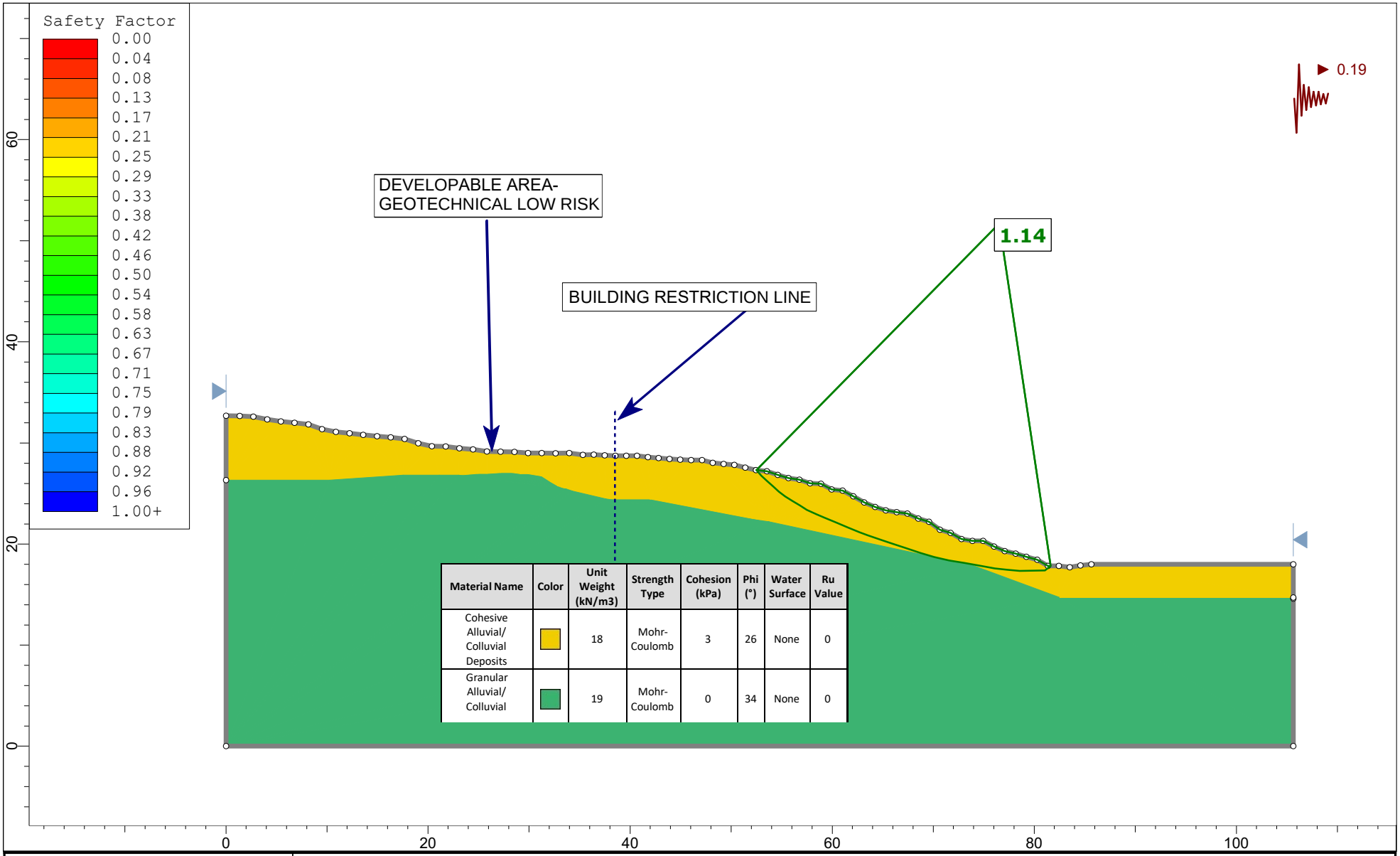
SLIDEINTERPRET 9.040

Project	19 Martin Road		
Analysis Description	Elevated GW		
Drawn By	JK	*Company*	Geologix Consulting Engineers
Date	12/01/2026	*File Name*	C0735N.slmd



Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Ru Value
Cohesive Alluvial/ Colluvial Deposits		18	Mohr-Coulomb	3	26	None	0
Granular Alluvial/ Colluvial		19	Mohr-Coulomb	0	34	None	0

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SLIDEINTERPRET 9.040

Project	19 Martin Road		
Analysis Description	Seismic-ULS		
Drawn By	JK	*Company*	Geologix Consulting Engineers
Date	12/01/2026	*File Name*	C0735N.slmd

Appendix 6

Subdivision Site Suitability Engineering Report

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SUBDIVISION SITE SUITABILITY ENGINEERING REPORT

CNR 19 MARTIN ROAD & WAIHUKA ROAD,OMAPERE

KIRSTY ATKINSON

C0735N-S-01
JANUARY 2026
REVISION 1

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DOCUMENT MANAGEMENT

Document Title	Subdivision Site Suitability Engineering Report
Site Reference	Cnr 19 Martin Road & Waihuka Road, Omapere
Client	Kirsty Atkinson
Geologix Reference	C0735N-01-S
Issue Date	January 2026
Revision	01
Prepared	Fred Sennoga Civil Engineer
Reviewed	Sebastian Hicks Principal Civil Engineer, CPEng Reg. 1168062, CMEngNZ, IntPE(NZ) /APEC Engineer
Approved	Edward Collings Managing Director, CEnvP Reg. 0861, CPEng Reg. 1033153, CMEngNZ
File Reference	*C0735N-S-01*

REVISION HISTORY

Date	Issue	Prepared	Reviewed	Approved
January 2026	First Issue	FS	SH	EC

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TABLE OF CONTENTS

1 INTRODUCTION

This Site Suitability Engineering Report has been prepared by Geologix Consulting Engineers Ltd (Geologix) for Kirsty Atkinson as our Client in accordance with our standard short form agreement and general terms and conditions of engagement.

Our scope of works has been undertaken to assist with the Resource Consent application in relation to the proposed subdivision of Lot 3 DP 198969, 19 Martin Rd & Waihuka Rd, Omapere, the 'site', to create one new residential lot.

This assessment addresses preliminary engineering elements of wastewater, stormwater, water supply, firefighting, access and associated earthworks requirements to provide safe and stable building platforms with less than minor effects on the environment as a result of the proposed activities outlined in Section 1.1. This report is purposed to support the Resource Consent application and guide the requirements of future detailed design and/ or engineering plan approval processes. This report should be read in conjunction with other reports and documents prepared in support of the application.

1.1 Proposal

A proposed scheme plan was presented to Geologix at the time of writing, prepared by Thomson Survey[1] and has been reproduced within Appendix A as Drawing No 100. It is understood from the scheme plan and typical assumptions that the new lot will comprise a maximum building coverage of 150 m^2 within a designated 14 x 14 m square building site. The existing development will remain within proposed lot 1. A new driveway and vehicle crossing will provide access to the new lot 2 from Waihuka Road through a southern panhandle access to the proposed subdivision.

The subdivision is proposed to be serviced for water supply through on-site sources. Utility services such as power and telecoms with connect with new connections from the existing public networks. Wastewater and stormwater will be serviced on site. The above is summarised in Table 1 and detailed further within this report, with reference to the Preliminary Engineering Design Plans enclosed within Appendix A. Any amendments to the referenced scheme plan may require an update to the recommendations of this report.

Table 1: Summary of Proposed Subdivision

Proposed Lot No.	Size	Purpose
1	0.3778 ha	Existing residential
2	0.6951 ha	New residential

[1] *Thomson Survey Ltd, Scheme Plan Ref. Proposed Subdivision of Lot 3 DP 198969, December 2025, Ref. 10863.*

1.2 Site Description and Existing Infrastructure

The site is legally described as Lot 3 DP 198969, with a total site area of 1.0728 ha and designated by the FNDC Operative District Plan as within the Coastal Residential zone. The current title comprises an existing dwelling with associated garage and gravel driveway and parking. The balance of the site forms pasture with some bush and scattered trees. Available LiDAR data indicates an overland flow path through the site near the northwest corner of the proposed lot 2 boundary. This overland flow path flows from an existing northern culvert that passes under the ROW as it discharges into the lot.

The property is surrounded by generally similar coastal residential sites, some developed and some vacant with pasture and or natural bush cover. The Opononi Area School is immediately west of the site boundary. Existing infrastructure within this area includes roads, grassed unlined swale drains, vehicle crossing culverts and sewer networks. The site slopes gently from north to south over a range of 29.5 to 18 m RL.

No existing public 3 waters networks are located within the site boundaries. However, a public sewer network is located within the Waihuka Road corridor to the south. Wastewater from the existing dwelling is currently serviced by an on-site wastewater treatment system and disposal field to the southwest corner of the existing dwelling. The system and its disposal field are contained within the proposed lot 1 southwest corner boundaries. The existing roof stormwater discharges into a tank located near the northeast corner of the dwelling within the proposed lot 1 boundary. An isolated smaller black tank is located southeast of the dwelling used for watering gardens. Another larger tank is located in the centre of the driveway roundabout and it is unclear whether this is operational.

Existing features are marked on Drawing No. 100 within Appendix A.

1.3 Mapped Flood Hazard

There is no mapped flood hazard over the property. However, there is a mapped downstream river flood hazard that is located south of the site, on the opposite side of Waihuka Road. The closest extent of this mapped hazard is about 150m from the site boundary, and it is more than 5m lower in elevation. The mapped flooding relates to a stream which drains a bowl-shaped catchment of approximately 140Ha. The catchment is bound by the prominent ridge lines on which Newton Road and Kokohuia Road are situated, to the south, east and north of the site.

The mapped flooding appears to be caused by backing up of flow near the State Highway 12 / Waihuka Road intersection where there is a stream crossing, possibly indicating a lack of culvert and or channel capacity. The development site is positioned about 400m upstream from this SH12 stream crossing position. Considerations for the flood hazard are provided in Section 3.

Figure 1: Location of site in relation to local stream catchment (that contains mapped flood hazard)

2 WASTEWATER ASSESSMENT

As detailed above, wastewater from the existing dwelling is currently serviced by an on-site wastewater treatment system and disposal field to the south of the existing. The system appeared to be in good working order and contained within the proposed lot 1 boundaries. The system is identified on Drawing No. 100 within Appendix A and photographs enclosed within Appendix B.

It is proposed that the new proposed Lot 2 is also serviced by an on-site wastewater treatment system and disposal field.

2.1 Wastewater Volume and Treatment

A preliminary design for proposed Lot 2 is presented in this section and on Drawing No. 100 to demonstrate the proposed new lot can support on-site wastewater management. In lieu

of specific development plans, the preliminary design assumes that the proposed new lot may support up to a five-bedroom dwelling with a peak occupancy of eight people[2].

Roof rainwater collection within on-lot tanks has been proposed for this assessment. The design water volume for roof water tank supply is estimated at 160 litres/ person/ day[3] based upon standard water saving fixtures[4] being installed within the future development. This results in a total daily wastewater generation of 1,280 litres/ day per proposed lot.

No specific treatment system design restrictions and manufacturers are currently in place. Future developers will be required to elect a treatment system and provide system specifications at Building Consent. It is recommended that secondary treatment systems are accounted for within future development. However, primary treatment systems may be suitable, provided the developer can demonstrate suitable treatment quality, disposal area and compliance with the NRC Proposed Regional Plan.

2.2 Wastewater Discharge

To provide even distribution, evapotranspiration assistance and to minimise effluent runoff it is recommended that suitably treated effluent is conveyed to land disposal via Pressure Compensating Dripper Irrigation (PCDI) systems.

Available geological mapping[5] indicates the site to be directly underlain by Waitiiti formation (Otaua Group) mudstone. These Neogene sedimentary rocks can be expected to contain massive to poorly bedded mudstone and muddy sandstone.

A site walkover survey and intrusive ground investigation was undertaken by Geologix on 7 January 2026. Three hand auger boreholes were formed to depths of 3.2m, 1.8m and 13m bgl, in the locations recorded on Drawing No. 100 and engineering logs presented as Appendix C. A qualified engineering geologist recorded the recovered arisings as brown clayey silt with trace gravel with depth, moist and of high plasticity colluvium. Groundwater was not encountered during the ground investigation.

The shallow soils are generally inferred to meet the drainage characteristics of TP58 Category 6/ NZS1547 Category 5. For a typical PCDI discharge system, a Soil Loading Rate (SLR) of 3mm/ day has been adopted from NZS1547 Table 5.2.

The proposed PCDI system may be surface laid, covered with minimum 150 mm mulch and planted with specific evapotranspiration species to provide a minimum of 80 % species canopy cover. Alternatively, lines could be subsurface laid to topsoil with minimum 200 mm thickness and planted with lawn grass. Clean, inert site-won topsoil sourced during

---

[2] TP58 Table 6.1.
[3] TP58 Table 6.2, AS/ NZS 1547:2012 Table H3.
[4] Low water consumption dishwashers and no garbage grinders.
[5] Geological & Nuclear Science, 1:250,000 scale Geological Map, Sheet 2, Whangarei, 2009.

development from building and/ or driveways footprints may be used in the land disposal system to increase minimum thicknesses.

To satisfy the preliminary design, primary and reserve disposal fields are required as follows, as presented on Drawing No. 100.

- **Preliminary Primary Disposal Field.** A minimum PCDI primary disposal field of 427 m^2 laid parallel to the natural contours.
- **Preliminary Reserve Disposal Field.** A minimum reserve disposal field equivalent to 50% of the primary disposal field is required under NRP rule C.6.1.3(9)(b) for secondary or tertiary treatment systems. It is recommended each proposed lot provides a 214 m^2 reserve disposal area.

2.3 Summary and Assessment of Environmental Effects

Based on the above concept design assumptions a summary of the concept wastewater design is presented as Table 2. It is recommended that each lot is subject to Building Consent specific review and design amendment according to final development plans by a suitably qualified professional. This is typically applied as a condition of consent.

Table 2: Concept Wastewater Design Summary

Design Element	Specification
Concept development	Five-bedroom, peak occupancy of 8 (per lot)
Concept design generation volume	180 litres/ person/ day – 1,440 litres/ day/ lot
Water saving measures	Standard. Combined use of 11 litre flush cisterns, automatic washing machine & dishwasher, no garbage grinder[1]
Water meter required?	No
Recommended treatment quality	Secondary
Soil drainage category	TP58 Category 6, NZS1547 Category 5
Soil loading rate	3 mm/ day
Concept primary disposal field size	Surface/ subsurface laid PCDI. Min. 427 m^2
Concept reserve disposal field size	Surface/ subsurface laid PCDI. Min. 50 %, or 214 m^2
Concept disposal field level	Sited above 5 % AEP event. No specific site requirements.
Dosing method	Pump with high water level visual and audible alarm. Minimum 24-hour emergency storage volume.
Stormwater Control	Divert surface/ stormwater drains away from disposal fields. Contour drains not required. Stormwater management discharges downslope away of all disposal fields.
NRC Proposed Regional Plan Activity Status	Permitted.

A preliminary site-specific Assessment of Environmental Effects (AEE) is presented as Appendix D to demonstrate the proposed wastewater disposal concept will have a less than minor effect on the environment. It is recommended that the AEE is reviewed at the time of Building Consent once specific development plans, final disposal field locations and treatment systems are established.

3 STORMWATER ASSESSMENT

To comply with permitted acidity standards for the Coastal Residential zone, the maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 50 % or 1,000 m^2, whichever is the lesser. Any new impervious area shall be managed such that its effective runoff is mitigated in accordance with the Operative Plan and FNDC Engineering Standards 2023 for Flood and Flow Control.

3.1 Impervious Surfaces and Management Concept

Existing impervious surface covering at the time of writing is summarised within Table 3.

Table 3: Summary of Existing Surface Covering

Parameter	Area Lot1	
Roof (including dwelling, garage)	m^2	116
	%	*1.08*
Driveway/ Parking/ tank feature)	m^2	349
	%	*3.25*
RoW A (metal road)	m^2	385
	%	*3.59*
Pervious	m^2	9879
	%	92.08
Total Impervious	m^2	**850**
(as a percentage of total existing lot area 10729m^2)	%	***7.92***
Threshold	50 %	5365 m^2(max.1000m^2 for coastal residential zone)[6]
Meets Permitted Activity Pre Activity		Yes

The proposed activity will increase impervious surfaces across the site. The preliminary design accounts for the following impervious surfaces.

Table 4: Summary of Proposed (Preliminary) Surface Covering

Parameter		Area Lot 1	Area Lot 2
Roof	m^2	116	150
	%	*3.07*	*2.16*
Driveway/ Parking	m^2	349	406 (360m^2 driveway+46m^2parking)
	%	*9.24*	*5.84*
RoW A	m^2	385	0
	%	*44.15*	*0.00*
Pervious	m^2	*2928*	6395
	%	*77.5*	*92.0*
Total Impervious	m^2	850	556
	%	*10.19 (of 3778m^2)*	*8.0 (of 6951m^2)*

[6] *Chapter 10 - COASTAL ENVIRONMENT Section 8 – Coastal Residential Zone Rule 10.8.5.1.6*

Threshold	50 %	1889 m^2 (max.1000m^2 as per coastal residential zone rule)[6]	3476 m^2(max.1000m^2 for coastal residential zone rule)[6]
Permitted		Yes	Yes

Existing Development (Lot 1): Although impervious surfaces of the existing development are not anticipated to increase, as the parent title becomes smaller due to the subdivision the proportion of impervious surfaces to gross lot area increases. This will produce no increase in runoff, and because the impervious area remains within permitted activity threshold, there is no attenuation required.

Future Development (Lot 2): It is proposed for lot 2 that additional/ future impervious surfaces will be mitigated by attenuation within roof water tanks to 80 % of pre-development peak flows in accordance with FNDC Engineering Standards 2023 Table 4-1 and Operative Plan Section 12.7.3.4(a). The preliminary design has been prepared to account for a typical residential development scale to demonstrate the proposed lot can support the intended use. However, the preliminary design must be advanced at Building Consent stage by a future developer.

Access to the newly proposed lot will be established by a new vehicle crossing from Waihuka Road and associated driveway (conceptually considered to be approximately 120m long by 3m wide) to access the proposed conceptual building envelope. The new crossing and driveway will produce an increase in runoff. This runoff is proposed to be offset in the roof tank storage volume attenuation resulting in less than minor adverse effect on the environment. Refer Section 3.3.

3.2 Design Storm Event

FNDC Engineering Standards 2023 Table 4-1 stipulates that flow attenuation controls reduce the post-development peak discharge to 80% of the pre-development condition for the 50% and 20% AEP storm event. Furthermore, the concept design has also considered the 10 % AEP pre-development requirement to comply with NRP Rule C6.4.2(2) and with the Operative District Plan 13.10.4.

Due to potential downstream flooding effects, the design has also considered flood control for the 1% AEP storm event. Consideration has been given to the relative times of concentration (peak flows) of the site's discharge compared to the receiving stream. It is recommended to adopt flow and flood control to benefit the capacity of receiving devices and the stream, particularly for more frequent storm events, but also for the 1% AEP event.

Tank overflow will be dispersed by means of a suitably designed level spreader device or similar energy dissipator device. Outlet dispersion devices will be designed to manage the 1% AEP event to reduce scour and erosion at discharge locations. This shall be finalised to suit final development plans at building consent stage.

Relevant design rainfall intensity and depths have been ascertained for the site location from the NIWA HIRDS meteorological model[7]. Provision for climate change has been adopted by means of applying a factor of 20 % to rainfall intensities, in accordance with FNDC Engineering Standards 2023.

3.3 Preliminary Stormwater Attenuation

The rational method has been adopted by Geologix with run-off coefficients as published by FNDC Engineering Standards[8] to provide a suitable preliminary attenuation design by installing specifically sized low-flow orifices into the attenuation devices.

Lot 2 has an estimated conceptual 406m^2 of impervious area consisting of 150m^2 roof area, 46m^2 parking and 360m^2 driveway. Roof runoff (150m^2) will be collected and over-attenuated to provide offset mitigation for an equivalent of 290m^2 driveway area. The balance of the driveway area (116m^2) cannot be effectively offset by the roof tanks. However, it is recommended that leaving this portion of the driveway unattenuated provides a practicable outcome and will have a less than minor effect, because:

- The area is limited to 116 sqm which represents only 1.7% of the total lot area (the maximum allowable impervious area is the lesser of 50% or 1000m^2 of the development area[6]).
- It will serve the receiving overland flow path/s better to avoid concentrating flows from the driveway into a channel and detention device, but rather have it dispersed more broadly as per pre-development scenario, to mitigate risks of localised scour and erosion.
- With the afore-mentioned consideration of the stream's time of concentration relative to the site, it is recommended that by allowing this balance of driveway runoff to discharge sooner (by not attenuating it), this results in a balanced approach with respect to the site's overall discharge effect and hence overall effect to flooding downstream is suitably managed.

Lot 1 requires no such attenuation as there is no additional impervious area proposed, and the existing impervious area remains within permitted activity threshold.

Calculations to support the preliminary design are presented as Appendix E to this report. A summary of the probable future development attenuation concept design is presented as Table 5 and a typical schematic retention/ detention tank arrangement detail is presented as Drawing No. 400 within Appendix A. As above, it is recommended that this concept design is refined at the Building Consent/ 223 stage as required by conditions of consent.

[7] NIWA High Intensity Rainfall Data System, https://hirds.niwa.co.nz.
[8] FNDC Engineering Standards 2023, Version 0.6, Issued May 2023.

Table 5: Probable Future Development Attenuation Concept

Design Parameter	Flow Attenuation: 50 % AEP (80% of pre-dev)	Flow Attenuation: 20 % AEP (80% of pre-dev)	Flood Control: 10 % AEP	Flood Control: 1 % AEP (80% of pre-dev)
Lot 2 Preliminary Design (150 m² roof, 290 m² driveway offset mitigated; 116m² driveway remains unattenuated)				
Regulatory Compliance	FNDC Engineering Standards Table 4-1	FNDC Engineering Standards Table 4-1	NRC Proposed Regional Plan	FNDC Engineering Standards Table 4-1
Pre-development peak flow	5.84 l/s	7.52 l/s	8.75 l/s	13.04 l/s
80 % pre-development peak flow	4.67 l/s	6.02 l/s	*N/A*	10.43 l/s
Post-development peak flow	9.04 l/s	11.66 l/s	13.58 l/s	20.20 l/s
Total Storage Volume Req.	4567 litres	6003 litres	1258 litres	11000 litres
Concept Summary:	- Attenuation storage calculation accounts for offset flow from 290 m² driveway and parking. Refer Appendix E for calcs in full. - Attenuation for 1% AEP storm represents maximum storage requirement and is adopted for the concept design tank storage. - 2 x 25,000 litre tank is sufficient for attenuation. - 1 % AEP attenuation (in isolation) requires a 17 mm orifice 0.52 m below overflow and bottom 150mm reserved for sediment retention. However regulatory requirements are to consider an additional orifice/s to control the 20% and 50 % AEP event specifically. We note this may vary the concept orifice indicated above. Generally this results in slightly larger volume requirements, but well within the capacity of a single 25,000l tank. This should be considered with detailed design for building consent approval.			

3.4 Stormwater Quality

The key contaminant risks of the site setting include:

- Sediments and minor contaminants washed from impervious surfaces.
- Leaf matter, grass, and other organic debris.

Stormwater treatment requirements are minor to maintain good quality stormwater discharge. Stormwater quality will be provided by:

- Leaf guards on roof guttering/ first flush devices on roof guttering and downpipes.
- Rainwater tank for potable use onsite only to be filled by roof runoff.
- Room for sedimentation (minimum 150 mm recommended as per Auckland Council GD01) within the base of the stormwater attenuation roof runoff tanks as dead storage volume.

The risk of other contaminants being discharged out of the site boundaries (hydrocarbons, metals etc.,) because of the proposed activities once stormwater has been processed through the above measures that will affect the downstream water quality is considered low.

4 POTABLE WATER & FIRE FIGHTING

In the absence of potable water infrastructure within Martin Road or within the site it is recommended that roof runoff water tanks are adopted for potable water supply with appropriate filtration and UV disinfection at point of use. Consideration to any stormwater attenuation volumes must also be given when selecting the volume of potable water in Building Consent.

Furthermore, the absence of potable water infrastructure and fire hydrants within both Martin Road & Waihuka Road requires provision of the on-lot roof water (or commercial water) supply tanks to be used for firefighting purposes. Specific analysis and calculation for firefighting is outside the scope of this report and may require specialist input. Supply for firefighting should be made in accordance with SNZ PAS4509:2008.

5 POWER AND TELECOM

Existing services within the vicinity of the proposed lots are demonstrated by BeforeUDig plans within Appendix F. Proposed lot 1's existing utility services appear to be provided by underground connections to the site. The power and telecommunication networks will be extended to the proposed lot 2 boundary from the in-road networks, and in accordance with appropriate standards and subject to network operator connection applications.

6 EARTHWORKS

The following earthworks provisions are anticipated to form the subdivision:

- **Service trenching**. Power, telecom pipeline trenching. (insignificant)
- **Vehicle crossing to lot 2**. To form concrete apron 3m wide at the road boundary and 13.0 m wide at the carriageway intersection. (< 12m^3)

Proposed earthwork volumes are within the 200m^3 Permitted Activity volume limit outlined by FNDC District Plan Rule 12.3.6.1.3(a) and the maximum cut and fill height of <3.0 m combined cut and fill to comply with 12.3.6.1.3(b).

7 INTERNAL ACCESS

The existing vehicle crossing off Martin Road will continue to provide access to lot 1 and the existing Martin Road carriageway that separates lot 1 and proposed lot 2 will be designated as a Right of Way A. The existing access metal width was measured at 7 m. The vehicle crossing has an existing stormwater culvert near proposed Lot 1 that will remain as-is. The existing consented vehicle crossing will remain and function in its current condition. No modifications are recommended.

Lot 2 will require a new vehicle crossing from Waihuka Road at the southernmost boundary of the parent site. This is recommended to match the FNDC/S/2 standard. It is recommended

that this is constructed at subdivision formation stage. The above is shown on Drawing No. 100 within Appendix A. The final alignment of the conceptual driveway can be arranged at future development stage but must consider the impervious area allowances provided.

8 LIMITATIONS

This report has been prepared for Kirsty Atkinson as our Client. It may be relied upon by our Client and their appointed Consultants, Contractors and for the purpose of Consent as outlined by the specific objectives in this report. This report and associated recommendations, conclusions or intellectual property is not to be relied upon by any other party for any purpose unless agreed in writing by Geologix Consulting Engineers Ltd and our Client. In any case the reliance by any other party for any other purpose shall be at such parties' sole risk and no reliability is provided by Geologix Consulting Engineers Ltd.

The opinions and recommendations of this report are based on plans, specifications and reports provided to us at the time of writing, as referenced. Any changes, additions or amendments to the project scope and referenced documents may require an amendment to this report and Geologix Consulting Engineers should be consulted. Geologix Consulting Engineers Ltd reserve the right to review this report and accompanying plans.

The recommendations and opinions in this report are based on arisings extracted from exploratory boreholes at discrete locations and any available existing borehole records. The nature and continuity of subsurface conditions, interpretation of ground condition and models away from these specific ground investigation locations are inferred. It must be appreciated that the actual conditions may vary from the assumed ground model. Differences from the encountered ground conditions during subdivision construction may require an amendment to the recommendations of this report.

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APPENDIX A

Drawings

LEGEND:

- 75.0 MAJOR CONTOUR
- MINOR CONTOUR
- INDICATIVE VXG FNDC TYPE 1A WITH CULVERT
- PROPOSED RIGHT TO DRAIN
- PROPOSED LOTS & EASEMENTS
- PROPOSED PRIMARY WASTE DISPOSAL FIELD
- PROPOSED SECONDARY WASTE DISPOSAL FIELD
- CONCEPT BUILDING ENVELOPE (14m x 14m)
- CONCEPT 2 x 25,000 LITRE WATER TANKS ATTENUATING TO DISPERSION DEVICE TO CONTROL 300m² AREA
- HAXX GEOLOGIX HAND AUGER
- OVERLAND FLOWPATH (OLFP)
- SW SWALE DRAIN & FLOW DIRECTION
- SW EXISTING ROADSIDE SWALE

Ex. Culverts
Ex. WW septic Tank approx. location
SEPTIC TANK
LOT 1 3778m²
LOT 2 6951m²
Taiwhatiwhati 1E
Taiwhatiwhati 1F
Ex. overland flow path
HA01
HA02
HA03
36.69
1.76
1.82
2.30
WASTE WATER SOAKAGE
ROW A.
Martin Road
Waihuka Road
Lot 1 DP 343551
Lot 2 DP 343551
Lot 3 DP 343551
Lot 3 DP 138969
Conceptual Accessway
Vehicle Crossing-Rural TYPE 1A -FNDC Eng. Standards Sheet 21(2021)
Ex. SW Culvert
Sewage Manhole
drain (HDPE)
40.0
35.0
30.0
25.0
20.0
17.0

GENERAL NOTES

1. DRAWING REPRODUCED FROM THOMSON SURVEY PROPOSED SCHEME PLAN REF. 10863, DATED DECEMBER 2025.
3. HORIZ. CO ORDINATE SYSTEM = MT EDEN 2000.
4. VERTICAL DATUM = NZVD.
5. MAJOR INTERVALS 5.0 m.
6. MINOR INTERVALS 1.0 m.
7. FOR INDICATION ONLY, NOT FOR CONSTRUCTION.

CONCEPT WASTEWATER DESIGN

CONCEPT DEVELOPMENT	5 BEDROOM
CONCEPT NO. OF OCCUPANTS	8 PERSONS
DAILY WASTEWATER GEN.	160 LITRES/PERSON/ DAY
TOTAL WASTEWATER GEN.	1,280 LITRES/ DAY
SOIL CATEGORY (TP58)	CATEGORY 6
SOIL CATEGORY (NZS1547)	CATEGORY 5
SOIL LOADING RATE	3.0 mm/ DAY
TREATMENT SYSTEM	NO - SUBJECT TO BUILDING CONSENT DESIGN
PRIMARY DISPOSAL AREA	427 m²
RESERVE DISPOSAL AREA	214 m² (50 %)

Meters
16 0 16 32
1:750

Revision	Issue	Date
A	FOR CONSENT	29/01/2026

geologix consulting engineers
AUCKLAND | NORTHLAND

Project Name and Address
C0735N
MARTIN ROAD & WAIHUKA ROAD
OMAPARE
PROPOSED SUBDIVISON OF LOT3 DP 138969

Project	Drawn By
C0735N	FS

Client
KIRSTY ATKINSON

Sheet Title
ENGINEERING LAYOUT

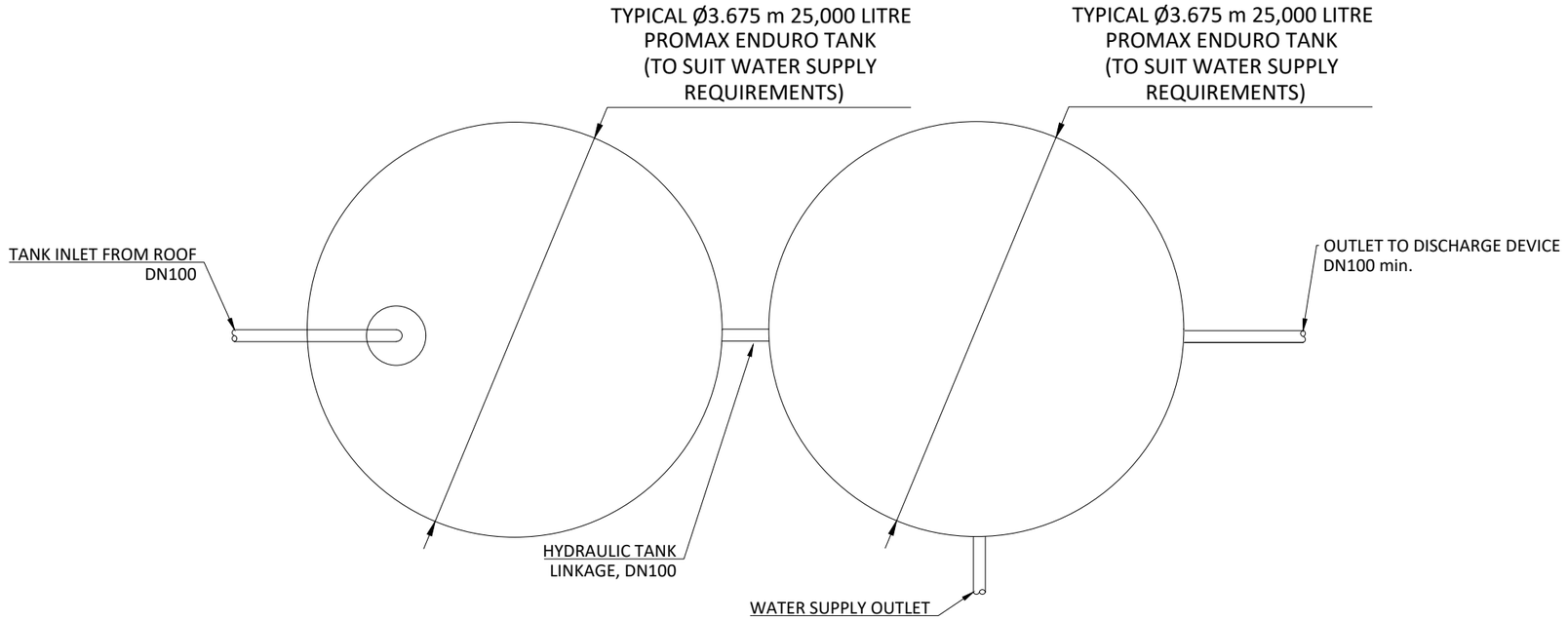
Sheet
100

PLOTTED: 09/04/2022

FILE PATH: N:\Projects\C0700-C0799\C0735N - Cnr 19 Martin Road & Waihuka Road, Omapare\07 - Technical & Drawings\Drawings\C0735N-S-100- 400-FS 01.dwgC0735N-S-100- 400-FS 01.dwg

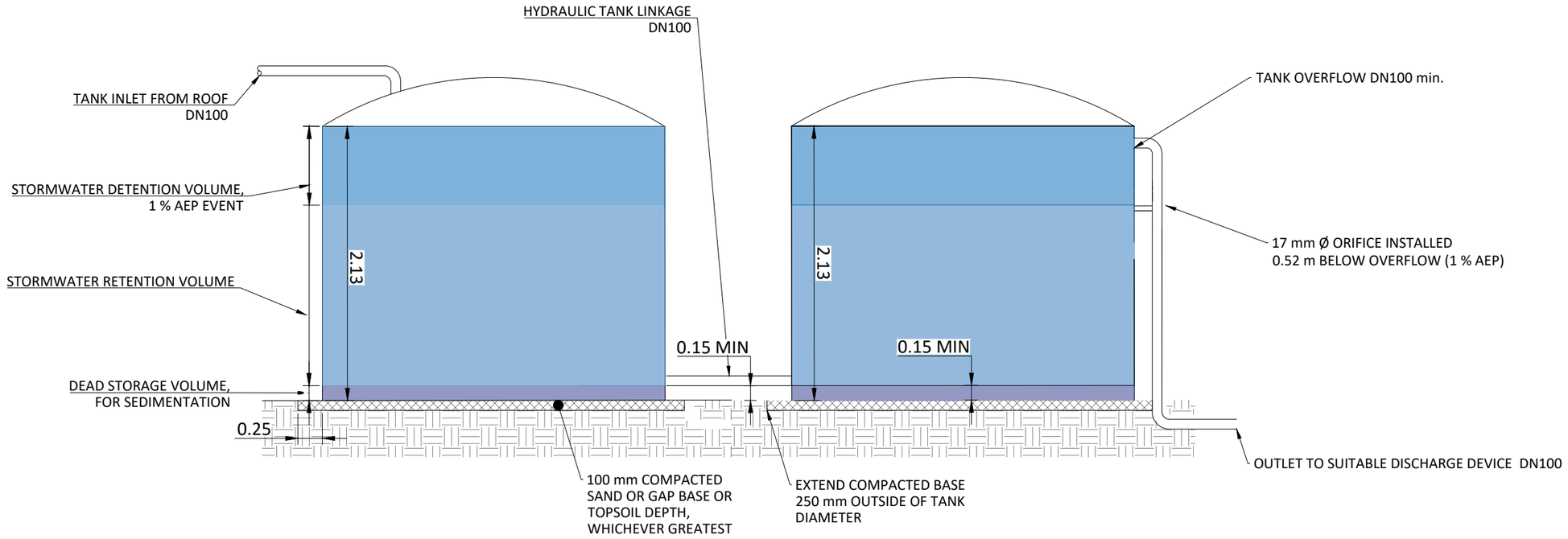
PROPOSED TANK PLAN VIEW

1:50, A3

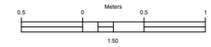


PROPOSED TANK SIDE VIEW

1:50, A3



GENERAL NOTES



Revision	Issue	Date
A	FOR CONSENT	29/01/2026

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AUCKLAND | NORTHLAND

Project Name and Address

C0735N
MARTIN ROAD & WAIHUKA ROAD
OMAPARE
PROPOSED SUBDIVISON OF LOT3 DP 138969

Project	Drawn By
C0735N	FS

Client

KIRSTY ATKINSON

Sheet Title

STORMWATER TANK DETAILS

Sheet

400

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APPENDIX B

Site Photographs

Figure 2: Subdivision (Lot 2 in foreground and Lot 1 in background)

Figure 3:Lot 1-existing vehicle crossing looking east on Martin Road

Figure 4:Lot 1-existing vehicle crossing looking west on Martin Road

Figure 5:Lot 1-Existing sewer chamber with wastewater field in background (beyond fence cloth)

Figure 6: Lot 1-Typical wastewater field dripper chambers

Figure 7:Lot 1-Existing Roof water tank

Figure 8: Lot 2- proposed site access from Waihuka Road

Figure 9: Lot 2 looking east on Waihuka Road

Figure 10: Lot 2 looking west on Waihuka Road

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APPENDIX C

Engineering Borehole Records

INVESTIGATION LOG

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Hole No:	HA01
Job No:	C0735N

Client: Kirsty Atkinson
Project: 19 Martin Road & Waihuka Road, Omapere
Date: 07-01-2026
Contractor: Geologix

Site Address: 19 Martin Road & Waihuka Road, Omapere
Co-Ordinates:
Method: HA + DCP
Logged By: CA
Vane No: 3467

DEPTH (M)	MATERIAL DESCRIPTION (SEE CLASSIFICATION AND SYMBOLOGY SHEET FOR DETAILS)	LEGEND	SAMPLE	VANE SHEAR STRENGTH (KPA) 50 100 150	PEAK	RESIDUAL	SCALA PENETROMETER (Blows/100mm) 3 6 9 12 15 18 21 24 27	WATER
0	SILT, with trace rootlets; brown. Very stiff; moist; friable, [TOPSOIL].							
0.2 m	Clayey SILT; brown mottled light brown. Very stiff; moist; low plasticity, [COLLUVIUM].			185	185	34		
				131	131	56		
				120	120	56		
1 m	Silty CLAY; light brown mottled light grey. Very stiff; moist to wet; high plasticity, [COLLUVIUM].			128	128	86		
				143	143	113		
1.7 m	CLAY; light brown. Very stiff; wet; high plasticity, [COLLUVIUM].			160	160	113		
				160	160	113		
2.3 m	Silty CLAY, with trace gravel; light brown mottled light grey. Very stiff; wet; high plasticity. Gravel is fine, sub-rounded, [COLLUVIUM].			160	160	88		
				160	160	88		
				177	177	91		
3.2 m	Terminated at 3.2 m							

4 5 6 8 9 9 10 13 15 20

REMARKS:

1. Hand Auger terminated at 3.20m bgl due to hard strata.
2. Continue with DCP from 3.20m bgl to 4.20m bgl.
3. Groundwater not encountered during drilling.

Shear Vane (kPa)		Scala Blows /100m	
< 12	Very Soft	0 - 2	Very Loose
12 - 25	Soft	1 - 3	Loose
25 - 50	Firm	3 - 7	Med Dense
50 - 100	Stiff	7 - 17	Dense
100 - 200	Very Stiff	> 17	Very Dense
200 - 500	Hard		

DURING DRILLING (M) ▽ SHORT TERM AFTER (M) ▼ LONG TERM AFTER (M) ▼

INVESTIGATION LOG

geologix consulting engineers

Hole No:	HA02
Job No:	C0735N

Client: Kirsty Atkinson
Project: 19 Martin Road & Waihuka Road, Omapere
Date: 13-01-2026
Contractor: Geologix

Site Address: 19 Martin Road & Waihuka Road, Omapere
Co-Ordinates:
Method: HA + DCP
Logged By: CA
Vane No: 3467

DEPTH (M)	MATERIAL DESCRIPTION (SEE CLASSIFICATION AND SYMBOLOGY SHEET FOR DETAILS)	LEGEND	SAMPLE	VANE SHEAR STRENGTH (KPA) 50 100 150	PEAK	RESIDUAL	SCALA PENETROMETER (Blows/100mm) 3 6 9 12 15 18 21 24 27	WATER
0	SILT, with trace rootlets; dark brown. Very stiff; moist; friable, [TOPSOIL].							
0.2 m	SILT, with trace gravel; light brown mottled dark brown. Very stiff; moist; low plasticity. Gravel is fine, sub-angular, [COLLUVIUM].			101	101	40	2	
0.6 m	Silty CLAY; light brown mottled light grey. Very stiff; wet; high plasticity, [COLLUVIUM].			143	143	83	4	
1				123	123	66	6	
1.6 m	Clayey SILT; light reddish brown mottled light grey. Very stiff; moist to wet; low plasticity, [WAITIITI FORMATION].			145	145	70	7	
1.8 m	Terminated at 1.8 m			200	200		9	
2				200	200		11	
3							12	
4							14	
5							15	
							15	

REMARKS:

1. Hand Auger terminated at 1.80m bgl due to hard strata.
2. Continue with DCP from 1.80m bgl to 2.80m bgl.
3. Groundwater not encountered during drilling.

DURING DRILLING (M) ▽ SHORT TERM AFTER (M) ▼ LONG TERM AFTER (M)

Shear Vane (kPa)		Scala Blows /100m	
< 12	Very Soft	0 - 2	Very Loose
12 - 25	Soft	1 - 3	Loose
25 - 50	Firm	3 - 7	Med Dense
50 - 100	Stiff	7 - 17	Dense
100 - 200	Very Stiff	> 17	Very Dense
200 - 500	Hard		

INVESTIGATION LOG

Hole No: **HA03**
Job No: **C0735N**

Client: Kirsty Atkinson
Project: 19 Martin Road & Waihuka Road, Omapere
Date: 13-01-2026
Contractor: Geologix

Site Address: 19 Martin Road & Waihuka Road, Omapere
Co-Ordinates:
Method: HA + DCP
Logged By: CA
Vane No: 3467

DEPTH (M)	MATERIAL DESCRIPTION (SEE CLASSIFICATION AND SYMBOLOGY SHEET FOR DETAILS)	LEGEND	SAMPLE	VANE SHEAR STRENGTH (KPA) 50 100 150	PEAK	RESIDUAL	SCALA PENETROMETER (Blows/100mm) 3 6 9 12 15 18 21 24 27	WATER
0	SILT, with trace rootlets; dark brown. Very stiff; moist; friable, [TOPSOIL].							
0.2 m	SILT, with trace gravel; dark brown mottled light brown. Very stiff; moist; low plasticity. Gravel is fine to medium, sub-angular, [COLLUVIUM].			174	174	40		
0.6 m	Clayey SILT, with trace gravel; light brown mottled light grey. Very stiff; wet; high plasticity. Gravel is fine to medium, sub-angular, [COLLUVIUM].			157	157	57		
1				160	160	54		
1.3 m	Terminated at 1.3 m			200	UTP		25	
2								
3								
4								
5								

REMARKS:

1. Hand Auger terminated at 1.30m bgl due to hard strata.
2. Continue with DCP from 1.30m bgl to 1.30m bgl.
3. Groundwater not encountered during drilling.

DURING DRILLING (M) ▽ SHORT TERM AFTER (M) ▼ LONG TERM AFTER (M)

Shear Vane (kPa)		Scala Blows /100m	
< 12	Very Soft	0 - 2	Very Loose
12 - 25	Soft	1 - 3	Loose
25 - 50	Firm	3 - 7	Med Dense
50 - 100	Stiff	7 - 17	Dense
100 - 200	Very Stiff	> 17	Very Dense
200 - 500	Hard		

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APPENDIX D

Wastewater Assessment of Effects

Table 6: Wastewater Assessment of Environmental Effects

Item	NRC Separation Requirement[2]	FNDC Separation Requirement	Site Assessment[3]
Individual System Effects			
Flood plains	Above 5 % AEP	NR	Complies. Disposal field well above mapped flood hazard.
Stormwater flowpath[4]	5 m	NR	Complies, see annotations on Drawing No. 100.
Surface water feature[5]	15 m	15 – 30 m	Complies.
Coastal Marine Area	15 m	30 m	Complies.
Existing water supply bore.	20 m	NR	Complies.
Property boundary	1.5 m	1.5 m	Complies. Including proposed subdivision boundaries.
Winter groundwater table	0.6 m	0.6 m	Complies.
Topography			Complies, <10 °.
Cut off drain required?			No.
Discharge Consent Required?			No.
	TP58	**NZS1547**	
Cumulative Effects			
Biological Oxygen Demand	≤20 g/m^3		Complies – secondary treatment.
Total Suspended Solids	≤30 g/m^3		Complies – secondary treatment.
Total Nitrogen	10 – 30 g/m^3	15 – 75 g/m^3	Complies – secondary treatment.
Phosphorous	NR	4 – 10 g/m^3	Complies – secondary treatment.
Ammonia	NR	Negligible	Complies – secondary treatment.
Nitrites/ Nitrates	NR	15 – 45 g/m^3	Complies – secondary treatment.
Conclusion: Effects are less than minor on the environment.			

1. *AEE based on proposed secondary treated effluent.*
2. *Northland Regional Plan Table 9.*
3. *Based on the recommendations of this report and Drawing No. 100.*
4. *Including any formed road with kerb and channel, and water-table drain that is down-slope of the disposal area.*
5. *River, lake, stream, pond, dam, or natural wetland.*

AEP Annual Exceedance Probability.
NR No Requirement.

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APPENDIX E

Stormwater Calculations

Project Ref:	C0735N		**STORMWATER ATTENUATION TANK DESIGN**	geologix consulting engineers
Project Address:	19 Martin Rd & Waihuka Rd Omapare			
Design Case:	Lot 2-CONCEPT FUTURE DEVELOPMENT		**50 % AEP STORM EVENT, 80 % OF PRE DEVELOPMENT**	
Date:	13 January 2026	REV 1		

ATTENUATION DESIGN PROVIDED IN ACCORDANCE WITH NEW ZEALAND BUILDING CODE E1 FOR THE RATIONALE METHOD ACCOUNTING FOR THE EFFECTS OF CLIMATE CHANGE (20% FACTOR AS PER 2023 FNDC ENGINEERING STANDARDS).
PRE-DEVELOPMENT RUNOFF IS FACTORED BY 80% TO SUIT FNDC STANDARDS
RUNOFF COEFFICIENTS DETERMINED FROM FNDC ENGINEERING STANDARDS 2023 TABLE 4-3.

PRE DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
IMPERVIOUS A			
IMPERVIOUS B	0	0	
IMPERVIOUS C	0	0	
EX. PERVIOUS	556	0.67	PASTURE
TOTAL	**556**	TYPE C	

POST DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
TO TANK	150	0.96	ROOF
OFFSET	290	0.83	DRIVEWAY - METAL
PERVIOUS	0	0.67	pasture
NOT TO TANK	116	0.83	DRIVEWAY - METAL
TOTAL	**556**	TYPE C	

RAINFALL INTENSITY, 50% AEP, 10MIN DURATION

50 % AEP RAINFALL INTENSITY, 10 MIN, I, mm/hr	56.4	mm/hr
CLIMATE CHANGE FACTOR, 2.1 DEG, 10 MIN*	20	%
50 % AEP RAINFALL INTENSITY, 10 MIN WITH CC	67.68	mm/hr

* CLIMATE CHANGE FACTOR OF 20% APPLIED IN ACCORDANCE WITH FNDC ENGINEERING STANDARDS 4.3.9.1. NIWA HISTORIC RAINFALL INTENSITY DATA, 10MIN, IS MULTIPLIED BY CLIMATE CHANGE FACTOR.

PRE AND POST-DEVELOPMENT RUNOFF, 50%AEP, VARIOUS DURATIONS

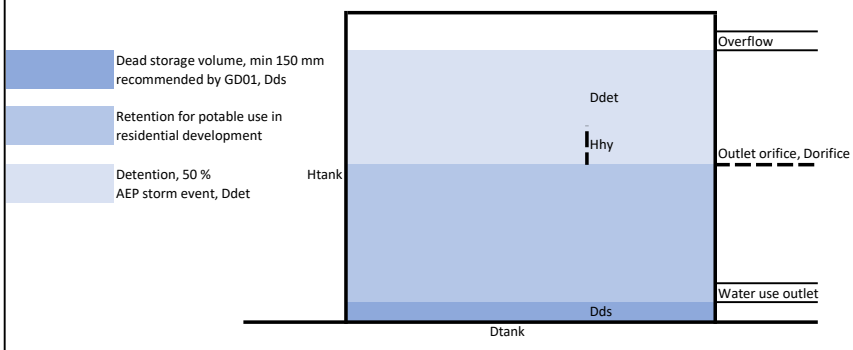
DURATION, min	INTENSITY, mm/hr	CC FACTOR	INTENSITY WITH CC, mm/hr	POST DEV RUNOFF, Qpost, l/s	PRE DEV RUNOFF, Qpre, l/s	80% of PRE DEV RUNOFF, Qpre(80%), l/s	COMMENTS
10	56.40	1.2	67.68	9.04	5.84	4.67	*Critical duration (time of concentration) for the catchments is 10min*
20	38.70	1.2	46.44	6.20	4.00	3.20	
30	31.00	1.2	37.20	4.97	3.21	2.57	
60	21.10	1.2	25.32	3.38	2.18	1.75	
120	14.20	1.2	17.04	2.28	1.47	1.18	*Pre-dev calculated on Intensity without CC factor*
360	7.40	1.2	8.88	1.19	0.77	0.61	
720	4.80	1.2	5.76	0.77	0.50	0.40	
1440	3.05	1.2	3.66	0.49	0.32	0.25	
2880	1.89	1.2	2.27	0.30	0.20	0.16	
4320	1.41	1.2	1.69	0.23	0.15	0.12	

ATTENUATION ANALYSIS, VARIOUS DURATIONS

DURATION, min	OFFSET FLOW, Qoff, l/s	TANK INFLOW , Qin, l/s	ALLOWABLE TANK OUTFLOW, Qpre(80%) - Qoff, l/s	SELECTED TANK OUTFLOW, Qout, l/s	DIFFERENCE (Qin - Qout), l/s	Required Storage, litres	
10	4.53	2.71	0.14	0.14	2.56	1538	*Selected Tank Outflow is selected for critical duration (time of concentration).*
20	3.11	1.86	0.10	0.14	1.71	2057	
30	2.49	1.49	0.08	0.14	1.34	2420	
60	1.69	1.01	0.05	0.14	0.87	3129	
120	1.14	0.68	0.04	0.14	0.54	3872	*select largest required storage , regardless of duration, to avoid overflow for event of any duration*
360	0.59	0.36	0.02	0.14	0.21	4567	
720	0.39	0.23	0.01	0.14	0.09	3743	
1440	0.24	0.15	0.01	0.14	0.00	228	
2880	0.15	0.09	0.00	0.14	No Att. Req.	0	
4320	0.11	0.07	0.00	0.14	No Att. Req.	0	

ATTENUATION TANK DESIGN OUTPUT

Concept sizing for 25,000 litre tank



SPECIFICATION

TOTAL STORAGE REQUIRED	4.567	m3	Select largest storage as per analysis
TANK HEIGHT, Htank	2.345	m	Concept sizing for 25,000 litre tank
TANK DIAMETER, Dtank	3.675	m	No. of Tanks 2
TANK AREA, Atank	21.21	m2	Area of ONE tank
TANK MAX STORAGE VOLUME, Vtank	49748	litres	
REQUIRED STORAGE HEIGHT, Ddet	0.22	m	Below overflow
DEAD STORAGE VOLUME, Dds	0.15	m	GD01 recommended minimum
TOTAL WATER DEPTH REQUIRED	0.37	m	
SELECTED TANK OUTFLOW, Qout, l/s	0.00014	m3/s	Selected tank outflow
AVERAGE HYDRAULIC HEAD, Hhy	0.11	m	
AREA OF ORIFICE, Aorifice	1.60E-04	m2	
ORIFICE DIAMETER, Dorifice	14	mm	
VELOCITY AT ORIFICE	2.06	m/s	At max. head level

Project Ref:	C0735N		**STORMWATER ATTENUATION TANK DESIGN**	geologix consulting engineers
Project Address:	19 Martin Rd & Waihuka Rd Omapare			
Design Case:	Lot 2-CONCEPT FUTURE DEVELOPMENT		**20 % AEP STORM EVENT, 80 % OF PRE DEVELOPMENT**	
Date:	13 January 2026	REV 1		

ATTENUATION DESIGN PROVIDED IN ACCORDANCE WITH NEW ZEALAND BUILDING CODE E1 FOR THE RATIONALE METHOD ACCOUNTING FOR THE EFFECTS OF CLIMATE CHANGE (20% FACTOR AS PER 2023 FNDC ENGINEERING STANDARDS).
PRE-DEVELOPMENT RUNOFF IS FACTORED BY 80% TO SUIT FNDC STANDARDS
RUNOFF COEFFICIENTS DETERMINED FROM FNDC ENGINEERING STANDARDS 2023 TABLE 4-3.

PRE DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
IMPERVIOUS A	0	0	
IMPERVIOUS B	0	0	
IMPERVIOUS C	0	0	
EX. PERVIOUS	556	0.67	PASTURE
TOTAL	**556**	TYPE C	

POST DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
TO TANK	150	0.96	ROOF
OFFSET	290	0.83	DRIVEWAY - METAL
PERVIOUS	0	0.67	pasture
NOT TO TANK	116	0.83	DRIVEWAY - METAL
0	0	0	
TOTAL	**556**	TYPE C	

RAINFALL INTENSITY, 20% AEP, 10MIN DURATION

20 % AEP RAINFALL INTENSITY, 10 MIN, I, mm/hr	72.7	mm/hr
CLIMATE CHANGE FACTOR, 2.1 DEG, 10 MIN*	20	%
20 % AEP RAINFALL INTENSITY, 10 MIN WITH CC	87.2	mm/hr

* CLIMATE CHANGE FACTOR OF 20% APPLIED IN ACCORDANCE WITH FNDC ENGINEERING STANDARDS 4.3.9.1. NIWA HISTORIC RAINFALL INTENSITY DATA, 10MIN, IS MULTIPLIED BY CLIMATE CHANGE FACTOR.

PRE AND POST-DEVELOPMENT RUNOFF, 20%AEP, VARIOUS DURATIONS

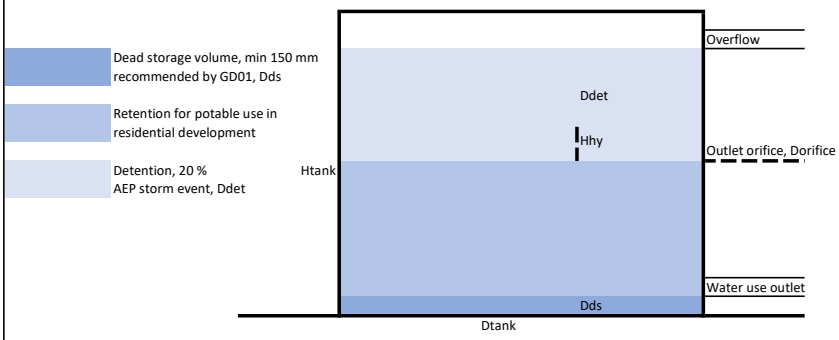
DURATION, min	INTENSITY, mm/hr	CC FACTOR	INTENSITY WITH CC, mm/hr	POST DEV RUNOFF, Qpost, l/s	PRE DEV RUNOFF, Qpre, l/s	80% of PRE DEV RUNOFF, Qpre(80%), l/s	COMMENTS
10	72.70	1.2	87.24	11.66	7.52	6.02	*Critical duration (time of concentration) for the catchments is 10min*
20	50.00	1.2	60.00	8.02	5.17	4.14	
30	40.10	1.2	48.12	6.43	4.15	3.32	
60	27.30	1.2	32.76	4.38	2.82	2.26	
120	18.50	1.2	22.20	2.97	1.91	1.53	*Pre-dev calculated on Intensity without CC factor*
360	9.65	1.2	11.58	1.55	1.00	0.80	
720	6.27	1.2	7.52	1.01	0.65	0.52	
1440	3.99	1.2	4.79	0.64	0.41	0.33	
2880	2.48	1.2	2.98	0.40	0.26	0.21	
4320	1.86	1.2	2.23	0.30	0.19	0.15	

ATTENUATION ANALYSIS, VARIOUS DURATIONS

DURATION, min	OFFSET FLOW, Qoff, l/s	TANK INFLOW , Qin, l/s	ALLOWABLE TANK OUTFLOW, Qpre(80%) - Qoff, l/s	SELECTED TANK OUTFLOW, Qout, l/s	DIFFERENCE (Qin - Qout), l/s	Required Storage, litres	
10	5.83	3.49	0.19	0.19	3.30	1983	*Selected Tank Outflow is selected for critical duration (time of concentration).*
20	4.01	2.40	1.16	0.19	2.21	2658	
30	3.22	1.92	0.93	0.19	1.74	3131	
60	2.19	1.31	0.63	0.19	1.13	4050	
120	1.48	0.89	0.43	0.19	0.70	5059	*select largest required storage , regardless of duration, to avoid overflow for event of any duration*
360	0.77	0.46	0.22	0.19	0.28	6003	
720	0.50	0.30	0.15	0.19	0.12	4996	
1440	0.32	0.19	0.09	0.19	0.01	537	
2880	0.20	0.12	0.06	0.19	No Att. Req.	0	
4320	0.15	0.09	0.04	0.19	No Att. Req.	0	

ATTENUATION TANK DESIGN OUTPUT

Concept sizing for 25,000 litre tank



SPECIFICATION

TOTAL STORAGE REQUIRED	6.003	m3	Select largest storage as per analysis
TANK HEIGHT, Htank	2.345	m	Concept sizing for 25,000 litre tank
TANK DIAMETER, Dtank	3.675	m	No. of Tanks 2
TANK AREA, Atank	21.21	m2	Area of ONE tank
TANK MAX STORAGE VOLUME, Vtank	49748	litres	
REQUIRED STORAGE HEIGHT, Ddet	0.28	m	Below overflow
DEAD STORAGE VOLUME, Dds	0.15	m	GD01 recommended minimum
TOTAL WATER DEPTH REQUIRED	0.43	m	
SELECTED TANK OUTFLOW, Qout, l/s	0.00019	m3/s	Selected tank outflow
AVERAGE HYDRAULIC HEAD, Hhy	0.14	m	
AREA OF ORIFICE, Aorifice	1.79E-04	m2	
ORIFICE DIAMETER, Dorifice	15	mm	
VELOCITY AT ORIFICE	2.36	m/s	At max. head level

Project Ref:	C0735N		**STORMWATER ATTENUATION TANK DESIGN**	geologix consulting engineers
Project Address:	19 Martin Rd & Waihuka Rd Omapare			
Design Case:	Lot 2-CONCEPT FUTURE DEVELOPMENT		**10 % AEP STORM EVENT, TO PRE-DEVELOPMENT FLOW**	
Date:	13 January 2026	REV 1		

ATTENUATION DESIGN PROVIDED IN ACCORDANCE WITH NEW ZEALAND BUILDING CODE E1 FOR THE RATIONALE METHOD ACCOUNTING FOR THE EFFECTS OF CLIMATE CHANGE (20% FACTOR AS PER 2023 FNDC ENGINEERING STANDARDS). THE 10% AEP SCENARIO IS PROVIDED TO SATISFY FNDC DISTRICT PLAN RULE 13.7.3.4 (FOR CONTROLLED ACTIVITY). PRE-DEVELOPMENT RUNOFF REMAINS UNFACTORED IN THIS SCENARIO.
RUNOFF COEFFICIENTS DETERMINED FROM FNDC ENGINEERING STANDARDS 2023 TABLE 4-3.

PRE DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
IMPERVIOUS A	0	0	
IMPERVIOUS B	0	0	
IMPERVIOUS C	0	0	
EX. PERVIOUS	556	0.67	PASTURE
0	0	0	
TOTAL	**556**	TYPE C	

POST DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
TO TANK	150	0.96	ROOF
OFFSET	290	0.83	DRIVEWAY - METAL
PERVIOUS	0	0.67	pasture
NOT TO TANK	116	0.83	DRIVEWAY - METAL
0	0	0	
TOTAL	**556**	TYPE C	

RAINFALL INTENSITY, 10% AEP, 10MIN DURATION

10 % AEP RAINFALL INTENSITY, 10 MIN, I, mm/hr	84.7	mm/hr
CLIMATE CHANGE FACTOR, 2.1 DEG, 10 MIN*	20	%
10 % AEP RAINFALL INTENSITY, 10 MIN WITH CC	101.6	mm/hr

* CLIMATE CHANGE FACTOR OF 20% APPLIED IN ACCORDANCE WITH FNDC ENGINEERING STANDARDS 4.3.9.1. NIWA HISTORIC RAINFALL INTENSITY DATA, 10MIN, IS MULTIPLIED BY CLIMATE CHANGE FACTOR.

PRE AND POST-DEVELOPMENT RUNOFF, 10%AEP, VARIOUS DURATIONS

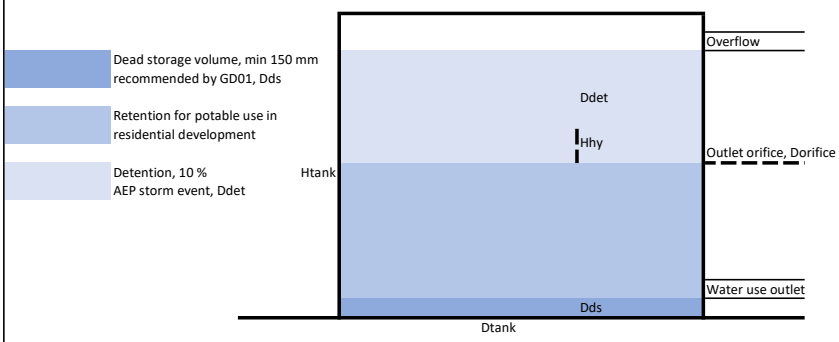
DURATION, min	INTENSITY, mm/hr	CC FACTOR	INTENSITY WITH CC, mm/hr	POST DEV RUNOFF, Qpost, l/s	PRE DEV RUNOFF, Qpre, l/s		COMMENTS
10	84.70	1.2	101.64	13.58	8.76		*Critical duration (time of concentration) for the catchments is 10min*
20	58.30	1.2	69.96	9.35	6.03		
30	46.80	1.2	56.16	7.50	4.84		
60	32.00	1.2	38.40	5.13	3.31		
120	21.60	1.2	25.92	3.46	2.24		*Pre-dev calculated on Intensity without CC factor*
360	11.30	1.2	13.56	1.81	1.17		
720	7.37	1.2	8.84	1.18	0.76		
1440	4.70	1.2	5.64	0.75	0.49		
2880	2.93	1.2	3.52	0.47	0.30		
4320	2.19	1.2	2.63	0.35	0.23		

ATTENUATION ANALYSIS, VARIOUS DURATIONS

DURATION, min	OFFSET FLOW, Qoff, l/s	TANK INFLOW , Qin, l/s	ALLOWABLE TANK OUTFLOW, Qpre - Qoff, l/s	SELECTED TANK OUTFLOW, Qout, l/s	DIFFERENCE (Qin - Qout), l/s	Required Storage, litres	
10	6.80	4.07	1.97	1.97	2.10	1258	*Selected Tank Outflow is selected for critical duration (time of concentration).*
20	4.68	2.80	1.36	1.97	0.83	996	
30	3.75	2.25	1.09	1.97	0.28	500	
60	2.57	1.54	0.74	1.97	No Att. Req.	0	
120	1.73	1.04	0.50	1.97	No Att. Req.	0	*select largest required storage , regardless of duration, to avoid overflow for event of any duration*
360	0.91	0.54	0.26	1.97	No Att. Req.	0	
720	0.59	0.35	0.17	1.97	No Att. Req.	0	
1440	0.38	0.23	0.11	1.97	No Att. Req.	0	
2880	0.24	0.14	0.07	1.97	No Att. Req.	0	
4320	0.18	0.11	0.05	1.97	No Att. Req.	0	

ATTENUATION TANK DESIGN OUTPUT

Concept sizing for 25,000 litre tank



SPECIFICATION

TOTAL STORAGE REQUIRED	1.258	m3	Select largest storage as per analysis
TANK HEIGHT, Htank	2.345	m	Concept sizing for 25,000 litre tank
TANK DIAMETER, Dtank	3.675	m	No. of Tanks 2
TANK AREA, Atank	21.21	m2	Area of ONE tank
TANK MAX STORAGE VOLUME, Vtank	49748	litres	
REQUIRED STORAGE HEIGHT, Ddet	0.06	m	Below overflow
DEAD STORAGE VOLUME, Dds	0.15	m	GD01 recommended minimum
TOTAL WATER DEPTH REQUIRED	0.21	m	
SELECTED TANK OUTFLOW, Qout, l/s	0.00197	m3/s	Selected tank outflow
AVERAGE HYDRAULIC HEAD, Hhy	0.03	m	
AREA OF ORIFICE, Aorifice	4.16E-03	m2	
ORIFICE DIAMETER, Dorifice	73	mm	
VELOCITY AT ORIFICE	1.08	m/s	At max. head level

Project Ref:	C0735N		**STORMWATER ATTENUATION TANK DESIGN**	geologix consulting engineers
Project Address:	19 Martin Rd & Waihuka Rd Omapare			
Design Case:	Lot 2-CONCEPT FUTURE DEVELOPMENT		**1 % AEP STORM EVENT, 80 % OF PRE DEVELOPMENT**	
Date:	13 January 2026	REV 1		

ATTENUATION DESIGN PROVIDED IN ACCORDANCE WITH NEW ZEALAND BUILDING CODE E1 FOR THE RATIONALE METHOD ACCOUNTING FOR THE EFFECTS OF CLIMATE CHANGE (20% FACTOR AS PER 2023 FNDC ENGINEERING STANDARDS).
PRE-DEVELOPMENT RUNOFF IS FACTORED BY 80% TO SUIT FNDC STANDARDS
RUNOFF COEFFICIENTS DETERMINED FROM FNDC ENGINEERING STANDARDS 2023 TABLE 4-3.

PRE DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
IMPERVIOUS A	0	0	
IMPERVIOUS B	0	0	
IMPERVIOUS C	0	0	
EX. PERVIOUS	556	0.67	PASTURE
0	0	0	
TOTAL	**556**	TYPE C	

POST DEVELOPMENT CATCHMENT PARAMETERS

ITEM	AREA, A, m2	COEFFICIENT, C	DESCRIPTION
TO TANK	150	0.96	ROOF
OFFSET	290	0.83	DRIVEWAY - METAL
PERVIOUS	0	0.67	pasture
NOT TO TANK	116	0.83	DRIVEWAY - METAL
0	0	0	
TOTAL	**556**	TYPE C	

RAINFALL INTENSITY, 1% AEP, 10MIN DURATION

1 % AEP RAINFALL INTENSITY, 10 MIN, I, mm/hr	126.0	mm/hr
CLIMATE CHANGE FACTOR, 2.1 DEG, 10 MIN*	20	%
1 % AEP RAINFALL INTENSITY, 10 MIN WITH CC	151.2	mm/hr

* CLIMATE CHANGE FACTOR OF 20% APPLIED IN ACCORDANCE WITH FNDC ENGINEERING STANDARDS 4.3.9.1. NIWA HISTORIC RAINFALL INTENSITY DATA, 10MIN, IS MULTIPLIED BY CLIMATE CHANGE FACTOR.

PRE AND POST-DEVELOPMENT RUNOFF, 1%AEP, VARIOUS DURATIONS

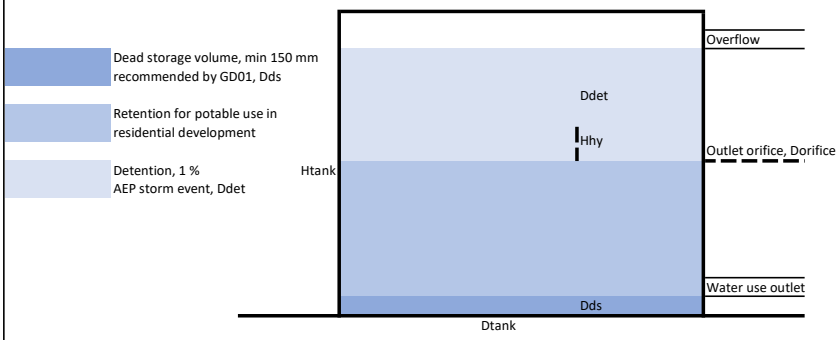
DURATION, min	INTENSITY, mm/hr	CC FACTOR	INTENSITY WITH CC, mm/hr	POST DEV RUNOFF, Qpost, l/s	PRE DEV RUNOFF, Qpre, l/s	80% of PRE DEV RUNOFF, Qpre(80%), l/s	COMMENTS
10	126.00	1.2	151.20	20.20	13.04	10.43	*Critical duration (time of concentration) for the catchments is 10min*
20	87.50	1.2	105.00	14.03	9.05	7.24	
30	70.40	1.2	84.48	11.29	7.28	5.83	
60	48.30	1.2	57.96	7.74	5.00	4.00	
120	32.80	1.2	39.36	5.26	3.39	2.72	*Pre-dev calculated on Intensity without CC factor*
360	17.30	1.2	20.76	2.77	1.79	1.43	
720	11.30	1.2	13.56	1.81	1.17	0.94	
1440	7.26	1.2	8.71	1.16	0.75	0.60	
2880	4.54	1.2	5.45	0.73	0.47	0.38	
4320	3.41	1.2	4.09	0.55	0.35	0.28	

ATTENUATION ANALYSIS, VARIOUS DURATIONS

DURATION, min	OFFSET FLOW, Qoff, l/s	TANK INFLOW , Qin, l/s	ALLOWABLE TANK OUTFLOW, Qpre(80%) - Qoff, l/s	SELECTED TANK OUTFLOW, Qout, l/s	DIFFERENCE (Qin - Qout), l/s	Required Storage, litres	
10	10.11	6.05	0.32	0.32	5.73	3436	*Selected Tank Outflow is selected for critical duration (time of concentration).*
20	7.02	4.20	0.22	0.32	3.88	4655	
30	5.65	3.38	0.18	0.32	3.06	5504	
60	3.88	2.32	0.12	0.32	2.00	7190	
120	2.63	1.57	0.08	0.32	1.25	9023	*select largest required storage , regardless of duration, to avoid overflow for event of any duration*
360	1.39	0.83	0.04	0.32	0.51	11000	
720	0.91	0.54	0.03	0.32	0.22	9558	
1440	0.58	0.35	0.02	0.32	0.03	2360	
2880	0.36	0.22	0.01	0.32	No Att. Req.	0	
4320	0.27	0.16	0.01	0.32	No Att. Req.	0	

ATTENUATION TANK DESIGN OUTPUT

Concept sizing for 25,000 litre tank



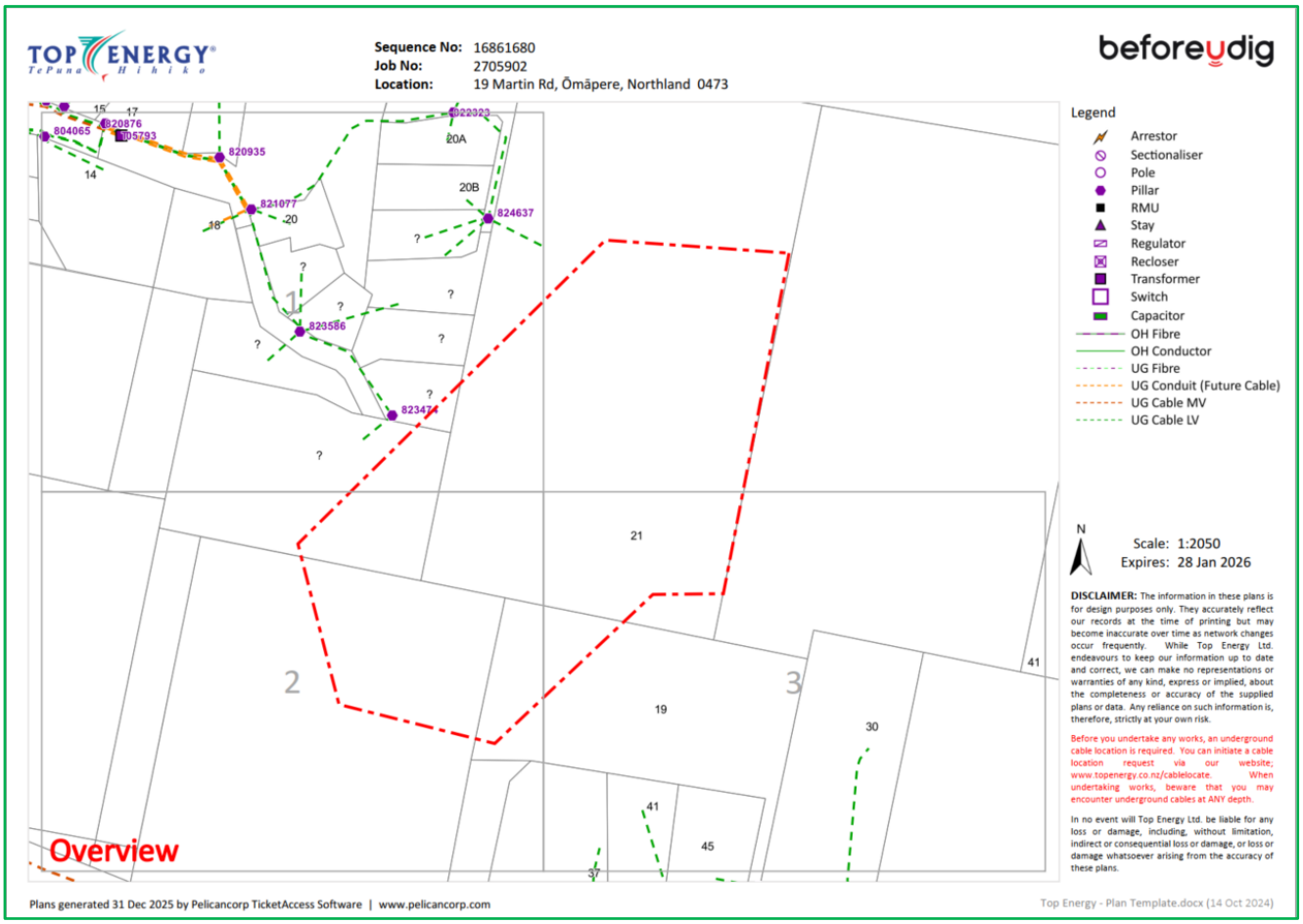
SPECIFICATION

TOTAL STORAGE REQUIRED	11.000	m3	Select largest storage as per analysis	
TANK HEIGHT, Htank	2.345	m	Concept sizing for 25,000 litre tank	
TANK DIAMETER, Dtank	3.675	m	No. of Tanks	2
TANK AREA, Atank	21.21	m2	Area of ONE tank	
TANK MAX STORAGE VOLUME, Vtank	49748	litres		
REQUIRED STORAGE HEIGHT, Ddet	0.52	m	Below overflow	
DEAD STORAGE VOLUME, Dds	0.15	m	GD01 recommended minimum	
TOTAL WATER DEPTH REQUIRED	0.67	m		
SELECTED TANK OUTFLOW, Qout, l/s	0.00032	m3/s	Selected tank outflow	
AVERAGE HYDRAULIC HEAD, Hhy	0.26	m		
AREA OF ORIFICE, Aorifice	2.30E-04	m2		
ORIFICE DIAMETER, Dorifice	17	mm		
VELOCITY AT ORIFICE	3.19	m/s	At max. head level	

geologix
consulting engineers

APPENDIX F

Beforeudig Plans


TOP ENERGY
Te Puna Hihiko
Sequence No: 16861680
Job No: 2705902
Location: 19 Martin Rd, Ōmāpere, Northland 0473
beforeudig
Legend
Arrestor
Sectionaliser
Pole
Pillar
RMU
Stay
Regulator
Recloser
Transformer
Switch
Capacitor
OH Fibre
OH Conductor
UG Fibre
UG Conduit (Future Cable)
UG Cable MV
UG Cable LV
804065
820876
805793
820935
821077
823586
823474
822323
824637
20A
20B
Scale: 1:2050
Expires: 28 Jan 2026
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