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 Schedule 4). Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges — both available on the Council's web page.

1. Pre-Lodgement Meeting

Have you met with a council Resource Consent representative to discuss this application prior to lodgement? ◯ **Yes** ✔ **No**

2. Type of Consent being applied for

(more than one circle can be ticked):

- ✔ **Land Use**
- ◯ **Fast Track Land Use***
- ◯ **Subdivision**
- ◯ **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?	Underlying zoning and relevant rules to the proposal were discussed with Council's Duty Planner backc on the 30th May 2025.

*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: Sean Broadhead & Alicia Shepherd

Email: [redacted]

Phone number:

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

6. Address for Correspondence

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

Name/s: Joseph Hale at Element Planning Ltd

Email: [redacted]

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: Sean Broadhead & Alicia Shepherd

Property Address/ Location: Lot 2 2791 SH 10 Mangonui

Postcode 0494

8. Application Site Details

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

Name/s:

Site Address/ Location: 2791 State Highway 10, Mangonui

Postcode 0494

Legal Description: Lot 2 DP 505117 **Val Number:**

Certificate of title: 761673

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 the owner for site 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.

This is a resource consent application for a proposed new dwelling and accompanying shed on the subject site. Resource Consent is required under the Operative District Plan for non-compliances with the underlying zones Visual Amenity and Earthworks rules, as well as under the Proposed Plans Earthworks rules for the zone. More detail on the consenting requirements can be found in the accompanying AEE.

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**

13. Draft Conditions:

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

If yes, do you agree to extend the processing timeframe pursuant to Section 37 of the Resource Management Act by 5 working days? ✔ **Yes** ◯ **No**

14. 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) Coastal Homes (2008) Ltd

Email: [redacted]

Phone number: [redacted]

Postal address: [redacted]
(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.

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) Glen Bradbury

Signature: [redacted]
(signature of bill payer)

Date 18-Jun-2025

MANDATORY

15. 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.

15. Important information continued...

Declaration

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

Name: **(please write in full)** Joseph Hale

Signature:

Date 17-Jun-2025

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

Checklist (please tick if information is provided)

- ☐ Payment (cheques payable to Far North District Council)
- ☑ A current Certificate of Title (Search Copy not more than 6 months old)
- ☐ 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.

Application for Resource Consent

Proposed new dwelling and accompanying shed at 2791 State Highway 10, Mangonui.

Prepared By

Joseph Hale
Director

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Status:	FINAL

Contents

1 Proposal 2

2 Site and Location 4

3 Record of Title 5

4 Consultation 7

5 District Plan Assessment 7

5.1 Far North District Council Operative District Plan 7

5.1.1 Zoning and Features 7

5.1.2 Rules 8

5.2 Far North District Council Proposed District Plan 12

5.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCL) 17

5.4 National Policy Statement for Highly Productive Land (NPSHPL) 17

5.5 Overall Resource Consent Activity Status Conclusion 17

6 Resource Management 17

6.1 Section 95 – Notification 17

6.2 Section 95B – Effects on owners and occupiers 22

7 Substantive Decision 26

7.1 Section 104B – Determination of Applications 26

7.2 Section 104 Assessment 27

7.2.1 Operative and Proposed District Plan Assessment Criteria 27

8 Conclusion 48

Appendix A - Record of Title and Interests

Appendix B - Development Plans

Appendix C – Site Suitability Report

Appendix D – Geotechnical Report

1 Proposal

1.1 The applicants seek resource consent for a proposed new residential dwelling and an accompanying future shed on a site at 2791 State Highway 10, Mangonui.

1.2 The proposed new dwelling is single storey in its design. It will have a linea weatherboard cladding exterior and a coloursteel maxx 0.40G Trimline Profile roof finish. All joinery is powder coated double glazing. The colours of the finished dwelling will comply with the requirements of the coastal zones Visual Amenity Rule requirements.

1.3 The house is to be located on an area of the site, which is within an already approved, designated building site. The area where the new dwelling will be located will be subject to earthworks which are required to be undertaken to create an appropriate building platform on the site, within this approved area.

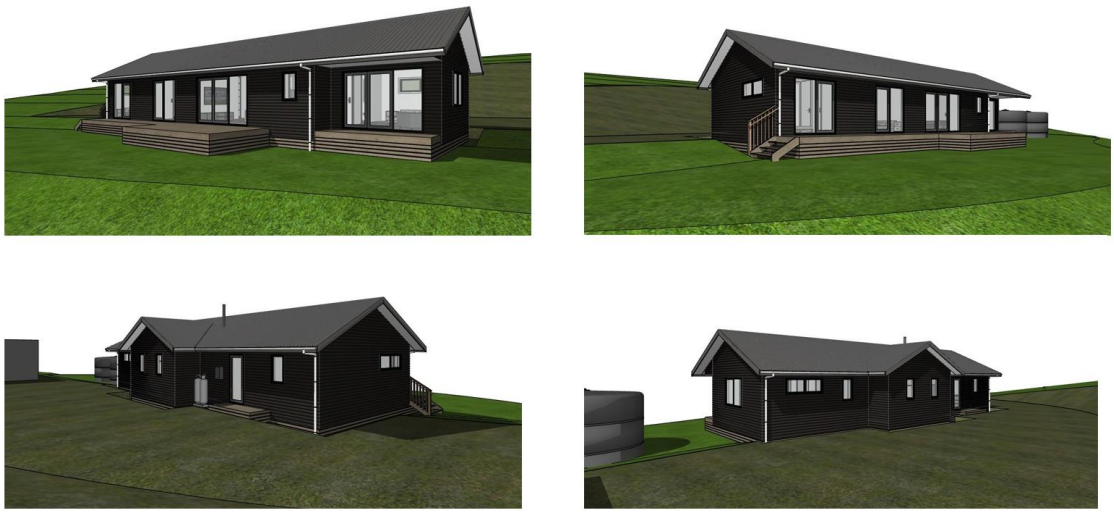


Figure 1: The above images show the architects rendition of the four elevations of the proposed dwelling on the subject site.

1.4 The proposed dwelling design comprises of the following spaces:

- Three bedrooms (the master bedroom as shown on the plans in Appendix B of this report has an en-suite);
- A bathroom;
- A Laundry;
- A combined Kitchen, Living and Dining area;
- A study
- A large cupboard area for storage; and
- A large outdoor decking area on the proposed western elevation of the new home(accessed from the main internal living area)

1.5 The proposed dwelling will have a floor area of 116.48m² and a roof area of 148.58m². The outdoor deck has an area of 25.51m².

1.6 The site has an existing access that the new dwelling will utilise. This was formed and created as part of the original subdivision which created this lot.

1.7 A garage is shown on the plans. Although there is no design for this at the time of applying, the garage the applicants want to install on site will have the floor area as shown on the plans in Appendix B. The inclusion of the garage in this application is to ensure its captured in the overall site coverage and earthworks calculations, as well as by the Visual Amenity rule for the zone, in order to avoid any potential future consents for this type of structure.

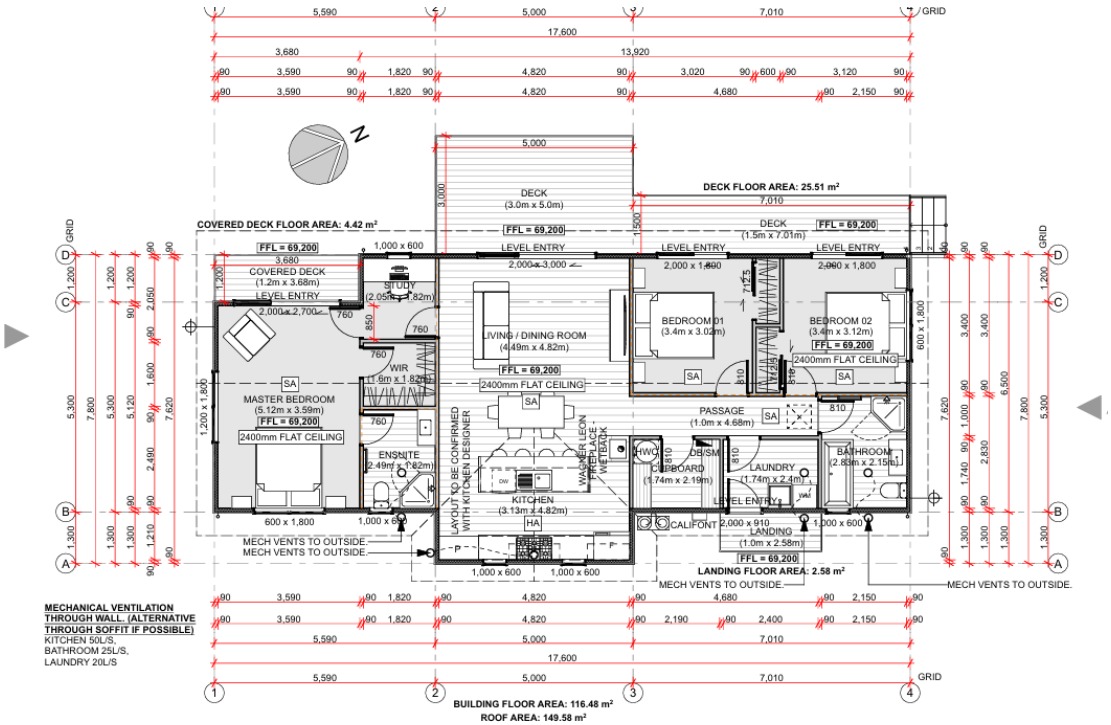


Figure 2: The above image shows the proposed floor layout for the application's new dwelling.

1.8 The following earthworks are required to prepare the site for the proposed dwelling in this consent application:

Earthworks	
Proposed Cut	1,500m³
Proposed Fill	1,500m³
Total Cut and Fill	3,000m³
Cut Surface Area	1,410m²
Fill Surface Area	750m²
Overall surface Area	2,160m²
Maximum Cut Height	2.3m
Maximum Fill Height	1.5m
Combined Cut and Fill Height	3.8m

1.9 As you can see from the table above, the required earthworks will infringe both the underlying zones volume and cut height permitted standards requirements. These are dealt with in more detail in Section 5 of this report.

1.10 Resource Consent is required for this proposed new residential dwelling and shed on the site under the Operative District Plans General Coastal Zone Visual Amenity rule (which requires a consent for buildings over a certain size), plus for exceedances of the earthwork's rules for the General Coastal Zone. Also, under the Proposed District Plan, it will require a resource consent for an earthworks non-compliance for the Rural Production Zone. These rule infringements are assessed and addressed in more detail in Section's 5 and 6 of this report.

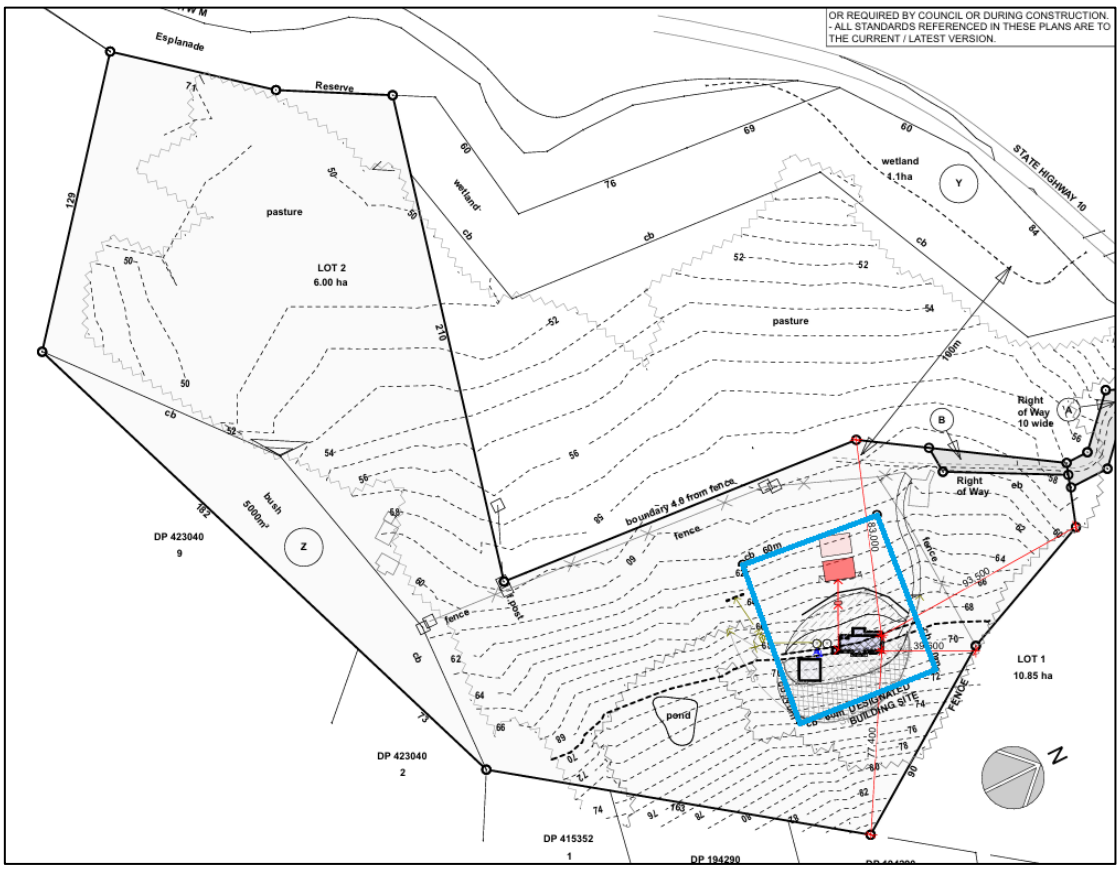


Figure 3: This image shows the location of the dwelling on the subject site, located within the already approved designated building site (outlined in blue).

2 Site and Location

2.1 The subject site is located at 2791 State Highway 10, Mangonui.

2.2 The site is irregular in shape and has an area of 5.9650ha.

2.3 The site gains access off State Highway 10 via a 10m wide right of way shared with another property located to the north west (a property also created as part of the same subdivision that created the subject site).

2.4 The site slopes downwards from east to west across the property.

Figure 4: This image shows the location of the site (in Pink) with regards to its surroundings at Stratford Drive.

2.5 At the time of writing, the site is predominantly vacant, with only two existing old sheds found at the sites western end that are historic remnants from the original parent property that was subdivided to create the subject site (and by "historic" it's meant they predate the creation of the subject site via subdivision, not that they are heritage listed or have any historic merit).

2.6 The southern boundary of the property is home to a 5000m2 covenanted bush area, which is shown on the site plan in Appendix B of this report. Most of the site is in grass however, although scattered areas of vegetation are found throughout the site as the aerial image in Figure 4 shows.

2.7 Lifestyle block properties and farmland are found in the site's immediate vicinity.

3 Record of Title

3.1 The site is legally described as Lot 2 DP 505117 held in Record of Title 761673. A copy of this Record of Title and its interests can be found in Appendix A of this report.

3.2 The following interests are listed on the Record of Title:

- *Subject to Section 168A Coal Mines Act 1925*
- *Subject to a right of way over part marked B on DP 603728 created by Easement Instrument 13175374.2- 29.1.2025 at 8:28 am*
- *Appurtenant hereto is a right of way, right to drain water, right to convey electricity and telecommunications created by Easement Instrument 13175374.2- 29.1.2025 at 8:28 am*

- *The easements created by Easement Instrument 13175374.2 are subject to Section 243 (a) Resource Management Act 1991*

- *13175374.3 Consent Notice pursuant to Section 221 Resource Management Act 1991- 29.1.2025 at 8:28 am*

3.3 Consent Notice 13175374.2 is of interest to the proposal. This consent notice requires the following (please note there are parts of this consent notice that are applicable to Lot 1 which was the other allotment that formed part of the subdivision that created the subject site – these parts are not included below as they are not applicable to the subject site or application's proposal):

Lots 1 and 2 DP 603728

e) The landowner shall not further increase the impermeable surfaces over the permitted threshold of the net site area, without implementing stormwater management and mitigation measures in accordance with Council's current Engineering Standards. The design shall accommodate for storm events up to and including the 1% annual exceedance probability plus an allowance for climate change and shall be prepared by a Chartered Professional Engineer or suitably qualified person, to the satisfaction of Council's Development Engineer or delegated representative.

f) Lots 1 and 2 contain Coastal Hazard 1 and 2 areas, wherein there is a potential risk to life, property and the environment due to climate change and natural coastal processes. Any dwellings to be constructed shall be located outside of Coastal and River Flood Zones.

Lot 2 DP 603728

g) In conjunction with the construction of any building requiring a wastewater disposal system within Lot 2, the owner shall obtain a Building Consent and install the wastewater treatment and effluent disposal system as detailed in the report prepared by Kerikeri Drainage and submitted with Resource Consent 2220861.

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

i) Area "W" is a designated building envelope, intended for any habitable building or building structure over 25m , but shall not include any buildings that existed prior to the date of issue of this consent.

j) The responsibility for providing both electricity and telecommunication services will remain that of the property owner.

k) The landowner of the lot shall be required at all times to comply with and implement all aspects of the final weed and pest management plan approved under condition 3(f) of RC 2220794-RMASUB.

3.4 In terms of the above, below is some commentary on how the proposal will adhere to the Consent Notices requirements:

- Consent Notice Condition (e) will be complied with as shown by the findings of the Site Suitability report found in Appendix C of this report.

- Condition (f) will be complied with as the proposed dwelling in this application will be built on the designated building platform on the site which is clear of coastal hazards.

- With regards to Condition (g), the proposed dwellings wastewater system will comply with the requirements of Kerikeri Drainage Report and submitted with Resource Consent 2220861.

- Condition (h) will be complied with. See accompanying reports in Appendix C and D for more details.

- Condition (i) will be complied with, as shown on the plans in Appendix B.

- Condition (j) will be complied with.

- Condition (k) will be adhered to, in line with the weed and pest management plan approved under the original subdivision consent that created the subject site.

3.5 Overall, there are no requirements to amend or change the Consent Notice conditions listed on the Record of Title.

4 Consultation

4.1 Consultation was undertaken with Council's Duty Planner back on the 30th May 2025 regarding the current status of the District Plans and the underlying zoning's rules requirements for this resource consent application.

4.2 No consultation has been undertaken with neighbouring property owners with regards to this applications proposal. A full assessment of sites in the immediate and wider vicinity to the site has been undertaken in Section 6 of this report.

5 District Plan Assessment

5.1 Far North District Council Operative District Plan

5.1.1 Zoning and Features

5.1.1.1 Under the Far North District Plan Operative Plan the subject site is zoned General Coastal. There are no policy overlays on the property.

5.1.1.2 The General Coastal Zone covers the largest area of all the zones in the coastal environment. This zone is generally rural with a coastal focus and natural character predominates.

5.1.1.3 The General Coastal Zone includes controls on development to preserve the natural character of the coastal environment and protect it from inappropriate subdivision and use. Due to the potential vulnerability of the natural environment, more is expected from developers of land in this zone in the way of preserving, and restoring the environment as part of development proposals.

5.1.1.4 The General Coastal Zone has controls aimed at preserving natural character and the restoration and enhancement of areas which may have been compromised by past land management practices. These controls reflect its coastal location and the inherent sensitivity of the coastal and adjoining marine environment and the vulnerability of these areas to change and development.

5.1.2 Rules

5.1.2.1 The table below shows the General Coastal Zone's rules and how they comply:

District Plan Rule	***Proposed Works and Rule Compliance***
10.6.5.1.1 VISUAL AMENITY *The following are permitted activities in the General Coastal Zone:* *(a) any new building(s) not for human habitation provided that the gross floor area of any new building permitted under this rule, does not exceed 50m² or for human habitation provided that the gross floor area does not exceed 25m2; and* *(b) the exterior is coloured within the BS5252 standard colour palette range with a reflectance value of 30% or less or are constructed of natural materials which fall within this range; or* *(c) any alteration/addition to an existing building which does not exceed 50m2, provided that any alteration/ addition does not exceed the height of the existing building and that any alteration/addition is to a building that existed at 28 April 2000; or* *(d) renovation or maintenance of any building.* *Note: The effect of this rule is that a resource consent is needed for any new building(s) not for human habitation with a gross floor area of greater than 50m2 or any building(s) for human habitation with a gross floor area of greater than 25m2.*	Does not comply. The proposed new dwelling will exceed the permitted 25m² for a habitable building and the future shed will also exceed the permitted 50m² for non-habitable buildings, outlined in part (a) of this rule. Part (b) will be complied with. Parts (c) and (d) are not applicable to the consent applications proposal. Despite the non-compliance with this rule, this infringement is not a Restricted Discretionary Activity. Instead, due to the site having an already approved building platform on it from a past consent, the proposal is now assessed against Rule 10.6.5.2.2 of the General Coastal Chapter (see below).
10.6.5.2.2 VISUAL AMENITY *Any new building(s) or alteration/additions to an existing building that does not meet the permitted activity standards in Rule 10.6.5.1.1 are a controlled activity where the new building or building alteration/addition is located entirely within a*	The proposal is a Controlled Activity under this rule due to being located within an already approved building platform

building envelope that has been approved under a resource consent.	
10.6.5.1.2 RESIDENTIAL INTENSITY *Residential development shall be limited to one unit per 20ha of land. In all cases the land shall be developed in such a way that each unit shall have at least 3,000m² for its exclusive use surrounding the unit plus a minimum of 19.7ha elsewhere on the property.* *Except that this rule shall not limit the use of an existing site or a site created pursuant to Rule 13.7.2.1 (Table 13.7.2.1) for a single residential unit for a single household.* *Note: There is a separate residential activity rule applying to Papakainga Housing (refer to Rule 10.6.5.2.1).*	Complies.
10.6.5.1.3 SCALE OF ACTIVITIES *The total number of people engaged at any one period of time in activities on a site, including employees and persons making use of any facilities, but excluding people who normally reside on the site or are members of the household shall not exceed 4 persons per site or 1 person per 1ha of net site area whichever is the greater.* *Provided that:* *(a) this number may be exceeded for a period totalling not more than 60 days in any 12 month period where the increased number of persons is a direct result of activities ancillary to the primary activity on the site; and* *(b) this number may be exceeded where persons are engaged in constructing or establishing an activity (including environmental enhancement) on the site; and* *(c) this number may be exceeded where persons are visiting marae.* *In determining the total number of people engaged at any one period of time, the Council will consider the maximum capacity of the facility (for instance, the number of beds in visitors accommodation, the number of seats in a restaurant or theatre), the number of staff needed to cater for the maximum number of guests, and the number and nature of the vehicles that are to be accommodated on site to cater for those engaged in the activity.* *Exemptions: The foregoing limits shall not apply to activities of a limited duration required by normal farming and plantation forestry activities, provided that the activity shall comply with the requirements of s16 of the Act.*	This is not applicable to the applications proposal.
10.6.5.1.4 BUILDING HEIGHT *The maximum height of any building shall be 8m.*	Complies. The proposed new dwelling will have a maximum height of 4.36m,

	as shown on the plans in Appendix B of this report.
10.6.5.1.5 SUNLIGHT *No part of any building shall project beyond a 45 degree recession plane as measured inwards from any point 2m vertically above ground level on any site boundary (refer to definition of Recession Plane in Chapter 3 - Definitions), except where a site boundary adjoins a legally established entrance strip, private way, access lot, or access way serving a rear site, the measurement shall be taken from the farthest boundary of the entrance strip, private way, access lot, or access way.*	Complies. Compliance with this rule is shown on the plans in Appendix B.
10.6.5.1.6 STORMWATER MANAGEMENT *The maximum proportion of the gross site area covered by buildings and other impermeable surfaces shall be 10%.*	Complies. Proposed and existing development on site will total no more than 1.5% of the overall area.
10.6.5.1.7 SETBACK FROM BOUNDARIES *(a) no building shall be erected within 10m of any site boundary, except that on any site with an area of less than 5,000m², this setback shall be 3m from any site boundary;* *(b) no building for residential purposes shall be erected closer than 100m from the boundary of the Minerals Zone.* *Where an application is made in terms of this rule, the owner and/or operator of any mine or quarry within the adjacent Minerals zone shall be considered an affected party. The written approval of the mine or quarry owner and/or operator shall be obtained. Where this approval cannot be obtained, the Council will consider the application as a discretionary activity application.* *Provided that no building set-back shall be required in respect of any boundary which adjoins a Maritime Exemption Area and the proposed activity occupies space within the General Coastal Zone and the Maritime Exemption Area.* *Attention is also drawn to the setback from Lakes, Rivers, Wetlands and the Coastline provisions in Chapter 12.7* *Note 1: Rules in Chapter 12.4 Natural Hazards control the location of buildings in the Coastal Hazard Areas.* *Note 2: This rule does not apply to the below ground components of wastewater disposal systems. However, provisions in Chapter 12.7 – Lakes Rivers Wetlands and the Coastline still apply to below ground components of wastewater treatment systems.*	Complies. As the plans in Appendix B show: The closest point of the proposed dwelling to the boundary is 39m, complying with part (a) of the rule. Part (b) of this rule is not applicable.

Attention is also drawn to the TP58 On-site Wastewater Systems: Design and Management Manual and the Regional Water and Soil Plan for Northland, as consent may be required.	
10.6.5.1.8 TRANSPORTATION *Refer to Chapter 15 – Transportation for Traffic, Parking and Access rules.*	These are complied with as the original subdivision application created the sites access.
10.6.5.1.9 KEEPING OF ANIMALS *Any building, compound or part of a site used for factory farming, boarding kennels or a cattery shall be located no closer than 50m from any site boundary except for a boundary which adjoins the Residential, Coastal Residential or Russell Township Zones where the distance shall be a minimum of 600m.*	This is not applicable to the consent application.
10.6.5.1.10 NOISE *All activities shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits at or within the boundary of any other site in this zone, or at any site zoned Residential, Russell Township or Coastal Residential, or at or within the notional boundary of any dwelling in any other rural or coastal zone:* - *0700 to 2200 hours* - *55 dBA L10* - *2200 to 0700 hours* - *45 dBA L10 and* - *70 dBA Lmax* *Exemptions: The foregoing limits shall not apply to activities of a limited duration required by normal farming and plantation forestry activities provided that the activity shall comply with the requirements of s16 of the Act.* *<u>Noise Measurement and Assessment:</u>* *Sound levels shall be measured in accordance with NZS 6801:1991 "Measurement of Sound" and assessed in accordance with NZS 6802:1991 "Assessment of Environmental Sound".* *The notional boundary is defined in NZS 6802:1991 "Assessment of Environmental Sound" as a line 20m from any part of any dwelling, or the legal boundary where this is closer to the dwelling.* *<u>Construction Noise:</u>* *Construction noise shall meet the limits recommended in, and shall be measured and assessed in accordance with NZS 6803P:1984 "The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work".*	The application's proposal will comply with this rule.
10.6.5.1.11 HELICOPTER LANDING AREA *A helicopter landing area shall be at least 200m from the nearest boundary of any of the Residential, Coastal Residential, Russell Township or Point Veronica Zones.*	This is not applicable to the consent application.

12.3.6.1.2 EXCAVATION AND/OR FILLING, INCLUDING OBTAINING ROADING MATERIAL BUT EXCLUDING MINING AND QUARRYING, IN THE RURAL LIVING, COASTAL LIVING, SOUTH KERIKERI INLET, GENERAL COASTAL, RECREATIONAL ACTIVITIES, CONSERVATION, WAIMATE NORTH AND POINT VERONICA ZONES *Excavation and/or filling, excluding mining and quarrying, on any site in the Rural Living, Coastal Living, South Kerikeri Inlet Zone, General Coastal, Recreational Activities, Conservation, Waimate North and Point Veronica Zones is permitted, provided that:* *(a) it does not exceed 300m³ in any 12 month period per site; and* *(b) it does not involve a cut or filled face exceeding 1.5m in height i.e. the maximum permitted cut and fill height may be 3m.*	Does not comply. The proposal cannot comply with part (a) of this rule as 3000m³ of earthworks (cut and fill combined) are required to create the building platform on the site. Part (b) will also not be complied with as the maximum cut and fill height will be 3.8m. The above calculations also don't comply with the requirements for earthworks in the General Coastal Zone as outlined in Rule 12.3.6.2.1 of the District Plan either and therefore means the required earthworks are a Discretionary Activity in line with Rule 12.3.6.3.
12.4.6.1.2 FIRE RISK TO RESIDENTIAL UNITS *(a) Residential units shall be located at least 20m away from the drip line of any trees in a naturally occurring or deliberately planted area of scrub or shrubland, woodlot or forest;* *(b) Any trees in a deliberately planted woodlot or forest shall be planted at least 20m away from any urban environment zone, Russell Township or Coastal Residential Zone boundary, excluding the replanting of plantation forests existing at July 2003.*	Complies.

5.1.2.2 As shown by the table above, the following rules are not complied with:

- Rule 10.6.5.2.2 Visual Amenity
- Rule 12.3.6.1.2(a) and (b) Excavation and/or filling in the General Coastal Zone

5.1.2.3 A Controlled Activity Resource Consent is required for the new buildings under Rule 10.6.5.2.2, but the other non-compliance requires a Discretionary Activity Resource Consent. Due to the Discretionary Activity being the higher activity status, the application is to be assessed as a Discretionary Activity application overall under the Operative District Plan.

5.2 Far North District Council Proposed District Plan

5.2.1 Zoning and Features

5.2.1.1 As well as assessment under the Operative District Plan, the applications proposal also needs to be assessed under the relevant provisions of the new Far North Proposed District Plan (Notified 27th July 2022).

5.2.1.2 Not all of the Proposed Plan has legal effect, so only the relevant sections to the subject site and its proposal are to be assessed in this part of the report.

5.2.1.3 The site is zoned Rural Production under the Proposed District Plan and is subject to the Ngatikahu ki Whangaroa Treaty Settlement Area of Interest overlay. It also has a small portion of the property located within the Coastal Environment Overlay (although the house is not located within this area), as well as a very small portion of the sites north western corner overlaid with River Flood Hazard Zone (100 Year ARI Event), and Coastal Flood (Zones 1, 2 and 3) overlays, although the hazard overlays are located nowhere near the proposed development on the site.

5.2.1.4 The Rural Production zone is the largest zone in the District and accounts for approximately 65% of all land. The Rural Production zone is a dynamic environment, influenced by changing farming and forestry practices and by a wide range of productive activities. The purpose of this zone is to provide for primary production activities including non-commercial quarrying, farming, intensive indoor primary production, plantation forestry activities, and horticulture. The Rural Production Zone also provides for other activities that support primary production and have a functional need to be located in a rural environment, such as processing of timber, horticulture, apiculture and dairy products. There is also a need to accommodate recreational and tourism activities that may occur in the rural environment, subject to them being complementary to the function, character and amenity values of the surrounding environment. This zone includes land subject to the Coastal Environment Overlay, which has provisions to protect the natural character of the coastal environment.

5.2.1.5 Rural land is an important resource as it underpins the social, economic and cultural well-being of the Far North District. The historic fragmentation of rural land has undermined the integrity of the rural environment and its ability to function for its intended purpose. It is important to protect this finite resource from inappropriate land use and subdivision to ensure it can be used for its primary purpose. In particular, primary production activities should be able to operate without experiencing reverse sensitivity effects based on complaints about noise, dust, heavy traffic and light spill (which may be temporary or seasonal in nature) that should be anticipated and tolerated in a rural environment. This is particularly relevant for rural land adjacent to the District's larger urban areas, which are subject to growth pressures and are expanding outside of urban zoned areas. Forcing primary production activities to locate further away from urban areas adds to the cost of transporting primary products, can result in primary production activities needing to move on to less suitable soils or topography, and may require people to travel further to work.

5.2.1.6 It is important to differentiate the Rural Production zone from the Rural Lifestyle zone and the Rural Residential zone. The Rural Lifestyle and Rural Residential zones seek to concentrate rural lifestyle or rural residential living in appropriate places in the District, to help avoid further fragmentation of productive land and reverse sensitivity effects on the District's primary sector. Conversely, rural lifestyle development is not provided for in the Rural Production Zone unless an environmental benefit is obtained through the protection of indigenous biodiversity in perpetuity (as provided for in the Subdivision chapter). Industrial and commercial activities, including retail, are not anticipated in the Rural Production zone as these are best located in urban zones with appropriate infrastructure or in the Settlement zone. This also ensures that industrial and commercial activities are separated from potentially incompatible primary production activities.

5.2.1.7 Council has a responsibility under the RMA and the Northland Regional Policy Statement to manage the rural land resource to provide for the economic, social and cultural well-being of people and communities, protect highly versatile soils, and avoid reverse sensitivity effects on primary production activities. The Rural Production zone also contains many of our areas of indigenous biodiversity, historical and cultural values and high value landscapes and features. The protection of these resources must be managed in conjunction with the ability to undertake activities anticipated in this zone.

5.2.1.8 The Rural Production Zone chapter in the Proposed Plan does not have legal effect at the time of submitting this resource consent application and as such no rules in this chapter relating to the site need to be assessed and/or addressed.

5.2.1.9 Its worth pointing out that under the Proposed Plan, in the Rural Production Zone, the proposed dwelling and its accompanying garage would be permitted activities as there is no visual amenity rule within this zone to trigger the consenting requirements that the General Coastal Zone has under the Operative Plan.

5.2.1.10 Below are the relevant Rules from the Earthworks chapter of the Proposed Plan which do have legal effect. The applications required earthworks are assessed against these rules:

EW-S1	***Maximum Earthworks Thresholds***	**Comments**
All Zones except Moturoa Island, Orongo Bay	*The following maximum volumes and area thresholds for all earthworks undertaken on a site within a single calendar year:* *Rural Production Zone – 5000m3 and 2500m2*	Complies. The applications proposal requires 3000m³ of earthworks – cut and fill – to be undertaken over an area of 2160m².
EW-S2	***Maximum depth and slope***	**Comment**
All Zones	*The maximum depth of any cut or height of any fill shall not exceed:* *1.5m, i.e. maximum permitted cut and fill height may be 3m; or* *3m subject to it being retained by a engineered retaining wall, which has had a building consent issued.*	Does not comply. Overall, there will be a maximum combined cut depth/height of 3.8m.
EW-S3	***Accidental Discovery Protocol***	**Comment**
All Zones	*On discovery of any suspected sensitive material, the person must take the following steps:* *1. Cease all works within 20m of any part of the discovery immediately and secure the area, including:* *i. shutting down all earth disturbing machinery and stopping all earth moving activities; and* *ii. establish a sufficient buffer area to ensure that all material remains undisturbed.* *2. Within 24 hours of the discovery the owner of the site, tenant or the contractor must:* *i. inform the following parties of the discovery:*	Will comply. Council can impose standard conditions of consent on the consent decision to ensure compliance if deemed necessary..

	▪ *The New Zealand Police if the discovery is of human remains or kōiwi;* ▪ *The Council in all cases;* ▪ *Heritage New Zealand Pouhere Taonga if the discovery is an archaeological site, Māori cultural artefact, human remains or kōiwi;* ▪ *Tangata Whenua if the discovery is an archaeological site, Māori cultural artefact, or kōiwi.* *3. No works shall recommence until the discovery area is inspected by the relevant authority or agency, this shall include:* *i. If the discovery is human remains or kōiwi the New Zealand Police are required to investigate the human remains to determine whether they are those of a missing person or a crime scene. The remainder of this process will not apply until the New Zealand Police confirm that they have no further interest in the discovery; or* *ii. If the discovery is of archaeological material, other than evidence of contaminants, a site inspection for the purpose of initial assessment and response will be arranged by the Council in consultation with Heritage New Zealand Pouhere Taonga and appropriate Tangata Whenua representatives.* *4. Recommencement of work:* *i. Heritage New Zealand has confirmed that an archaeological authority has been approved for the work or that none is required;* *ii. Any required notification under the Protected Objects Act 1975 has been made to the Ministry for Culture and Heritage;* *ii. Resource consent has been granted to any alteration or amendment to the earthworks or land disturbance that may be necessary to avoid the sensitive materials that is not otherwise permitted under the plan or allowed by any existing resource consent.*	
EW-S4	***Site Reinstatement***	**Comment**
All Zones	*As soon as practicable, but no later than six months from the commencement of works:* - *the earthworks area shall be stablished, filled and/or recontoured in a manner consistent with the surrounding land.* - *replanted with vegetation which is the same as, or of similar species, to that which existed on the site prior to the earthworks taking place (if any), except that where the site was vegetation with any plant pest, the site may be replanted with indigenous vegetation, from locally sourced genetic stocks or* - *sealed, paved, metaled or built over.*	Will Comply. Council can impose standard conditions of consent on the consent decision to ensure compliance.

EW-S5	Erosion and Sediment Control	Comment
All Zones	Earthworks i. Must for their duration be controlled in accordance with the Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016 (Auckland Council Guideline Document GD2016/005); ii. shall be implemented to prevent silt or sediment from entering water bodies, coastal marine area, any stormwater system, overland flow paths, or roads.	Will Comply. Council can impose standard conditions of consent on the consent decision to ensure compliance.
EW-S6	**Setback**	**Comment**
All Zones	Earthworks must be setback by the following minimum distances: i. earthworks supported by engineered retaining walls - 1.5m from a site boundary; ii. earthworks not supported by engineered retaining walls - 3m from a site boundary; iii. earthworks must be setback by a minimum distance of 10m from coastal marine area. **Note:** setbacks from waterbodies is managed by the Natural Character chapter.	Complies.
EW-S7	**Land Stability**	**Comment**
All Zones	Earthworks must not result in any instability of land at or beyond the boundary of the property where the earthworks occurs.	Complies.
EW-S8	**Nature of Filling Material**	**Comment**
All Zones	The fill material shall not: i. contain putrescible, pollutant, inflammable or hazardous components; ii. consist of material other than soil, rock, stone, aggregate, gravel, sand, silt, or demolition material. iii. comprise more than 5% vegetation (by volume) of any load.	Complies
EW-S9	**Flood and Coastal Hazards**	**Comment**
All Zones	Earthworks must not: i. divert flood flow or coastal inundation onto other properties or otherwise result in any increase in flood hazard or coastal inundation beyond the boundaries of the site. ii. result in the loss of any flood storage volume within a flood hazard area, unless equivalent flood storage is provided.	Complies.

5.2.1.10 The following chapters also have rules with legal effect in them:

- Hazards and Risks – Hazardous Substances
- Historical Values – Heritage Area Overlays

- Historical Heritage – Historical and Cultural Values
- Historical Heritage – Notable Trees
- Historical Heritage – Sites and Area of Significance to Maori
- Natural Environment Values – Ecosystems and Indigenous Biodiversity
- Subdivision
- General District Wide Matters – Signs
- General District Wide Matters – Activities on the Surface of Water

None of the rules in the above Proposed District Plan chapters have any relevance to the applications proposal or subject site and as such have not been included in this report.

5.2.1.11 As you can see from the earthworks table, just one earthworks rule is not complied with. This rule is:

- Rule EW-S2 Maximum depth and slope

5.2.1.12 Due to this non-compliance, a Restricted Discretionary Activity Resource Consent is required (and to be assessed under the matters of discretion for Rule EW-S2)

5.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCL)

5.3.1 An assessment of the NESCS is not considered necessary as the use of the land on the subject site is not changing. Also, the site is not listed on Council's Smart Maps as a "potential HAIL site". The NES would have also been dealt with as part of the past subdivision that created this allotment.

5.4 National Policy Statement for Highly Productive Land (NPSHPL)

5.4.1 The subject sites soil type is LUC Class 6 Soil and as such the NPSHPL is not applicable to the subject site or this resource consent applications proposal.

5.5 Overall Resource Consent Activity Status Conclusion

5.4.1 Overall, the consent application is to be assessed as a Discretionary Activity in line with the findings of Sections 5.1 to 5.4.

6 Resource Management

6.1 Section 95 – Notification

6.1.1 The new step by step section 95 process has been followed below:

Step 1: Mandatory Public Notification – s95A(2) and (3)

Criteria		Yes/No
(a)	Public Notification at Applicant's request - s95A(3)(a)	No
(b)	Public Notification is required under section 95C (s95A(3)(b))	No
(c)	Public Notification is required as the application is a joint application with an application under section 15AA of the Reserves Act 1977, to exchange recreation reserve land (s95A(3)(c))	No

Step 2: Public Notification Precluded in Certain Circumstances – s95A (4) and (5)

Criteria		Yes/No
(a)	Rules or National Environmental Standards that preclude public notification – s95A(5)(a)	No
(b)	Any Controlled Activities – s95A(5)(b)(i)	No
(c)	Boundary Activities – Restricted Discretionary, Discretionary or Non Complying – s95A(5)(b)(iii)	No

Step 3: Public Notification Required in Certain Circumstances - s95A(7)

Criteria		Yes/No
(a)	The application is for one or more activities and any of those activities is subject to a rule or NES which **requires** public notification – s95A(8)(a)	No

Assessment of Environmental Effects – s95A(8)(b)

Overall, the proposed land use activity in this consent application is a Discretionary Activity.

Clause 2(3) of Schedule 4 RMA requires an assessment of the activity's effects on the environment. The level of detail should correspond with the scale and significance of the potential effects of the activity on the environment. The following actual and potential adverse effects, and positive effects have been identified and assessed for this proposal.

Visual Amenity

The applications proposal is to construct a new residential dwelling on the subject site (with accompanying shed), which is considered to be entirely in keeping with its immediately adjoining rural-residential and coastal surroundings.

The proposed building is single storey and compliant with the zones underlying development controls, such as height, daylight and yard setback requirements, so therefore will not result in any adverse bulk, scale, shading or privacy effects upon its neighbouring sites. The underlying sizes overall area means that there are no neighbouring dwellings in close proximity to the subject site either, and with adjoining properties home to extensive areas of

vegetation, the proposed development in this application will likely not be visible from the sites surrounds.

The proposed dwelling will exceed the 50m² Visual Amenity Permitted standards for the zone, but the new building is considered to be of good architectural design and contribute positively, aesthetically to the area in which it is to be located. The proposed shed structure which is shown on the plans will also exceed the permitted size/area for non-habitable buildings in the zone, and despite no design being decided on for the building at the time of applying, its area is known and is included in this consent application. The shed will comply with the underlying zone rules, be located within the designated - and approved - building platform for the site and will also comply with the colour requirements for the zone too. If, for any reason when the shed comes to be built, that it doesn't comply with any of these aforementioned matters, another resource consent will be sought by the applicants.

As the proposed dwelling will be built within an already approved building site on the property – which makes this aspect of the application a Controlled Activity (this was part of the original subdivision application which created the subject site) - the location of the dwelling is considered to be acceptable to Council given that this building platform would have been assessed and future development within it considered appropriate for its location within the coastal environment.

The new dwelling is considered small in scale when compared to most modern build homes, having a floor area of just 116.48m² and a roof area of 149.58m². This size, combined with its single storey design and location set down into the slope of the subject site on the designated building platform, should ensure that there are no visual amenity effects arising from Council granting this applications proposal for the subject site.

The proposed shed for the site will have a maximum area of 81m². Although this exceeds the permitted area for non-habitable buildings in the General Coastal Zone, it will be located within the already approved designated building area and will comply with the colour requirements for the zone too, as explained earlier. Given the rural nature of this area, along with the fact the zone will change to Rural Production under the upcoming Proposed District Plan, this accessory building is considered entirely in keeping with the existing built form and character of this part of the District and is of a size and scale considered appropriate for the property.

The proposed colours and materials of the new dwelling will also comply with the requirements of the Visual Amenity Rules for the zone, as shown on the plans in Appendix B of this report.

Overall, there are not considered to be any adverse visual amenity effects resulting from the applications proposed development on the subject site.

Earthworks

As touched on in Section 1 of this report, the following earthworks are to be undertaken on the site as part of the proposed development:

Earthworks	
Proposed Cut	1,500m³
Proposed Fill	1,500m³

Total Cut and Fill	3,000m³
Cut Surface Area	1,410m²
Fill Surface Area	750m²
Overall surface Area	2,160m²
Maximum Cut Height	2.3m
Maximum Fill Height	1.5m
Combined Cut and Fill Height	3.8m

The proposed earthworks volumes and areas appear large at first view, but when compared to the overall size of the site, as well as the topography of the site, it is quick to realise that they are actually relatively moderate in their scale and to be expected for a proposal such as this.

The 1,500m³ of cut is being undertaken in order to prepare an area in the designated building platform for the proposed new dwelling in this consent application. Due to the sloping nature of the topography of this area of the site, the resulting volume of cut is large and far exceeds the underlying permitted volume of 300m³ for the General Coastal Zone. The cut material though will all be reused on site as fill, of the same quantity, and this will be used for creating a battered area to the west of the proposed dwelling, within the designated building platform.

The above earthworks volumes will be cut and filled over an area of 1,410m². This total area is a direct result of the sites topography also, with flat areas not only needing to be created for the proposed house and garage building platforms, but also for a flat driveway area around these structures for the parking of vehicles and on-site manoeuvring, but also for the areas of cut and fill too.

The Wilton Joubert Geotechnical Report in Appendix D outlines the ground conditions of the site and its suitability for the proposed development. With regards to ground stability in the location of the site where the new dwelling is proposed, they found:

- *No obvious evidence of deep-seated instability within the immediate vicinity of the building site or surrounding influential land,*

- *Broad, gently moderate sloping nature of the building site, averaging 8° to 10°, and land downslope which continues at similar inclinations or less for a considerable distance of approximately 225m,*

- *Generally, very stiff to hard, measured in-situ Vane Shear Strengths recorded during our investigation and high DCP blow counts measured at the invert of HA03, ultimately refusing at a depth of 5.7m BEGL, and*

- *Lack of groundwater evidence within our HA's.*

They perceived the risk of deep-seated global slope instability or soil creep impacting the proposed development to be significantly low.

Overall, the conclusions and recommendations from the Wilton Joubert Report are:

"we consider that the risk of moderate to deep-seated slope instability impacting on the proposed development to be non-existent, provided all recommendations contained within our report are implemented in design and construction.

With regard to the Building Act 2004; Sections 71-72, we believe on reasonable grounds that:

i. The current proposed site development and associated building work within the relayed building platform should not accelerate, worsen, or result in slippage or subsidence on the land on which the building work is to be carried out or any other property, and

ii. The land beneath the building footprint and surrounding immediate amenity areas of the relayed building platform are neither subject nor likely to be subject to slippage or subsidence, provided the development is undertaken in accordance with the recommendations and guidance of this report."

In section 9.2 to 9.8 of their report, there is a detailed assessment of the proposed earthworks on the site. This gives recommendations around the formation and creation of the cut and fill batters as well as standard advice around undertaking the earthworks on the site. It is suggested that should Council's engineers and the processing planner consider it necessary, the findings and recommendations of this report around earthworks can be utilised and included with the standard Council conditions of consent around earthworks for the applications proposed development.

The proposed earthworks on site should – weather allowing – be able to be undertaken and completed on site within a short timeframe, ensuring their temporary nature. All works will also be well away from the site's boundaries which, given the moderate cut heights that are being undertaken, should ensure that there are no stability or hazard exacerbation issues with regards to neighbouring sites.

Finally, although the site is currently zoned General Coastal, under the new Proposed District Plan the site's zoning will change to Rural Production. Under this zoning the permitted earthworks volumes are 5000m3 and 2500m2. If the application was being submitted under these rules once the new District Plan had legal effect and became operate, the required earthworks on the site would not have required a resource consent for the cut and fill as they would have been considered permitted activities.

Although under the earthworks rules for the Proposed Plan the exceedance of the 3m permitted cut and fill height Rule EW-S2 would have triggered a Restricted Discretionary Resource Consent, this infringement is not considered to result in adverse effects upon the immediately surrounding environment or neighbours for the reasons already outlined in this section of the Assessment of Environmental Effects report and the Wilton Joubert Report in Appendix D. The exceedance of the cut and fill height is a combined measurement and will not result in a 3.8m cut height on the property.

Overall, the earthworks required to achieve the proposed development onsite are considered to be of a size and scale in terms of both volume and area which are appropriate for the site, and which will not result in adverse effects upon the sites surrounds. They are also temporary

in nature, so weather permitting will result in no long-term effects. As no cut is leaving the site, there will be no adverse effects arising from truck movements to and from the site either.

On-Site Services

The proposed new dwelling is compliant with the Stormwater Management Rule requirements for the zone and as such the immediately adjoining and wider environment is not considered to be at risk from stormwater generated on the site from the new development.

Water supply is from 2 x ProMax 25,000L water tanks which will be located to the south of the proposed dwelling on the site, within the designated building platform. These tanks will also contribute to stormwater management on the site collecting water generated by the new dwellings roof area and feeding this out through a stormwater tank overflow pipe down to a stormwater spreader located to the south of the building platform.

On-site wastewater will be managed on site in line with the recommended system in the Kerikeri Drainage Ltd On-Site Wastewater Disposal Report found in Appendix C of this report. The twin chambered septic tank is shown on Plan A002 in Appendix B, as are the Primary and Reserve effluent areas located to the west of the house site.

Assessment of Effects Summary

It is concluded that the effects on the environment will be less than minor and acceptable. In reaching this conclusion, regard has been given to the non-compliances of the proposal. It has been concluded that all effects are able to be managed within the site that they are generated.

Step 4: Public Notification in Special Circumstances - s95A(9)

There are no special circumstances as there is nothing that is unusual, abnormal or exceptional about this application.

6.2 Section 95B – Effects on owners and occupiers

6.2.1 The steps set out in sections 95B(2) – 95B(10) must be followed to determine whether to give limited notification of an application for a resource consent, if the application is not publicly notified under section 95A.

Step 1: Certain Affected Groups and Affected Persons must be notified - s95B(2)-(4)

Criteria		Yes/No
(a)	Are there any affected protected customary rights groups – s95B(2)(a)	No
(b)	Is the activity on or adjacent to or may affect land that is the subject of a statutory acknowledgement made in accordance with an Act specified in Schedule 11 – s95B(3)(a)	No

Step 2: Limited Notification Precluded in Certain Circumstances – s95B(5)(6)

Criteria		Yes/No
(a)	The application is for one or more activities and each activity is subject to a rule or NES that precludes Limited Notification – S95B(6)(a)	No
(b)	The application is a controlled activity landuse -s95B(6)(b)(i)	No
(c)	The application is a prescribed activity (see section 360H(1)(a)(ii))	No

Step 3: Certain other persons must be notified – s95B(7)

6.2.2 The application is for a proposed new residential dwelling on the subject site which is unable to comply with underlying zone rules relating to Visual Amenity and earthworks from the Operative Plan, and Earthworks Rules in the Proposed Plan.

6.2.3 An assessment is now required under s95B(8) to determine whether a person is an affected person in accordance with section 95E.

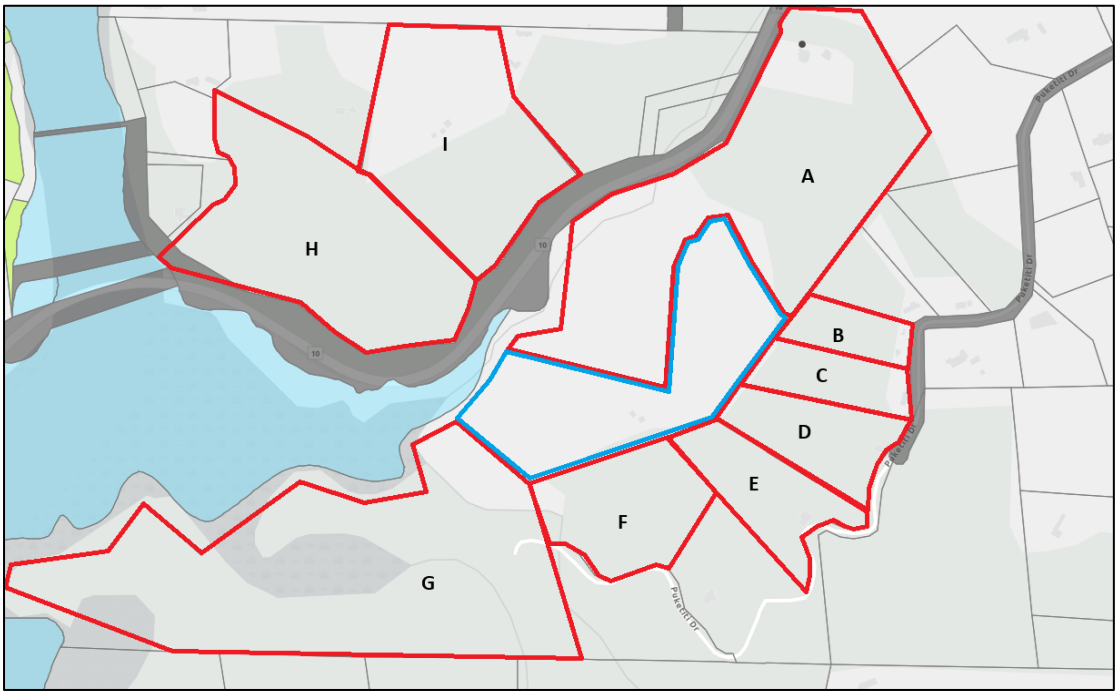


Figure 5: Location of Persons Considered under Section 95 (E) – neighbouring properties outlined in Red (subject site in Blue).

Table 1 below corresponds with Figure 5 above and identifies the neighbouring property owners that have been considered:

Property Reference	Property Address	Legal Description
A	2791 State Highway 10, Mangonui	Lot 1 Deposited Plan 603728
B	66 Puketiti Drive, Mangonui	Lot 14 Deposited Plan 194290
C	72 Puketiti Drive, Mangonui	Lot 15 Deposited Plan 194290
D	84 Puketiti Drive, Mangonui	Lot 1 Deposited Plan 415352
E	100 Puketiti Drive, Mangonui	Lot 2 Deposited Plan 423040

F	140 Puketiti Drive, Mangonui	Lot 3 Deposited Plan 600359
G	-	Lot 7 Deposited Plan 600359
H	2884C State Highway 10, Mangonui	Lot 4 Deposited Plan 142854
I	-	Lot 5 Deposited Plan 142854

6.2.4 It is considered that there are no other properties that will be affected by the applications proposal on the subject site.

6.2.5 Each neighbouring property outlined above in Table 1 is assessed and addressed against the applications proposal below:

Property A – 2791 State Highway 10, Mangonui
This is a large, irregularly shaped allotment located to the north of the subject site.

This property was once part of a larger lot, which the subject site was subdivided from as part of a subdivision application for the site processed by Council back in 2023.

The site is home to an existing dwelling found in the northern corner of the property, with its northern half covered in mature vegetation and bush.

Due to the large portion of bush on this property, the existing dwelling on the site will not be able to see the proposed dwelling in this application for the subject site.

The existing dwelling on this property is also approximately 200m from the designated building platform on the subject site, where the proposed new dwelling in this application will be located. This is considered more than adequate and appropriate separation distance for a new residence (which will not be infringing any underlying zone rules) in this rural residential part of the district.

As this resource consent applications proposed new dwelling will not be directly infringing any underlying zone rules in relation to this site; it will be built in a pre-approved designated building platform on the site; and is in a position which is not readily visible from the sites surrounds; this property is not considered to be adversely affected by the proposal.

Property B – 66 Puketiti Drive, Mangonui
This is a smaller property than the subject site, located to the east and accessed from Puketiti Drive.

The property is home to an existing dwelling located close to the road, with over half of the site covered in native bush.

Due to the existing vegetation on the site, this property will not be able to readily see the applications proposed dwelling once it is built on the subject site.

This property is also not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

Property C – 72 Puketiti Drive, Mangonui
Again, this is a smaller property than the subject site, located to the east and accessed from Puketiti Drive.

The property is home to an existing dwelling located close to Puketiti Drive, with over 95% of the site covered in native bush.

Due to the existing vegetation on the site, this property will not be able to readily see the applications proposed dwelling once it is built on the subject site.

This property is also not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

Property D – 84 Puketiti Drive, Mangonui
This property is located to the east of the subject site and accessed from Puketiti Drive.

The property is home to an existing dwelling located close to the road, with over 95% of the site covered in native bush.

Due to the existing vegetation on the site, this property will not be able to readily see the applications proposed dwelling once it is built on the subject site.

This property is also not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

Property E – 100 Puketiti Drive, Mangonui
This property is located to the south of the subject site and accessed from Puketiti Drive.

The property is home to an existing dwelling located close to Puketiti Drive, with over 95% of the site covered in native bush.

Due to the existing vegetation on the site, this property will not be able to readily see the applications proposed dwelling once it is built on the subject site.

This property is also not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

Property F – 140 Puketiti Drive, Mangonui
This property is located to the south of the subject site and accessed from Puketiti Drive.

The property is home to an existing dwelling located close to a right of way to Puketiti Drive, with over 95% of the site covered in native bush.

Due to the existing vegetation on the site, this property will not be able to readily see the applications proposed dwelling once it is built on the subject site.

This property is also not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

Property G – Lot 7 Deposited Plan 600359
This is a large property located to the southwest of the subject site. It appears to be undeveloped and completely covered in native bush with some patches of low-lying wetland.

Access to the site is via a right of way to Puketiti Drive.

Due to the existing vegetation on the site, this property will not be able to readily see the applications proposed dwelling once it is built on the subject site.

This property is also not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

Property H – 2884C State Highway 10, Mangonui
This site is located to the north of the subject site on the opposite side of State Highway 10.

It is home to existing vegetation and some sort of rural production use. There does not appear to be any built form on the site.

This property is not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

Property I – Lot 5 Deposited Plan 142854
This site is located to the north of the subject site on the opposite side of State Highway 10.

The northern half of the site is cleared and in pasture with an existing dwelling, with the other, southern half completely covered in existing vegetation.

This property is not directly affected by any underlying District Plan rule infringements. Due to this, this property is not considered to be adversely affected by the applications proposal.

6.2.6 Conclusion
Accordingly, for the reasons stated above, all effects upon the owners and occupiers of the above-mentioned properties are considered to be less than minor. No written approvals have been submitted with the application as it is considered that no parties are affected by the proposal. Accordingly, it is recommended that the application is processed on a **non-notified** basis.

7 Substantive Decision

7.1 Section 104B – Determination of Applications

7.1.1 Council's decision in terms of the Discretionary Activity must be made in relation to Section 104B of the Resource Management Act (RMA). Section 104B states:

104B Determination of applications for discretionary or non-complying activities

- *After considering an application for a resource consent for a discretionary activity or non-complying activity, a consent authority—*
    - *(a) may grant or refuse the application; and*
    - *(b) if it grants the application, may impose conditions under section 108.*

Section 104 outlines the following matters, which are relevant for consideration of the application:

"(1) (a) any actual and potential effects on the environment of allowing the activity; and
(b) any relevant provisions of –
(vi) a plan or proposed plan; and
(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

7.2 Section 104 Assessment

7.2.1 Operative and Proposed District Plan Assessment Criteria

7.2.2.1 Matters relating to the District Plans relevant assessment criteria have been discussed in detail within section 6 of this report of this Report where it was concluded that the adverse effects of the proposal will be no more than minor. Despite this, and for completeness, the relevant assessment criteria are outlined below in *italic font*, with assessment and summary of these criteria accompanying them.

7.2.2.2 Below are the relevant criteria from the Operative District Plan:

10.6.5.2.2 VISUAL AMENITY
Any new building(s) or alteration/additions to an existing building that does not meet the permitted activity standards in Rule 10.6.5.1.1 are a controlled activity where the new building or building alteration/addition is located entirely within a building envelope that has been approved under a resource consent.

When considering an application under this provision the Council will restrict the exercise of its discretion to matters relating to:

(i) the size, bulk, and height of the building in relation to ridgelines and natural features;
(ii) the colour and reflectivity of the building;
(iii) the extent to which planting can mitigate visual effects;
(iv) any earthworks and/or vegetation clearance associated with the building;
(v) the location and design of associated vehicle access, manoeuvring and parking areas;
(vi) the extent to which the building and any associated overhead utility lines will be visually obtrusive;
(vii) the cumulative visual effects of all the buildings on the site;
(viii) the degree to which the landscape will retain the qualities that give it its naturalness, visual and amenity values;
(ix) the extent to which private open space can be provided for future uses;
(x) the extent to which the siting, setback and design of building(s) avoid visual dominance on landscapes, adjacent sites and the surrounding environment;

(xi) the extent to which non-compliance affects the privacy, outlook and enjoyment of private open spaces on adjacent sites.

With regards to points (i), (ii) and (iii) above, the house is considered to be small in scale in terms of the overall site and compared to other existing residences and buildings in the area. The dwelling is single storey in design and even with the accompanying standalone garage, the built form on the site will only cover 1.5% of the site area – 8.5% under the allowable building coverage for the site as provided for under the zones Stormwater Management rule.

The proposed building(s) will comply with the colour and reflectivity requirements of the zone and planting will be undertaken on site to provide some visual amenity mitigation and screening for the proposed development.

In terms of point (iv), Earthworks and their effects are dealt with extensively in both Section 6 of this report and in the accompanying geotechnical report in Appendix D.

The access criteria in (v) was dealt with at the subdivision stage which created this lot and will be utilized for the proposed development in this application.

Point (vi) is not applicable to the site or proposal.

With only two buildings proposed on site, and both will be located within an already approved designated building platform on the subject site, there are not considered to be any adverse cumulative effects upon the site or its immediate or wider surrounds for reasons dealt with in Section 6 of this report. This addresses point (vii).

The sites landscape will retain the qualities that give it its naturalness, visual and amenity values as highlighted in (viii) thanks to the positioning of the proposed structures on site within the already approved building platform.

The site is of a size and scale which provides for plenty of private open space to be utilized by the onsite residence and for potential future uses, as required by criteria (ix).

In terms of criteria *"(x) the extent to which the siting, setback and design of building(s) avoid visual dominance on landscapes, adjacent sites and the surrounding environment",* the on-site building platform ensures that this is achieved and that there are no adverse effects arising from the proposed developments positioning and location on the property.

In terms of criteria (xi), the non-compliances resulting from this application's proposal are not considered to result in adverse effects with regards to the privacy, outlook and enjoyment of private open spaces on adjacent sites.

12.3.7 ASSESSMENT CRITERIA (SOILS AND MINERALS)

The matters set out in s104 and s105, and in Part II of the Act, apply to the consideration of all resource consents for land use activities. In addition to these matters, the Council shall also apply the relevant assessment matters set out below:

(a) the degree to which the activity may cause or exacerbate erosion and/or other natural hazards on the site or in the vicinity of the site, particularly lakes, rivers, wetlands and the coastline;

(b) any effects on the life supporting capacity of the soil;
(c) any adverse effects on stormwater flow within the site, and stormwater flow to or from other properties in the vicinity of the site including public roads;
(d) any reduction in water quality;
(e) any loss of visual amenity or loss of natural character of the coastal environment;
(f) effects on Outstanding Landscape Features and Outstanding Natural Features (refer to Appendices 1A and 1B in Part 4, and Resource Maps);
(g) the extent to which the activity may adversely affect areas of significant indigenous vegetation or significant habitats of indigenous fauna;
(h) the extent to which the activity may adversely affect heritage resources, especially archaeological sites;
(i) the extent to which the activity may adversely affect the cultural and spiritual values of Maori, especially Sites of Cultural Significance to Maori and waahi tapu (as listed in Appendix 1F in Part 4, and shown on the Resource Maps);
(j) any cumulative adverse effects on the environment arising from the activity;
(k) the effectiveness of any proposals to avoid, remedy or mitigate any adverse effects arising from the activity;
(l) the ability to monitor the activity and to take remedial action if necessary;
(m) the criteria in Section 11.20 Development Plans in Part 2.
(n) the criteria (p) in Section 17.2.7 National Grid Yard.

With regards to the earthworks criteria above:

- The applications earthworks have been assessed extensively in Section 6 of this report.
- The proposed earthworks are of a size and scale considered appropriate for the subject site and the proposed development on it.
- The applications proposal is not considered to exacerbate erosion or natural hazards on the site.
- The proposed development will not reduce the life supporting capacity of the soils and is not anticipated to result in any adverse impacts upon water quality.
- The earthworks will be built in accordance with the recommendations of the applications accompanying geotechnical report and standard conditions of consent which could be attached to any consent decision issued for the application. As such, this will ensure that any adverse visual effects from the development will be managed and minimalized.
- The applications proposal and its earthworks are not considered to be adversely affecting heritage resources nor sites of cultural significance to Maori.

7.2.2.3 Below are the relevant assessment criteria from the Proposed District Plan:

EW-S2 All Zones - Maximum Depth and Slope
Where the standard is not met, matters of discretion are restricted to:

(a) the location, scale and volume;
(b) depth and height of cut and fill;
(c) the extent of exposed surfaces or stockpiling of fill;
(d) the risks of natural hazards, particularly flood events;
(e) stormwater controls;
(f) flood storage, overland flow paths and drainage patterns;
(g) impacts on natural coastal processes;
(h) the stability of land, buildings and infrastructure;

(i) natural character, landscape, historic heritage, spiritual and cultural values;
(j) the life-supporting capacity of soils;
(k) the extent of indigenous vegetation clearance and its effect on biodiversity;
(l) impact on any outstanding natural character, outstanding natural landscapes and outstanding natural features;
(m) riparian margins;
(n) the location and use of infrastructure;
(o) temporary or permanent nature of any adverse effect;
(p) traffic and noise effects;
(q) time of year earthworks will be carried out and duration of the activity; and
(r) impact on visual and amenity values.

As virtually all of the above criteria are similar to the Operative District Plans earthworks criteria, combined with the fact that earthworks have been assessed extensively in both Section 6 of this report and in the accompanying geotechnical report in Appendix D, these criteria will not be assessed here again.

7.3 Objectives and Policies

7.3.1 Far North District Plan Operative Plan- Objectives and Policies

7.3.2 The relevant Objectives and Policies from the Operative Plan in relation to the site and the proposal are listed below along with commentary as to their consistency, compliance and relevance:

10 Coastal Environment

10.3 OBJECTIVES
10.3.1 To manage coastal areas in a manner that avoids adverse effects from subdivision, use and development. Where it is not practicable to avoid adverse effects from subdivision use or development, but it is appropriate for the development to proceed, adverse effects of subdivision use or development should be remedied or mitigated.

10.3.2 To preserve and, where appropriate in relation to other objectives, to restore, rehabilitate protect, or enhance:

(a) the natural character of the coastline and coastal environment;

(b) areas of significant indigenous vegetation and significant habitats of indigenous fauna;

(c) outstanding landscapes and natural features;

(d) the open space and amenity values of the coastal environment;

(e) water quality and soil conservation (insofar as it is within the jurisdiction of the Council).

10.3.3 To engage effectively with Maori to ensure that their relationship with their culture and traditions and taonga is identified, recognised, and provided for.

The above objectives would have all have been covered during the approval of the areas original subdivision, when deciding on the location and approval of the property building platform. The proposed new dwelling on the subject site is considered to be in line with these objects as well.

10.3.4 To maintain and enhance public access to and along the coast whilst ensuring that such access does not adversely affect the natural and physical resources of the coastal environment, including Maori cultural values, and public health and safety.

This is not applicable to the application's proposal.

10.3.5 To secure future public access to and along the coast, lakes and rivers (including access for Maori) through the development process and specifically in accordance with the Esplanade Priority Areas mapped in the District Plan.

The applications proposal is not in conflict with this.

10.3.6 To minimize adverse effects from activities in the coastal environment that cross the coastal marine area boundary.

This is not applicable to the application's proposal.

10.3.7 To avoid, remedy or mitigate adverse effects on the environment through the provision of adequate land-based services for mooring areas, boat ramps and other marine facilities.

This is not applicable to the application's proposal.

10.3.8 To ensure provision of sufficient water storage to meet the needs of coastal communities all year round.

10.3.9 To facilitate the sustainable management of natural and physical resources in an integrated way to achieve superior outcomes to more traditional forms of subdivision, use and development through management plans and integrated development.

The proposed new dwelling is not in conflict with the above two objectives.

10.4 POLICIES

10.4.1 That the Council only allows appropriate subdivision, use and development in the coastal environment. Appropriate subdivision, use and development is that where the activity generally:

- *(a) recognises and provides for those features and elements that contribute to the natural character of an area that may require preservation, restoration or enhancement; and*
- *(b) is in a location and of a scale and design that minimises adverse effects on the natural character of the coastal environment; and*
- *(c) has adequate services provided in a manner that minimises adverse effects on the coastal environment and does not adversely affect the safety and efficiency of the roading network; and*

(d) *avoids, as far as is practicable, adverse effects which are more than minor on heritage features, outstanding landscapes, cultural values, significant indigenous vegetation and significant habitats of indigenous fauna, amenity values of public land and waters and the natural functions and systems of the coastal environment; and*

(e) *promotes the protection, and where appropriate restoration and enhancement, of areas of significant indigenous vegetation and significant habitats of indigenous fauna; and*

(f) *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*

(g) *where appropriate, provides for and, where possible, enhances public access to and along the coastal marine area; and*

(h) *gives effect to the New Zealand Coastal Policy Statement and the Regional Policy Statement for Northland.*

10.4.2 That sprawling or sporadic subdivision and development in the coastal environment be avoided through the consolidation of subdivision and development as far as practicable, within or adjoining built up areas, to the extent that this is consistent with the other objectives and policies of the Plan.

10.4.3 That the ecological values of significant coastal indigenous vegetation and significant habitats are maintained in any subdivision, use or development in the coastal environment.

10.4.4 That public access to and along the coast be provided, where it is compatible with the preservation of the natural character and amenity, cultural, heritage and spiritual values of the coastal environment, and avoids adverse effects in erosion prone areas.

10.4.5 That access by tangata whenua to ancestral lands, sites of significance to Maori, maahinga mataitai, taiapure and kaimoana areas in the coastal marine area be provided for in the development and ongoing management of subdivision and land use proposals and in the development and administration of the rules of the Plan and by non-regulatory methods. Refer Chapter 2, and in particular Section 2.5, and Council's "Tangata Whenua Values and Perspectives (2004)".

10.4.6 That activities and innovative development including subdivision, which provide superior outcomes and which permanently protect, rehabilitate and/or enhance the natural character of the coastal environment, particularly through the establishment and ongoing management of indigenous coastal vegetation and habitats, will be encouraged by the Council.

10.4.7 To ensure the adverse effects of land-based activities associated with maritime facilities including mooring areas and boat ramps are avoided, remedied or mitigated through the provision of adequate services, including where appropriate:

(a) parking;

(b) rubbish disposal;

(c) waste disposal;

(d) dinghy racks.

10.4.8 That development avoids, remedies or mitigates adverse effects on the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.

10.4.9 That development avoids, where practicable, areas where natural hazards could adversely affect that development and/or could pose a risk to the health and safety of people.

10.4.10 To take into account the need for a year-round water supply, whether this involves reticulation or on-site storage, when considering applications for subdivision, use and development.

10.4.11 To promote land use practices that 33inimize erosion and sediment run-off, and storm water and waste water from catchments that have the potential to enter the coastal marine area.

10.4.12 That the adverse effects of development on the natural character and amenity values of the coastal environment will be minimized through:

(a) the siting of buildings relative to the skyline, ridges, headlands and natural features;

(b) the number of buildings and intensity of development;

(c) the colour and reflectivity of buildings;

(d) the landscaping (including planting) of the site;

(e) the location and design of vehicle access, manoeuvring and parking areas

The proposed new dwelling is not considered to be in conflict with any of the above policies from 10.4.1 to 10.4.12.

10.6.3 OBJECTIVES
These objectives supplement those set out in ***Section 10.3****.*

10.6.3.1 To provide for appropriate subdivision, use and development consistent with the need to preserve its natural character.

10.6.3.2 To preserve the natural character of the coastal environment and protect it from inappropriate subdivision, use and development.

10.6.3.3 To manage the use of natural and physical resources (excluding minerals) in the general coastal area to meet the reasonably foreseeable needs of future generations.

The proposed dwelling in this consent application is not considered to be in conflict with any of the above Objectives for the underlying zone.

10.6.4 POLICIES
These policies supplement those set out in ***Section 10.4****.*

10.6.4.1 That a wide range of activities be permitted in the General Coastal Zone, where their effects are compatible with the preservation of the natural character of the coastal environment.

10.6.4.2 That the visual and landscape qualities of the coastal environment in be protected from inappropriate subdivision, use and development.

10.6.4.3 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the zone in regards to s6 matters, and 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.*

10.6.4.4 That controls be imposed to ensure that the potentially adverse effects of activities are avoided, remedied or mitigated as far as practicable.

10.6.4.5 Maori are significant land owners in the General Coastal Zone and therefore activities in the zone should recognise and provide 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.

10.6.4.6 The design, form, location and siting of earthworks shall have regard to the natural character of the landscape including terrain, landforms and indigenous vegetation and shall avoid, remedy or mitigate adverse effects on those features.

The proposed dwelling in this consent application is considered to be consistent, and not in conflict, with the above Policies for the underlying zone.

12.1.3 Objectives

12.1.3.1 To protect outstanding landscapes and natural features from inappropriate, subdivision use and development.

12.1.3.2 To protect the scientific and amenity values of outstanding natural features.

12.1.3.3 To recognise and provide for the distinctiveness, natural diversity and complexity of landscapes as far as practicable including the complexity found locally within landscapes and the diversity of landscapes across the District.

12.1.3.4 To avoid adverse effects and to encourage positive effects resulting from land use, subdivision or development in outstanding landscapes and natural features and Maori cultural values associated with landscapes.

The application's proposal is for a new-build dwelling on the subject site on an already approved designated building platform on the property. The applications proposal is considered to be consistent and no in conflict with the above Objectives.

12.1.4 Policies

12.1.4.1 That both positive and adverse effects of development on outstanding natural features and landscapes be taken into account when assessing applications for resource consent.

12.1.4.2 That activities avoid, remedy or mitigate significant adverse effects on both the natural and the cultural values and elements which make up the distinctive character of outstanding natural features and landscapes.

12.1.4.3 That the cumulative effect of changes to the character of Outstanding Landscapes be taken into account in assessing applications for resource consent.

12.1.4.4 That the visibility of Outstanding Landscape Features, when viewed from public places, be taken into account in assessing applications for resource consent.

12.1.4.5 That the adverse visual effect of built development on outstanding landscapes and ridgelines be avoided, remedied or mitigated.

12.1.4.6 That activities avoid or mitigate adverse effects on the scientific and amenity values associated with outstanding natural features.

12.1.4.7 That the diversity of outstanding landscapes at a District-wide and local level be maintained and enhanced where practicable.

12.1.4.8 That the trend is towards the enhancement rather than the deterioration of landscape values, including the encouragement of the restoration of degraded landscapes.

12.1.4.9 That the high value of indigenous vegetation to Outstanding Landscapes be taken into account when assessing applications for resource consents.

12.1.4.10 That landscape values be protected by encouraging development that takes in account:

(a) the rarity or value of the landscape and/or landscape features;

(b) the visibility of the development;

(c) important views as seen from public vantage points on a public road, public reserve, the foreshore and the coastal marine area;

(d) the desirability of avoiding adverse effects on the elements that contribute to the distinctive character of the coastal landscapes, especially outstanding landscapes and natural features, ridges and headlands or those features that have significant amenity value;

(e) the contribution of natural patterns, composition and extensive cover of indigenous vegetation to landscape values;

(f) Maori cultural values associated with landscapes;

(g) the importance of the activity in enabling people and communities to provide for their social, economic and cultural well-being.

The applications proposal is considered to be consistent and no in conflict with the above Policies.

12.3 Soils and Minerals
12.3.3 OBJECTIVES
12.3.3.1 To achieve an integrated approach to the responsibilities of the Northland Regional Council and Far North District Council in respect to the management of adverse effects arising from soil excavation and filling, and minerals extraction.

12.3.3.2 To maintain the life supporting capacity of the soils of the District.

12.3.3.3 To avoid, remedy or mitigate adverse effects associated with soil excavation or filling.

12.3.3.4 To enable the efficient extraction of minerals whilst avoiding, remedying or mitigating any adverse environmental effects that may arise from this activity

12.3.4 POLICIES
12.3.4.1 That the adverse effects of soil erosion are avoided, remedied or mitigated.

12.3.4.2 That the development of buildings or impermeable surfaces in rural areas be managed so as to minimise adverse effects on the life supporting capacity of the soil.

12.3.4.3 That where practicable, activities associated with soil and mineral extraction be located away from areas where that activity would pose a significant risk of adverse effects to the environment and/or to human health. Such areas may include those where:

(a) there are people living in close proximity to the site or land in the vicinity of the site is zoned Residential, Rural Living, Coastal Residential or Coastal Living;

(b) there are significant ecological, landscape, cultural, spiritual or heritage values;

(c) there is a potential for adverse effects on lakes, rivers, wetlands and the coastline;

(d) natural hazards may pose unacceptable risks.

12.3.4.4 That soil excavation and filling, and mineral extraction activities be designed, constructed and operated to avoid, remedy or mitigate adverse effects on people and the environment.

12.3.4.5 That soil conservation be promoted.

12.3.4.6 That mining tailings that contain toxic or bio-accumulative chemicals are contained in such a way that adverse effects on the environment are avoided.

12.3.4.7 That applications for discretionary activity consent involving mining and quarrying be accompanied by a Development Plan.

12.3.4.8 That as part of a Development Plan rehabilitation programmes for areas no longer capable of being actively mined or quarried may be required.

The proposed new dwelling is considered consistent, and not in conflict, with the above Objectives and Policies.

12.4.3 OBJECTIVES

12.4.3.1 To reduce the threat of natural hazards to life, property and the environment, thereby to promote the well being of the community.

12.4.3.2 To ensure that development does not induce natural hazards or exacerbate the effects of natural hazards.

12.4.3.3 To ensure that natural hazard protection works do not have adverse effects on the environment.

12.4.3.4 To ensure that the role in hazard mitigation played by natural features is recognised and protected.

12.4.3.5 To improve public awareness of natural hazards as a means of helping people to avoid them.

12.4.3.6 To take into account reasonably foreseeable changes in the nature and location of natural hazards.

12.4.3.7 To avoid fire risk arising from the location of residential units in close proximity to trees, or in areas not near fire fighting services.

12.4.4 POLICIES

12.4.4.1 That earthworks and the erection of structures not be undertaken in areas where there is a significant potential for natural hazards unless they can be carried out in such a way so as to avoid being adversely affected by the natural hazards, and can avoid exacerbating natural hazards.

12.4.4.2 That the natural character of features, such as beaches, sand dunes, mangrove areas, wetlands and vegetation, which have the capacity to protect land values and assets from natural coastal hazards, is protected and enhanced.

12.4.4.3 That protection works for existing development be allowed only where they are the best practicable option compatible with sustainable management of the environment.

12.4.4.4 That the sea level rise, as predicted by the Intergovernmental Panel of Climate Change or Royal Society of NZ, be taken into account when assessing development in areas potentially affected.

12.4.4.5 That information on known natural hazards be made available in order that the public can make informed resource management decisions.

12.4.4.6 That the adverse effects on people, property and the environment from coastal hazards in Coastal Hazard Areas, as identified by the Northland Regional Council, are avoided.

12.4.4.7 That the risk to adjoining vegetation and properties arising from fires be avoided.

12.4.4.8 That the location, intensity, design and type of new coastal subdivision, use and development be controlled so that the need for hazard protection works is avoided or minimised.

12.4.4.9That the role of riparian margins in the mitigation of the effects of natural hazards is recognised and that the continuing ability of riparian margins to perform this role be assured.

The proposed new dwelling is considered consistent, and not in conflict, with the above Objectives and Policies with regards to natural hazards and fire risk. Although there are flooding hazard overlays on the site, these are over a tiny portion of the property, well away from the proposed new dwelling being applied for in this resource consent application.

7.3.3 Far North District Plan Proposed Plan- Objectives and Policies

7.3.4 The relevant Objectives and Policies from the Proposed District Plan in relation to the site and the proposal are listed below along with comment as to their consistency, compliance and relevance:

Cultural Prosperity - Objectives

SD-CP-O1
Te Tiriti o Waitangi partnerships support iwi and hapū to deliver on the social, economic, environmental and cultural wellbeing outcomes for tangata whenua.

SD-CP-O2
Te ao māori, tikanga māori and tangata whenua as kaitiaki, embedded in and integral to decision making.

SD-CP-O3
The District's diverse cultures and communities are celebrated and cultural heritage recognised.

SD-CP-O4
The District's historic heritage is identified and managed to ensure its long-term protection for current and future generations.

SD-CP-O5
A district wide approach to the impacts of climate change and natural hazards, which includes a te ao māori decision making framework, developed with iwi and hapū.

The applications proposal is not in conflict with the above Objectives.

Infrastructure and Electricity - Objectives

SD-IE-O1
The benefits of infrastructure and renewable electricity generation activities across the district are recognized and provided for, while ensuring their adverse effects are well managed.

SD-IE-O2
Infrastructure and renewable electricity generation activities are protected from incompatible land use, subdivision and development that may compromise their effective operation, maintenance and upgrading.

The applications proposal is not considered to be in conflict with the above Objectives.

Social Prosperity - Objectives

SD-SP-O1
Community wellbeing is heightened by a sense of place.

SD-SP-O2
Development of initiatives that will support the wellbeing of Tangata Whenua in partnership with Iwi and hapū.

SD-SP-O3
Encourage opportunities for fulfilment of the community's cultural, social, environmental, and economic wellbeing.

SD-CP-O4
Promotion of communities and places that will meet the needs for not only the present population but future generations which are adaptive to climate change.

These are not technically applicable to this applications proposal – this is more relevant to a subdivision – however this applications proposal is not in conflict with these Objectives.

Economic Prosperity - Objectives

SD-EP-O1
A high-earning diverse local economy which is sustainable and resilient to economic downturns, with the District's Māori economy making a significant contribution.

SD-EP-O2
Existing industries and enterprises are supported and continue to prosper under volatile and changing economic conditions.

SD-EP-O3
Development and retention of highly motivated, educated and skilled people in the District.

SD-EP-O4
People, businesses and places are connected digitally and through integrated transport networks.

SD-EP-O5
A district economy that is responsive, resilient and adaptive to the financial costs of a changing climate.

The applications proposal is consistent, and not in conflict with, the above Objectives.

Urban Form and Development - Objectives

SD-UFD-O1
The wellbeing of people who live in and visit towns in the Far North is considered first when it comes to planning places and spaces.

SD-UFD-O2
Urban growth and development consolidated around existing reticulated networks within town centres, supporting a more compact urban form, affordability and providing for a mix of housing typologies.

SD-UFD-O3
Adequate development infrastructure in place or planned to meet the anticipated demands for housing and business activities.

SD-UFD-O4
Urban growth and development is resilient and adaptive to the impacts from natural hazards or climate change.

The applications proposal is consistent, and not in conflict with, the above Objectives.

Infrastructure and Electricity - Objectives

SD-IE-O1
The benefits of infrastructure and renewable electricity generation activities across the district are recognised and provided for, while ensuring their adverse effects are well managed.

SD-IE-O2
Infrastructure and renewable electricity generation activities are protected from incompatible land use, subdivision and development that may compromise their effective operation, maintenance and upgrading.

The applications proposal is consistent, and not in conflict with, the above Objectives.

Rural Environment - Objectives

SD-RE-O1
Primary production activities are able to operate efficiently and effectively and the contribution they make to the economic and social well-being and prosperity of the district is recognised.

SD-RE-O2
Protection of highly productive land from inappropriate development to ensure its production potential for generations to come.

The applications proposal is consistent, and not in conflict with, the above Objectives (as the subject site was created under the Operative plan and was not zoned rural).

Natural Environment - Objectives

SD-EP-O1
A culture of stewardship in the community that increases the District's biodiversity and environmental sustainability.

SD-EP-O2
Collaborative relationships with iwi and hapū in order to support tangata whenua to carry out their obligation and responsibility as kaitiaki.

SD-EP-O3
Active management of ecosystems to protect, maintain and increase indigenous biodiversity for future generations.

SD-EP-O4
Land use practices reverse climate change by enabling carbon storage and reducing carbon emissions.

SD-EP-O5
The natural character of the coastal environment and outstanding natural features and landscapes are managed to ensure their long-term protection for future generations.

SD-EP-O6
Areas of significant indigenous vegetation and significant habitats of indigenous fauna and protected for current and future generations.

The applications proposal is consistent, and not in conflict with, the above Objectives.

Earthworks - Objectives

EW-O1
Earthworks are enabled where they are required to facilitate the efficient subdivision and development of land, while managing adverse effects on waterbodies, coastal marine area, public safety, surrounding land and infrastructure.

EW-O2
Earthworks are appropriately designed, located and managed to protect historical and cultural values, natural environmental values, preserve amenity and safeguard the life-supporting capacity of soils.

EW-O3
Earthworks are undertaken in a manner which does not compromise the stability of land, infrastructure and public safety.

The applications proposal is consistent, and not in conflict with, the above Objectives, as demonstrated earlier on this report.

Policies

EW-P1
Enable earthworks necessary to provide for the District's social, economic and cultural well-being, and their health and safety where they provide for:

- *urban land uses and development within urban zones;*
- *rural land uses and development including, farm tracks, land drainage, and other farming activities within the Rural zones;*
- *conservation and recreation activities;*
- *land drainage and flood control works; and*
- *installation, upgrade and maintenance of infrastructure.*

The applications proposal is considered consistent, and not in conflict with, the above Policy.

EW-P2
Ensure earthworks are managed, when it has the potential to:

- *create new or exacerbate existing natural hazards, including but not limited to flooding, instability, and coastal hazards;*
- *result in adverse effects on the amenity, characteristics and qualities of outstanding natural landscapes, outstanding natural features, historic heritage, cultural values, indigenous biodiversity and significant natural areas and features; and*
- *adversely affect waterbodies and the coastal marine area due to inadequate setbacks.*

The applications proposal is consistent, and not in conflict with, the above Policy.

EW-P3
Ensure earthworks are located and designed appropriately to manage the effects of the activity by:

- *controlling maximum depth and height and maximum area or volume of earthworks;*
- *requiring appropriate setbacks are maintained from adjoining property boundaries, waterbodies and the coastal environment;*
- *managing the location and design of infrastructure;*
- *managing impacts on natural drainage patterns and overland flow paths; and*
- *controlling the movement of dust and sediment beyond the area of development to avoid:*
- *nuisance effects and/or amenity effects on surrounding sites, or*
- *silt and sediment entering stormwater systems or waterbodies and the coastal marine area.*

The applications proposal is consistent, and not in conflict with, the above Policy.

EW-P4
Require earthworks to be of a type, scale and form that is appropriate for the location having regards to the effects of the activity, and:

- *existing site constraints, opportunities and specific engineering requirements;*
- *the impact on existing natural landforms, features, historic heritage and indigenous biodiversity;*
- *compatibility with the visual amenity and character values of the area;*
- *changes in the natural landform that will lead to instability, erosion and scarring;*
- *impacts on natural drainage patterns and overland flow paths;*
- *using materials for retaining structures that are compatible with the visual amenity and the characteristics and qualities of the surrounding area;*
- *minimising adverse visual effects associated with any exposed cut faces or retaining structures, including with the use of screening, landscaping and/or planting; and*
- *loss of flood storage within flood hazard areas.*

The applications proposal is consistent, and not in conflict, with the above Policy for the reasons outlined earlier in this report.

EW-P5
Manage effects on historic heritage and cultural values that may be discovered when undertaking earthworks by:

- *requiring a protocol for the accidental discovery of archaeology, kōiwi and artefacts of Māori origin; and*
- *undertaking appropriate actions in accordance with mātauranga and tikanga Māori when managing effects on cultural values.*

The applications proposal is consistent, and not in conflict ,with the above Policy. The addition of an accidental discovery protocol Advice Note on any consent decision issued for this proposal (if deemed necessary) can ensure that this Policy is achieved.

EW-P6
Require that all earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings or structures.

The applications proposal is consistent, and not in conflict with, the above Policy.

EW-P7
Ensure all earthworks associated with land development are designed and assessed in a coordinated and integrated manner at the time of subdivision, by:

- *controlling earthworks associated with subdivision, including for the purpose of site preparation, creating roads or access to/within the subdivision, and for the provision of infrastructure; and*
- *considering the appropriateness of earthworks in conjunction with site design and layout of future subdivision and/or development of land, particularly for future infill or greenfield subdivision.*

This application is not for a subdivision so this Policy is not applicable.

EW-P8
Manage earthworks 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:

- *the location, scale and volume;*
- *depth and height of cut and fill;*
- *the nature of filling material and whether it is compacted;*
- *the extent of exposed surfaces or stockpiling of fill;*
- *erosion, dust and sediment controls;*
- *the risks of natural hazards, particularly flood events;*
- *stormwater controls;*
- *flood storage, overland flow paths and drainage patterns;*
- *impacts on natural coastal processes;*
- *the stability of land, buildings and infrastructure;*
- *visual amenity, natural character and landscape values,*
- *historic heritage values, and whether any assessment or advice from a suitably qualified and experienced heritage expert is required;*
- *any historical, spritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6;*
- *the life-supporting capacity of soils;*
- *the extent of indigenous biodiversity clearance and its effect on biodiversity values;*
- *outstanding natural character, outstanding natural landscapes and outstanding natural features;*
- *riparian margins;*
- *the location, operational and functional needs and use of infrastructure;*
- *temporary or permanent nature of any adverse effect; and*
- *traffic and noise effects.*

The applications proposal is consistent, and not in conflict, with the above Policy.

Rural Production Zone

Objectives

RPROZ-O1
The Rural Production zone is managed to ensure its availability for primary production activities and its long-term protection for current and future generations.

RPROZ-O2
The Rural Production zone is used for primary production activities, ancillary activities that support primary production and other compatible activities that have a functional need to be in a rural environment.

RPROZ-O3
Land use and subdivision in the Rural Production zone:

(a) protects highly productive land from sterilisation and enables it to be used for more productive forms of primary production;
(b) protects primary production activities from reverse sensitivity effects that may constrain their effective and efficient operation;
(c) does not compromise the use of land for farming activities, particularly on highly productive land;
(d) does not exacerbate any natural hazards; and
(e) is able to be serviced by on-site infrastructure.

RPROZ-O4
The rural character and amenity associated with a rural working environment is maintained.

The applications proposal is consistent, and not in conflict, with the above Objectives.

Policies

RPROZ-P1
Enable primary production activities, provided they internalise adverse effects onsite where practicable, while recognising that typical adverse effects associated with primary production should be anticipated and accepted within the Rural Production zone.

The applications proposal is consistent, and not in conflict with, the above Policy.

RPROZ-P2
Ensure the Rural Production zone provides for activities that require a rural location by:
(a) enabling primary production activities as the predominant land use;
(b) enabling a range of compatible activities that support primary production activities, including ancillary activities, rural produce manufacturing, rural produce retail, visitor accommodation and home businesses.

The applications proposal is consistent, and not in conflict, with the above Policy.

RPROZ-P3
Manage the establishment, design and location of new sensitive activities and other non-productive activities in the Rural Production Zone to avoid where possible, or otherwise mitigate, reverse sensitivity effects on primary production activities.

The applications proposal is consistent, and not in conflict, with the above Policy.

RPROZ-P4
Land use and subdivision activities are undertaken in a manner that maintains or enhances the rural character and amenity of the Rural Production zone, which includes:
(a) a predominance of primary production activities;
(b) low density development with generally low site coverage of buildings or structures;
(c) typical adverse effects such as odour, noise and dust associated with a rural working environment; and
(d) a diverse range of rural environments, rural character and amenity values throughout the District.

The applications proposal is consistent, and not in conflict, with the above Policy.

RPROZ-P5
Avoid land use that:
(a) is incompatible with the purpose, character and amenity of the Rural Production zone;
(b) does not have a functional need to locate in the Rural Production zone and is more appropriately located in another zone;
(c) would result in the loss of productive capacity of highly productive land;
(d) would exacerbate natural hazards; and
(e) cannot provide appropriate on-site infrastructure.

The applications proposal is consistent, and not in conflict with the above Policy.

RPROZ-P6
Avoid subdivision that:
(a) results in the loss of highly productive land for use by farming activities;
(b) fragments land into parcel sizes that are no longer able to support farming activities, taking into account:
- *the type of farming proposed; and*
- *whether smaller land parcels can support more productive forms of farming due to the presence of highly productive land.*

(c) *provides for rural lifestyle living unless there is an environmental benefit**.***

This is not applicable to the application's proposal.

RPROZ-P7
Manage land use and subdivision to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:
(a) whether the proposal will increase production potential in the zone;
(b) whether the activity relies on the productive nature of the soil;
(c) consistency with the scale and character of the rural environment;
(d) location, scale and design of buildings or structures;

(e) for subdivision or non-primary production activities:

- *scale and compatibility with rural activities;*
- *potential reverse sensitivity effects on primary production activities and existing infrastructure;*
- *the potential for loss of highly productive land, land sterilisation or fragmentation*

(f) at zone interfaces:

- *any setbacks, fencing, screening or landscaping required to address potential conflicts;*
- *the extent to which adverse effects on adjoining or surrounding sites are mitigated and internalised within the site as far as practicable;*

(g) the capacity of the site to cater for on-site infrastructure associated with the proposed activity, including whether the site has access to a water source such as an irrigation network supply, dam or aquifer;

(h) the adequacy of roading infrastructure to service the proposed activity;

(i) Any adverse effects on historic heritage and cultural values, natural features and landscapes or indigenous biodiversity;

(j) Any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

The applications proposal is consistent, and not in conflict, with the above Policy.

7.3.5 The proposal has also been assessed against the relevant Objectives and Policies to the site from both the Operative and Proposed District Plans, and the proposal is not considered to be in conflict with either of these two planning documents for the District.

7.3.6 After reviewing the relevant zones assessment criteria and Objectives and Policies from both of the District Plans, it is considered that:

- The actual and potential effects of the proposal are acceptable.
- The proposal is consistent with the objectives and policies of the District Plans, rule statements, as well as the expected environmental outcomes.
- There are no other matters that are considered relevant to this proposal.
- Overall, the proposal meets the purpose and principles of the RMA being sustainable management of natural and physical resources.

7.4 Part 2 Matters

7.4.1 Section 104 of the Act is subject to Part 2 of the Act:

- Section 5 of the Act outlines the Act's purpose, the basic principle of which is sustainable management – It is considered that the proposed new residential dwelling is in line with this section.
- Section 6 of the Act outlines matters of national importance - it is considered that none of sub sections (a) to (f) are relevant to this case.
- Section 7 outlines the other matters for consideration.

- Section 8 concerns the principles of the Treaty of Waitangi.

7.4.2 Overall it is considered that the proposed development as outlined in this application is not in conflict with, and therefore satisfies, all of the above sections of Part 2 of the Act.

8 Conclusion

8.1 This report has outlined the details of the proposed activity for a new residential dwelling on a site at 2791 State Highway 10, Mangonui.

8.2 It has been demonstrated that any effects of granting the resource consent on the environment will be acceptable, subject to conditions relating to compliance with approved plans and parameters in which the activity can be undertaken.

8.3 This report has considered the proposal in terms of the relevant planning instruments, particularly the Far North District Plan's (both Operative and Proposed), and found that the proposal will be consistent with all relevant objectives and policies.

8.4 Accordingly, it is considered that the purpose of the Act will be achieved by granting a non - notified consent to the proposal as outlined in this report.

Appendix A

Record of Title & Interests

Appendix B

Development Plans

Appendix C

Site Suitability Report

Appendix D

Geotechnical Report

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**1185380**
Land Registration District	**North Auckland**
Date Issued	29 January 2025

Prior References
NA82B/35

Estate	Fee Simple
Area	5.9650 hectares more or less
Legal Description	Lot 2 Deposited Plan 603728
Registered Owners	

Sean Broadhead and Alicia Kerryanne Shepherd

Interests

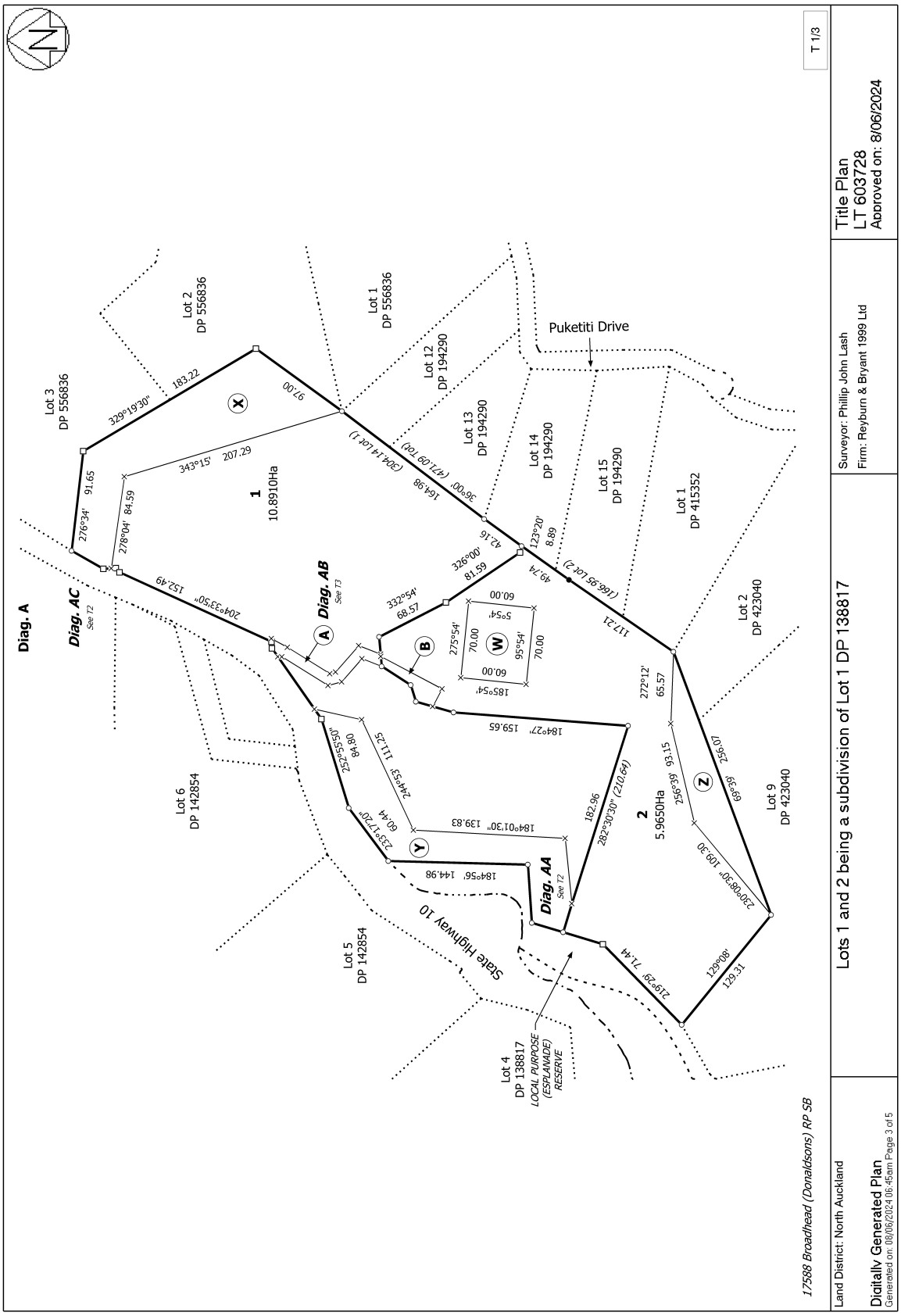
Subject to Section 168A Coal Mines Act 1925

Subject to a right of way over part marked B on DP 603728 created by Easement Instrument 13175374.2 - 29.1.2025 at 8:28 am

Appurtenant hereto is a right of way, right to drain water, right to convey electricity and telecommunications created by Easement Instrument 13175374.2 - 29.1.2025 at 8:28 am

The easements created by Easement Instrument 13175374.2 are subject to Section 243 (a) Resource Management Act 1991

13175374.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 29.1.2025 at 8:28 am


Lot 2 DP 556836
Lot 1 DP 556836
Puketiti Drive
Lot 3 DP 556836
Lot 12 DP 194290
Lot 13 DP 194290
Lot 14 DP 194290
Lot 15 DP 194290
Lot 1 DP 415352
Lot 2 DP 423040
Lot 9 DP 423040
Lot 6 DP 142854
Lot 5 DP 142854
Lot 4 DP 138817
LOCAL PURPOSE (ESPLANADE) RESERVE
State Highway 10
Diag. A
Diag. AC
See T2
Diag. AB
See T3
Diag. AA
See T2
1
10.8910Ha
2
5.9650Ha
329°19'30"
183.22
97.00
343°15'
207.29
276°34'
91.65
278°04'
84.59
204°33'50"
152.49
(204.14 Lot 1)
(471.09 Tod)
164.98
36°00'
42.16
123°20'
8.89
49.74
(166.95 Lot 2)
117.21
326°00'
81.59
332°54'
68.57
60.00
S 5°54'
275°54'
70.00
W
95°54'
70.00
185°54'
60.00
184°27'
159.65
252°55'50"
84.80
244°59'
111.25
184°01'30"
139.83
60.44
235°17'20"
184°56'
144.98
182.96
282°30'30"
(210.64)
272°12'
65.57
256°39'
93.15
69°39'
256.01
230°08'30"
109.30
219°29'
71.44
129°08'
129.31
T 1/3
17588 Broadhead (Donaldsons) RP 5B
Land District: North Auckland
Digitally Generated Plan
Generated on: 08/06/2024 06:45am Page 3 of 5
Lots 1 and 2 being a subdivision of Lot 1 DP 138817
Surveyor: Phillip John Lash
Firm: Reyburn & Bryant 1999 Ltd
Title Plan
LT 603728
Approved on: 8/06/2024

View Instrument Details

Instrument No	13175374.2
Status	Registered
Lodged By	Smith, Louise Annette
Date & Time Lodged	29 Jan 2025 08:28
Instrument Type	Easement Instrument

Affected Records of Title	**Land District**
1185379	North Auckland
1185380	North Auckland

Annexure Schedule	Contains 2 Pages

Grantor Certifications

I certify that I have the authority to act for the Grantor and that the party has the legal capacity to authorise me to lodge this instrument ☑

I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument ☑

I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply ☑

I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period ☑

Signature

Signed by Sarah Emily Jury as Grantor Representative on 16/01/2025 04:31 PM

Grantee Certifications

I certify that I have the authority to act for the Grantee and that the party has the legal capacity to authorise me to lodge this instrument ☑

I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument ☑

I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply ☑

I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period ☑

Signature

Signed by Sarah Emily Jury as Grantee Representative on 16/01/2025 04:31 PM

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

Form 22

Easement instrument to grant easement or *profit à prendre*

(Section 109 Land Transfer Act 2017)

Grantor

LYNDA NORMA BROADHEAD, DAVID JOHN BROADHEAD AND SPICERS TRUSTEE COMPANY (2005) LIMITED

Grantee

LYNDA NORMA BROADHEAD, DAVID JOHN BROADHEAD AND SPICERS TRUSTEE COMPANY (2005) LIMITED

Grant of Easement or *Profit à prendre*

The Grantor being the registered owner of the burdened land set out in Schedule A **grants to the Grantee** (and, if so stated, in gross) the easement(s) or *profit(s) à prendre* set out in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s)

Schedule A *Continue in additional Annexure Schedule, if required*

Purpose of Easement, or *profit*	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Right of way, right to drain water and right to convey electricity and telecommunications	A on DP 603728	Lot 1 DP 603728 [1185379]	Lot 2 DP 603728 [1185380]
Right of way	B on DP 603728	Lot 2 DP 603728 [1185380]	Lot 1 DP 603728 [1185379]

Easements or *profits à prendre* rights and powers (including terms, covenants and conditions)

Delete phrases in [ ] and insert memorandum number as required; continue in additional Annexure Schedule, if required

Unless otherwise provided below, the rights and powers implied in specified classes of easement are those prescribed by the Land Transfer Regulations 2018 ~~and/or Schedule 5 of the Property Law Act 2007~~

~~The implied rights and powers are hereby~~ ~~**[varied] [negatived] [added to]**~~ ~~or~~ ~~**[substituted]**~~ ~~by:~~

~~[Memorandum number , registered under section 209 of the Land Transfer Act 2017]~~

~~[the provisions set out in Annexure Schedule]~~

View Instrument Details

Instrument No	13175374.3
Status	Registered
Lodged By	Smith, Louise Annette
Date & Time Lodged	29 Jan 2025 08:28
Instrument Type	Consent Notice under s221(4)(a) Resource Management Act 1991

Affected Records of Title	**Land District**
1185379	North Auckland
1185380	North Auckland

Annexure Schedule	Contains 2 Pages

Signature

Signed by Sarah Emily Jury as Territorial Authority Representative on 16/01/2025 04:32 PM

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

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

HE ARA TĀMATA
CREATING GREAT PLACES
Supporting our people

Private Bag 752, Kaikohe 0440, New Zealand
ask.us@fndc.govt.nz
0800 920 029
fndc.govt.nz

THE RESOURCE MANAGEMENT ACT 1991

SECTION 221: CONSENT NOTICE

REGARDING **RC-2220861-RMASUB**
Being the Subdivision of LOT 1 DP 138817
North Auckland Registry

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

SCHEDULE

Lot 1 DP 603728

a) The site is identified as being within a kiwi present zone. Any cats and/or dogs kept onsite must be kept inside and/or tied up at night to reduce the risk of predation of North Island brown kiwi by domestic cats and dogs.

b) Area "X" and "Z" is for the purpose of bush protection and shall not be damaged, modified, or removed.

c) The area shown as "Y" is for the purpose of wetland protection and shall not be damaged, modified, or removed.

d) Management of activities on Proposed Lot 1, with respect to the natural wetland areas (Covenant Area "Y") is to be undertaken so that the natural range of water levels and the natural ecosystem of plants and animals they support do not change as a result of such activities, except by way of a consent from the Northland Regional Council.

Lots 1 and 2 DP 603728

e) The landowner shall not further increase the impermeable surfaces over the permitted threshold of the net site area, without implementing stormwater management and mitigating measures in accordance with Council's current Engineering Standards. The design shall accommodate for storm events up to and including the 1% annual exceedance probability plus an allowance for climate change and shall be prepared by a Chartered Professional Engineer or suitably qualified person, to the satisfaction of Councils' Development Engineer or delegated representative.

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

HE ARA TĀMATA
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Supporting our people

Private Bag 752, Kaikohe 0440, New Zealand
ask.us@fndc.govt.nz
0800 920 029
fndc.govt.nz

f) Lots 1 and 2 contain Coastal Hazard 1 and 2 areas, wherein there is a potential risk to life, property and the environment due to climate change and natural coastal processes. Any dwellings to be constructed shall be located outside of Coastal and River Flood Zones.

Lot 2 DP 603728

g) In conjunction with the construction of any building requiring a wastewater disposal system within Lot 2, the owner shall obtain a Building Consent and install the wastewater treatment and effluent disposal system as detailed in the report prepared by Kerikeri Drainage and submitted with Resource Consent 2220861.

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

i) Area "W" is a designated building envelope, intended for any habitable building or building structure over 25m^2, but shall not include any buildings that existed prior to the date of issue of this consent.

j) The responsibility for providing both electricity and telecommunication services will remain that of the property owner.

k) The landowner of the lot shall be required at all times to comply with and implement all aspects of the final weed and pest management plan approved under condition 3(f) of RC 2220794-RMASUB.

SIGNED: Mr Tianxu Huang- Authorised Officer
By the FAR NORTH DISTRICT COUNCIL
Under delegated authority:
TEAM LEADER – RESOURCE CONSENTS

DATED at **KERIKERI** this 9th day of October 2024

NEW RESIDENTIAL DWELLING FOR

SEAN BROADHEAD & ALICIA SHEPHERD

	INDEX
A0001	Cover Page
A0002	Presentation
A1001	Overall Site Plan
A1002	Site Plan
A1501	Floor Plan
A2001	Elevations
A2002	Elevations

LOT 2 DP 603728
2791, STATE HIGHWAY 10, MANGONUI

CLIENT CONCEPT APPROVAL

CONCEPT PLAN APPROVED BY CLIENT TO PROCEED TO DETAILED DESIGN.

DATE: _____

SIGNED:_____

NOTE: CHANGES TO PLANS ONCE CONCEPT APPROVAL SIGNED ARE LIABLE TO INCUR ADDITIONAL CHARGES.

Arcline Architecture

ARCLINE ARCHITECTURE LTD.
Offices: Kaitaia | Kerikeri | Whangārei
(Ph): 09 408 2233
(Email): info@arcline.co.nz
(Web): www.arcline.co.nz

CAD CONCEPT
27/05/2025 11:42 AM

CLIENT CONCEPT APPROVAL

CONCEPT PLAN APPROVED BY CLIENT TO PROCEED TO DETAILED DESIGN.

DATE: _____

SIGNED:_____

NOTE: CHANGES TO PLANS ONCE CONCEPT APPROVAL SIGNED ARE LIABLE TO INCUR ADDITIONAL CHARGES.

Arcline Architecture

(Ph): 09 408 2233
(Email): info@arcline.co.nz
(Web): www.arcline.co.nz

COASTAL HOMES
coastal-homes.co.nz

Presentation

SEAN BROADHEAD & ALICIA SHEPHERD

2791, STATE HIGHWAY 10, MANGONUI

Rev No.	Revision	Date

Scale @ A3: NTS

Drawn By MC

Issued: 27/05/2025 11:42 AM

Broadhead Residence CC - 19052025.pln

Sheet No:

A0002

CAD CONCEPT

CLIENT CONCEPT APPROVAL

CONCEPT PLAN APPROVED BY CLIENT TO PROCEED TO DETAILED DESIGN.

DATE: _____

SIGNED:_____

NOTE: CHANGES TO PLANS ONCE CONCEPT APPROVAL SIGNED ARE LIABLE TO INCUR ADDITIONAL CHARGES.

NOTE:
- ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- WORK ONLY TO FIGURED DIMENSIONS, IN THE EVENT OF A DISCREPANCY CONTACT THE DESIGNER
- DO NOT CHANGE ANY DETAILS WITHOUT PRIOR CONSENT FROM THE DESIGNER
- BUILDING CONTRACTOR TO CHECK ALL LEVELS, DIMENSIONS, CONNECTIONS & MANUFACTURERS SPECIFICATIONS BEFORE BEGINNING OR MANUFACTURING ANY WORK TO ENSURE THAT ALL MATERIALS & LABOUR NECESSARY TO COMPLETE THE PROJECT HAS BEEN ALLOWED FOR, WHETHER INFERRED, DRAWN ON PLANS OR NOT.
- LIABILITY WILL NOT BE ACCEPTED BY DESIGNER FOR ANY MATERIALS OR LABOUR NOT SHOWN ON DRAWINGS OR REQUIRED BY COUNCIL OR DURING CONSTRUCTION.
- ALL STANDARDS REFERENCED IN THESE PLANS ARE TO THE CURRENT / LATEST VERSION.

GENERAL SITE WORKS NOTES:
- ALL DIMENSIONS AND LEVELS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- WORK ONLY TO FIGURED DIMENSIONS.
- IN THE EVENT OF A DESCREPANCEY CONTACT THE DESIGNER AS SOON AS POSSIBLE

SITE ACCESS
PROVIDE SAFETY FENCING WHERE ACCESS FROM CHILDREN IS POSSIBLE IN ACCORDANCE WITH NZBC F5.3.3.

EARTHWORKS
- STRIP TOPSOIL, BEFORE BUILDING AND DRIVEWAY AREAS
- ALL CUBIC METERS ARE ESTIMATES. CONTRACTOR TO CONFIRM ON SITE.
- DESIGNER TAKES NO LIABILITY FOR ADDITIONAL WORKS IF VOLUMES CHANGE.
- THE REMOVAL OF TOPSOIL AND/OR ANY SOFT SOILS IS NOT INCLUDED IN CALCULATIONS.
- ALL EARTHWORKS TO COMPLY WITH ACCIDENTAL DISCOVERY PROTOCOL AS PER EARTHWORKS STANDARDS EW-S3 AND EW-S5
- EARTHWORKS TO COMPLY WITH AUCKLAND COUNCIL GUIDANCE DOCUMENT GD005 FOR EROSION.

SILT FENCE
INSTALL TEMPORARY SILT CONTROL FENCE TO DC STANDARDS.

DRIVEWAY:
GRAVEL

SITE PLAN NOTES:

SITE DESCRIPTION

LOT NUMBER:	LOT 2
DP NUMBER:	DP 603728
ADDRESS:	2791, STATE HIGHWAY 10, MANGONUI

SITE ENVIRONMENT

CLIMATE ZONE	BRANZ - 1
EARTHQUAKE ZONE	BRANZ - 1
EXPOSURE ZONE	BRANZ - D
LEE ZONE	BRANZ - NO
WIND ZONE	VH
WIND REGION	BRANZ - A
RAINFALL RANGE	BRANZ - 90-100mm/hr
SNOW ZONE	NO

DISTRICT PLAN COMPLIANCE

PLANNING ZONE	GENERAL COASTAL
BUILDING COVERAGE	
SITE AREA	5.9650 ha (59,650 m²)
MAX. FLOOR AREA PERMITTED:	VISUAL AMENITY - 25m²
PROPOSED DWELLING	116.48m²
PROPOSED COVERED DECK	4.42m²
PROPOSED SHED (SOLAR)	5.00m²
TOTAL	125.90m² (0.21%) **INFRINGEMENT**
BUILDING HEIGHT & HIRB	
MAX. HEIGHT PERMITTED	8.0m
PROPOSED HEIGHT	5.0m **COMPLIES**
HIRB	2m UP, 45 DEGREES IN **COMPLIES**
SETBACK TO BUSH	
GREATER THAN 20m	
DISTANCE TO BUSH MIN 20m -	CLEARED **COMPLIES**
LRV	
30% MAX. LRV	

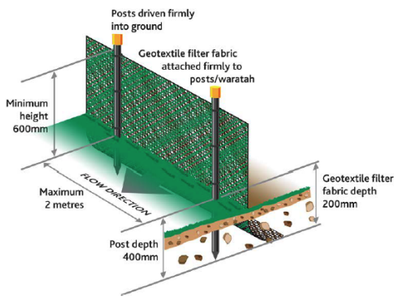
STORMWATER MANAGEMENT

SITE AREA	5.9650 ha (59,650 m²)
TOTAL AREA PERMITTED	5965m² (10%)
PROPOSED ROOF AREA	154.58m²
PROPOSED DRIVE #1	480.00m²
PROPOSED DRIVE #2	220.00m²
TOTAL	854.58m² 1.50% **COMPLIES**

STORMWATER SUMP / CESS PIT

TOTAL SURFACES AREA:	700.00 m²
RAINFALL INTENSITY	BRANZ - 90-100mm/hr
NUMBER OF SUMPS REQUIRED (E1 TYPE2):	2

Proper silt fence installation is critical to its performance. It needs to:
- be installed in a trench 200mm deep by 100mm wide
- have waratahs or posts hammer-staked at least 400mmm deep on the downhill side of the fabric, no more than 2m apart
- be 600mm high above ground, with an additional 200mm of cloth below ground in the trench
- have each end of the fence return up the slope roughly 2m to prevent water going around the edges
- be anchored by backfilling the trench and placing soil on top of the fabric.



EARTHWORKS:

VOLUME PERMITTED:	300m³
SITE CUT m³	1500.00m³
SITE FILL m³	1500.00m³
GROSS CUT/FILL (EST):	3000.00m³ **INFRINGEMENT**
CUT SURFACE AREA	1410.00m²
FILL SURFACE AREA	750.00m²
CUT FILL HEIGHT PERMITTED:	3.0m TOTAL
MAX 1.5m CUT OR FILL AT	
MAX CUT HEIGHT:	2.3m
MAX FILL HEIGHT:	1.5m **INFRINGEMENT**

EARTHWORKS **PERMIT REQUIRED** IF EXCAVATIONS ARE:
>50m2 AREA
>50m3 VOLUME
>0.5m HEIGHT
<3.0m TO BOUNDARY

NOTES:
SHEAR VANE TEST OF FILL AT FOOTING INSPECTION.
SITE BENCHED & FILL APPLIED & SHEEPS FOOT ROLLED @ 150mm LAYERS.

Arcline Architecture
(Ph): 09 408 2233
(Email): info@arcline.co.nz
(Web): www.arcline.co.nz

COASTAL HOMES coastal-homes.co.nz

Overall Site Plan

SEAN BROADHEAD & ALICIA SHEPHERD

2791, STATE HIGHWAY 10, MANGONUI

Rev No.	Revision	Date

Scale @ A3: 1:1750
Drawn By MC
Issued: 27/05/2025 11:42 AM
Broadhead Residence CC - 19052025.pln

Sheet No: **A1001**
CAD CONCEPT
3 OF 69

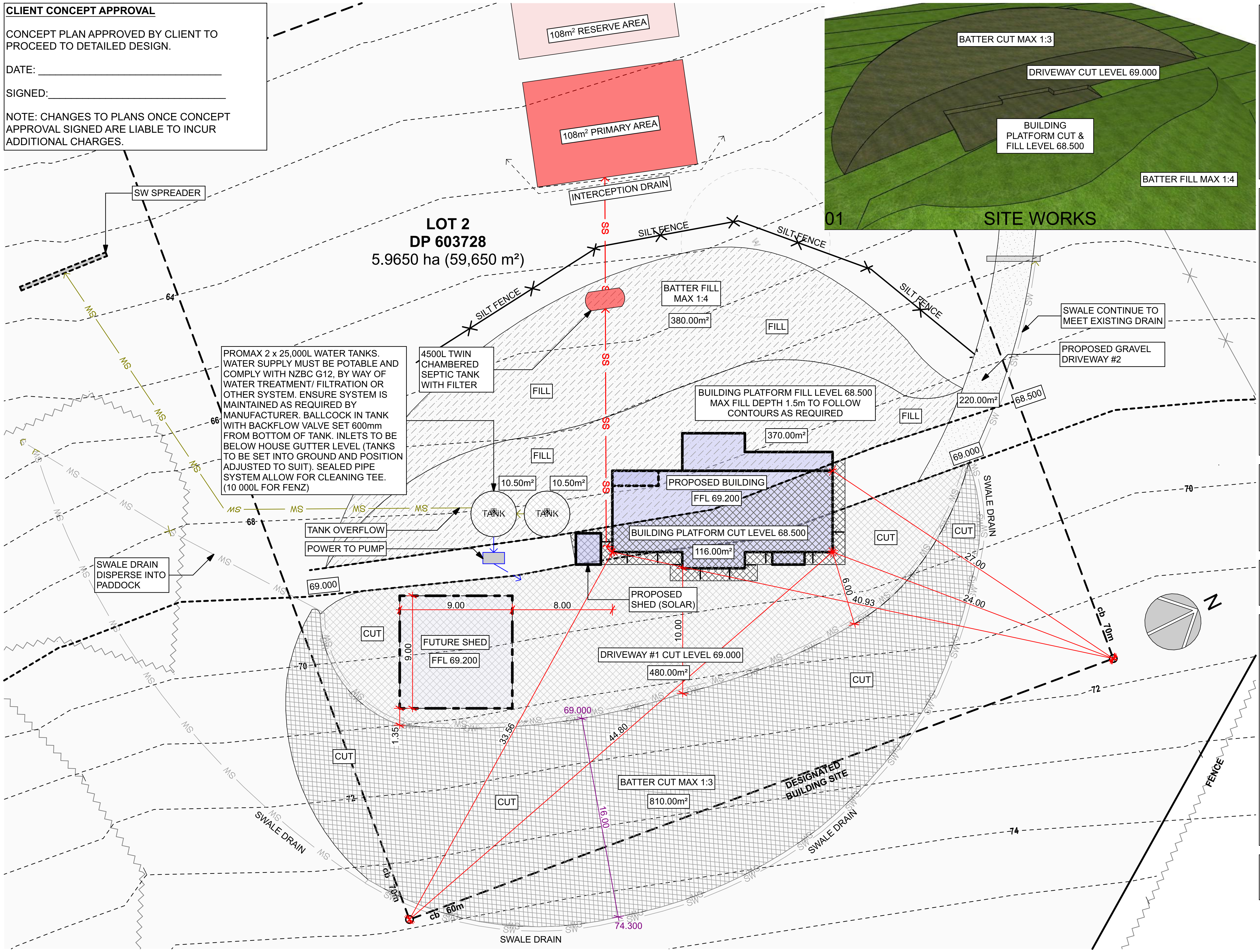
CLIENT CONCEPT APPROVAL

CONCEPT PLAN APPROVED BY CLIENT TO PROCEED TO DETAILED DESIGN.

DATE: ______________________________

SIGNED:______________________________

NOTE: CHANGES TO PLANS ONCE CONCEPT APPROVAL SIGNED ARE LIABLE TO INCUR ADDITIONAL CHARGES.



SITE PLAN NOTES:

SITE DESCRIPTION

LOT NUMBER:	LOT 2
DP NUMBER:	DP 603728
ADDRESS:	2791, STATE HIGHWAY 10, MANGONUI

SITE ENVIRONMENT

CLIMATE ZONE	BRANZ - 1
EARTHQUAKE ZONE	BRANZ - 1
EXPOSURE ZONE	BRANZ - D
LEE ZONE	BRANZ - NO
WIND ZONE	VH
WIND REGION	BRANZ - A
RAINFALL RANGE	BRANZ - 90-100mm/hr
SNOW ZONE	NO

DISTRICT PLAN COMPLIANCE

PLANNING ZONE	GENERAL COASTAL

BUILDING COVERAGE

SITE AREA	5.9650 ha (59,650 m²)
MAX. FLOOR AREA PERMITTED:	VISUAL AMENITY - 25m²
PROPOSED DWELLING	116.48m²
PROPOSED COVERED DECK	4.42m²
PROPOSED SHED (SOLAR)	5.00m²
TOTAL	125.90m² (0.21%) **INFRINGEMENT**

BUILDING HEIGHT & HIRB

MAX. HEIGHT PERMITTED	8.0m
PROPOSED HEIGHT	5.0m **COMPLIES**
HIRB	2m UP, 45 DEGREES IN **COMPLIES**

SETBACK TO BUSH

GREATER THAN 20m	
DISTANCE TO BUSH MIN 20m -	CLEARED **COMPLIES**

LRV

30% MAX. LRV

STORMWATER MANAGEMENT

SITE AREA	5.9650 ha (59,650 m²)
TOTAL AREA PERMITTED	5965m² (10%)
PROPOSED ROOF AREA	154.58m²
PROPOSED DRIVE #1	480.00m²
PROPOSED DRIVE #2	220.00m²
TOTAL	854.58m² 1.50% **COMPLIES**

STORMWATER SUMP / CESS PIT

TOTAL SURFACES AREA:	700.00 m²
RAINFALL INTENSITY	BRANZ - 90-100mm/hr
NUMBER OF SUMPS REQUIRED (E1 TYPE2): 2	

EARTHWORKS:

VOLUME PERMITTED:	300m³
SITE CUT m³	1500.00m³
SITE FILL m³	1500.00m³
GROSS CUT/FILL (EST):	3000.00m³ **INFRINGEMENT**
CUT SURFACE AREA	1410.00m²
FILL SURFACE AREA	750.00m²
CUT FILL HEIGHT PERMITTED:	3.0m TOTAL
MAX 1.5m CUT OR FILL AT	
MAX CUT HEIGHT:	2.3m
MAX FILL HEIGHT:	1.5m **INFRINGEMENT**

EARTHWORKS **PERMIT REQUIRED** IF EXCAVATIONS ARE:
>50m2 AREA
>50m3 VOLUME
>0.5m HEIGHT
<3.0m TO BOUNDARY

NOTES:
SHEAR VANE TEST OF FILL AT FOOTING INSPECTION.
SITE BENCHED & FILL APPLIED & SHEEPS FOOT ROLLED @ 150mm LAYERS.

Arcline Architecture
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Site Plan

SEAN BROADHEAD & ALICIA SHEPHERD

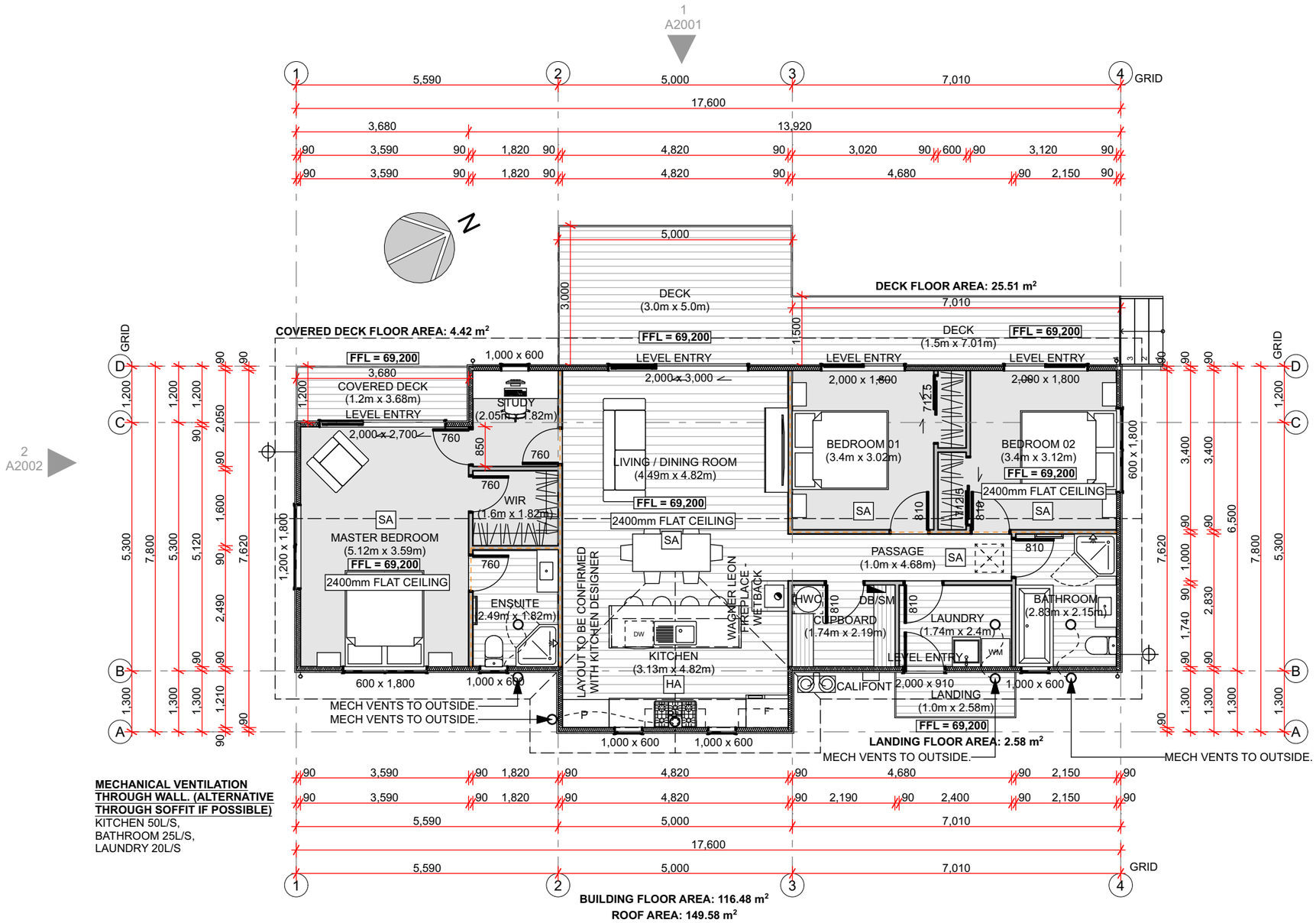
2791, STATE HIGHWAY 10, MANGONUI

Rev No.	Revision	Date

Scale @ A3: 1:300
Drawn By MC
Issued: 27/05/2025 11:42 AM

Sheet No: **A1002**
CAD CONCEPT

Broadhead Residence CC - 19052025.pln



MECHANICAL VENTILATION THROUGH WALL. (ALTERNATIVE THROUGH SOFFIT IF POSSIBLE)
KITCHEN 50L/S,
BATHROOM 25L/S,
LAUNDRY 20L/S

FLOOR AREAS

PROPOSED DWELLING FLOOR AREA:	116.48m²
PROPOSED UNDERCOVER DECK REA:	4.42m²
TOTAL FLOOR AREA:	**120.90m²**

KEY:

- FLAT SOFFIT
- CEILING HATCH
- WARDROBE
- ST. — STORAGE CUPBOARD
- LIN — LINEN CUPBOARD
- POWER DISTRIBUTION BOARD & SMART METER
- FLOORING: TILE
- FLOORING: OVERLAY
- FLOORING: CARPET
- INSULATION TO INTERNAL WALLS
- MECHANICAL VENT DUCTED TO EXTERIOR
- EXTERIOR WATER TAP
- SA — SMOKE ALARM - INTERCONNECTED
- HA — HEAT ALARM - INTERCONNECTED

CLIENT CONCEPT APPROVAL

CONCEPT PLAN APPROVED BY CLIENT TO PROCEED TO DETAILED DESIGN.

DATE: _____

SIGNED: _____

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Floor Plan

SEAN BROADHEAD & ALICIA SHEPHERD

2791, STATE HIGHWAY 10, MANGONUI

Rev No.	Revision	Date

Scale @ A3: 1:100
Drawn By MC
Issued: 27/05/2025 11:42 AM
Broadhead Residence CC - 19052025.pln

Sheet No:
A1501
CAD CONCEPT
11 OF 69

JOINERY
DOUBLE GLAZED POWDER COATED ALUMINIUM JOINERY - R0.37
2,015 WINDOW HEAD HEIGHT TYPICAL

WALL CLADDING
LINEA WEATHERBOARD CLADDING (STAINLESS STEEL FIXINGS) - DIRECT FIX. INSTALLED AS PER MANUFACTURERS SPECIFICATIONS

SUBFLOOR CLADDING
150x25 H3.2 HORIZONTAL BASE BOARDS WITH 25mm GAP TO HOUSE AND DECK.

ROOF CLADDING
COLORSTEEL MAXX. 0.40G TRIMLINE PROFILE. SCREW FIXED WITH PROFILED WASHERS AS PER ROOFING MANUFACTURERS SPECIFICATIONS., EDGE FLASHINGS TO MATCH

GUTTERS
UPVC STORMCLOUD GUTTER. EXTERNAL BRACKETS WITH SS SCREWS. INSTALL TO MANUFACTURERS' RECOMMENDATIONS

FASCIA
200 x 40 H3.1 FASCIA BOARD

SOFFIT
JH 4.5mm HARDIEFLEX SOFFIT LINING, INSTALL TO MANUFACTURERS RECOMMENDATIONS, (PVC JOINTERS).

DOWNPIPES
80Ø UPVC DOWNPIPES INSTALL TO MANUFACTURERS' RECOMMENDATIONS

DECKING
140 x 35 H3.2 PREMIUM SELECTED PINE DECKING 3mm GAP, SS FIXINGS, 12mm GAP BETWEEN HOUSE CLADDING, GROOVESIDE DOWN (CLIENT TO CONFIRM)

BUILDING ENVELOPE RISK MATRIX		
All Elevations		
Risk Factor	**Risk Severity**	**Risk Score**
Wind zone (per NZS 3604)	Very high risk	2
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		**3**

1 West Elevation 1:100
A1501, A1511

JOINERY
DOUBLE GLAZED POWDER COATED ALUMINIUM JOINERY - R0.37
2,015 WINDOW HEAD HEIGHT TYPICAL

WALL CLADDING
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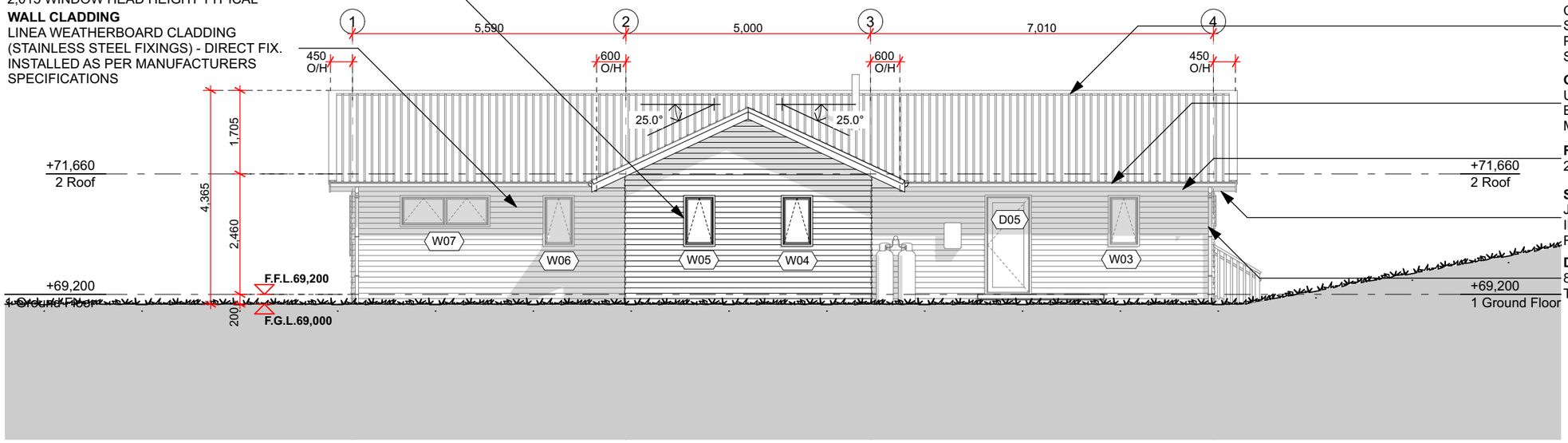

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CLIENT CONCEPT APPROVAL

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2 East Elevation 1:100
A1501, A1511

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(Web): www.arcline.co.nz

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Elevations

SEAN BROADHEAD & ALICIA SHEPHERD

2791, STATE HIGHWAY 10, MANGONUI

Rev No.	Revision	Date

Scale @ A3: 1:100
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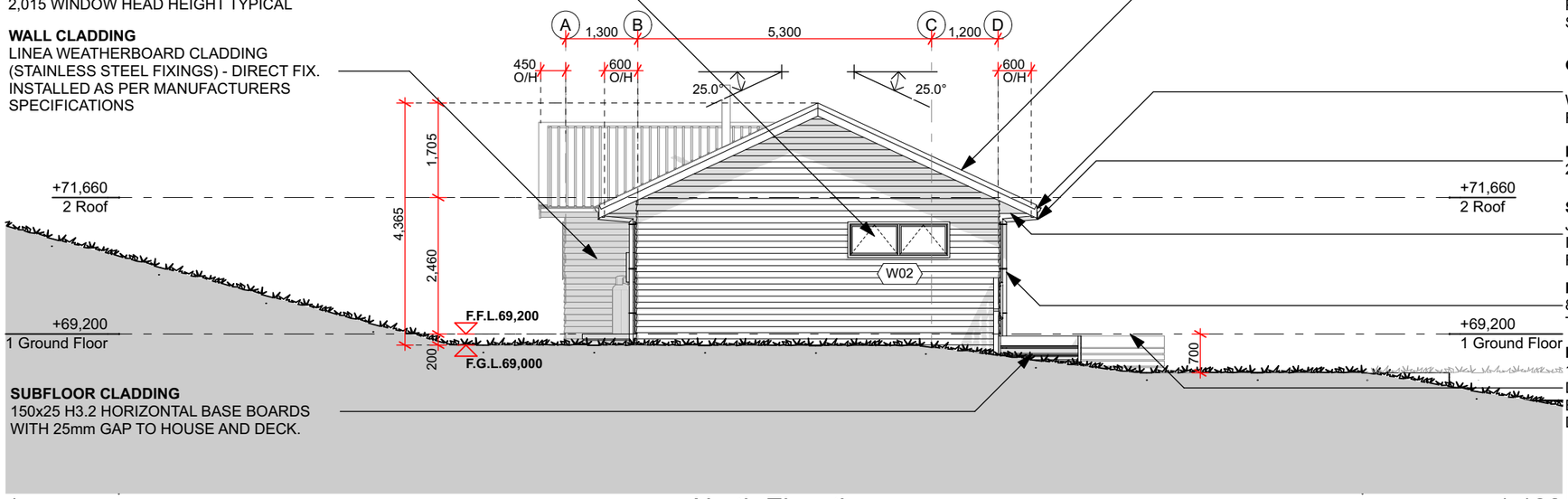
Broadhead Residence CC - 19052025.pln

Sheet No: **A2001**
CAD CONCEPT
21 OF 69

JOINERY
DOUBLE GLAZED POWDER COATED ALUMINIUM JOINERY - R0.37
2,015 WINDOW HEAD HEIGHT TYPICAL

WALL CLADDING
LINEA WEATHERBOARD CLADDING (STAINLESS STEEL FIXINGS) - DIRECT FIX. INSTALLED AS PER MANUFACTURERS SPECIFICATIONS



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ROOF CLADDING
COLORSTEEL MAXX. 0.40G TRIMLINE PROFILE. SCREW FIXED WITH PROFILED WASHERS AS PER ROOFING MANUFACTURERS SPECIFICATIONS., EDGE FLASHINGS TO MATCH

GUTTERS
UPVC STORMCLOUD GUTTER. EXTERNAL BRACKETS WITH SS SCREWS. INSTALL TO MANUFACTURERS' RECOMMENDATIONS

FASCIA
200 x 40 H3.1 FASCIA BOARD

SOFFIT
JH 4.5mm HARDIEFLEX SOFFIT LINING, INSTALL TO MANUFACTURERS RECOMMENDATIONS,(PVC JOINTERS).

DOWNPIPES
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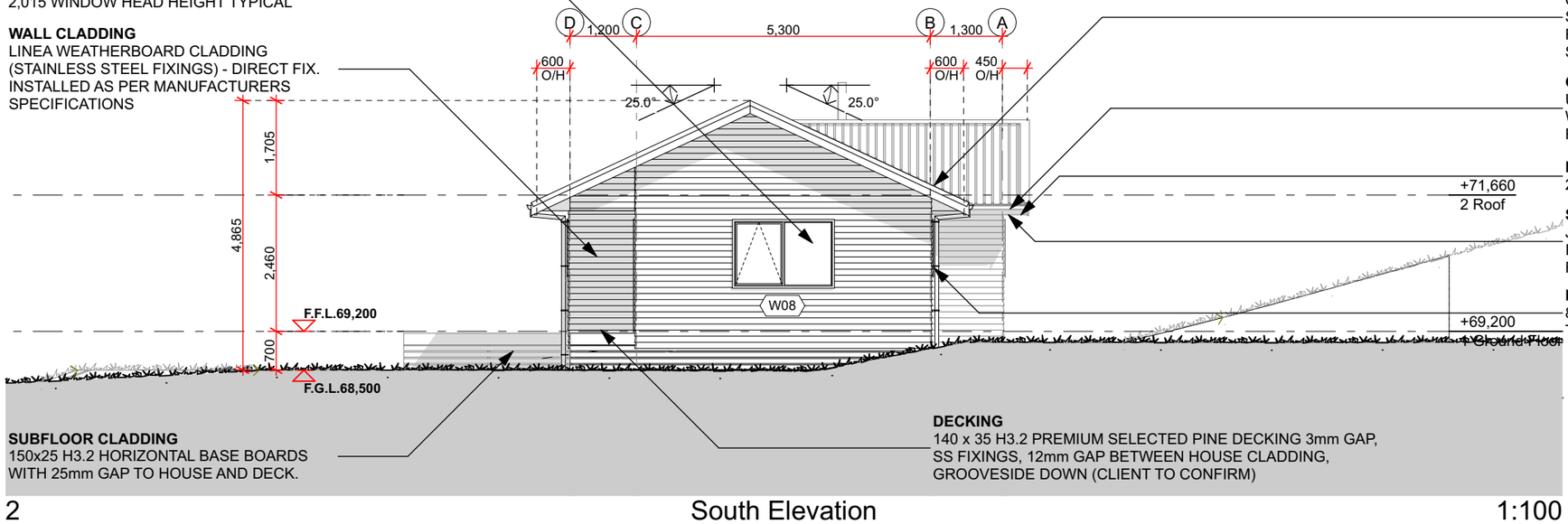
DECKING
140 x 35 H3.2 PREMIUM SELECTED PINE DECKING 3mm GAP, SS FIXINGS, 12mm GAP BETWEEN HOUSE CLADDING, GROOVESIDE DOWN (CLIENT TO CONFIRM)

BUILDING ENVELOPE RISK MATRIX		
All Elevations		
Risk Factor	**Risk Severity**	**Risk Score**
Wind zone (per NZS 3604)	Very high risk	2
Number of storeys	Low risk	0
Roof/wall intersection design	Low risk	0
Eaves width	Medium risk	1
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		**3**

1 North Elevation 1:100
A1501, A1511

JOINERY
DOUBLE GLAZED POWDER COATED ALUMINIUM JOINERY - R0.37
2,015 WINDOW HEAD HEIGHT TYPICAL

WALL CLADDING
LINEA WEATHERBOARD CLADDING (STAINLESS STEEL FIXINGS) - DIRECT FIX. INSTALLED AS PER MANUFACTURERS SPECIFICATIONS



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2 South Elevation 1:100
A1501, A1511

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Elevations

SEAN BROADHEAD & ALICIA SHEPHERD

2791, STATE HIGHWAY 10, MANGONUI

Rev No.	Revision	Date

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Sheet No:
A2002
CAD CONCEPT
22 OF 69

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

ON-SITE WASTE WATER DISPOSAL REPORT

CLIENT

SEAN BROADHEAD & ALICIA SHEPHERD

SITE LOCATION

2791 STATE HIGHWAY 10, MANGONUI

NORTHLAND WIDE

KERIKERI DRAINAGE LTD

51C ORANGEWOOD LANE
KERIKERI
NORTHLAND
PHONE 094078062 A/HRS
MOBILE 0274931597
FAX 094078062
E mail wood123@xtra.co.nz

20/05/22
The Senior Building Inspector
Far North District Council
Private Bag 752
Kaikohe

RE : ON-SITE WASTE WATER TREATMENT SYSTEM FOR PROPOSED LOT 2 AND SITE REPORT FOR SUBDIVISION OF LOT 1, DP 138817, 2791 SH 10, MANGONUI

On the 17th of May an inspection of the above site was undertaken to assess the option for on-site waste water treatment and effluent disposal for a proposed 4 bedroom house and subdivision.
The new lot 2 is 60000 SQ M and generally faces NW.
A bore hole was drilled to determine soil profile and any ground water. The soil was found to be 0.15 M of topsoil overlaying an orange compact clay. No ground water was encountered.
The soil is classed in soil category 4, Rangiuru Clay with well to moderately well drainage.
The contour of the site is approximately 7-9 degrees where the proposed effluent field for lot 2 is to be constructed but there are steeper areas.
The most appropriate waste water treatment system would be septic tank treatment and shallow media filled soakage trenching providing bottom loading for effluent disposal and side wall reserve loading.
The design has been based on a 4 bedroom house with 6 people generating 180 litres per day per person (tank supply) equals 1080 litres per day with a trench loading rate of 10 mm per sq M per day .
This design will require 108 sq M of soakage trench. Four trenches 27 M long and 1 M wide with a minimum of 2.5M between centres can be constructed below the house as per the site plan.
A shallow swale cut off drain is require to protect the soakage field from stormwater run off.
There is more than adequate reserve area.
There is unfavourable land application areas with a wetland on the most westerly boundary and steep slopes and a pond on the SE boundary as shown on plan 1.
The existing house on proposed lot 1 has a conventional waste waster system being a septic tank and shallow media filled trenches that appears to be working well and well inside the proposed new boundaries.
To provide long term satisfactory treatment and disposal of domestic waste water it is required that :-
A) The septic tank be a dual chamber of 4500 litre minimum capacity fitted with a Zabell 1800 filter or equivalent.
B) The soakage trenches be constructed as detailed on the drawings supplied.
C) The bottom of the trenches be flat or at a grade not steeper than 1 in 200.
D) The septic tank be desludged and the outlet filter checked and maintained as per FNDC bylaw.
E) Sink disposal units will not be installed in the dwelling.
F) Kerikeri Drainage Ltd will not be liable for any drainage work done by others and all work to be done to the best professional and trade practises and to the design.

Yours Faithfully Steve Wood.


Search address, legal desc
KM
Hihi Road
RU
Hihi Road
Fosters Road
Fosters Road
State Highway 10
RU
Midday Road
RU
Paewhenua Island
RU
State Highway 10
Paewhenua Island
MN
MNH
SITE
State Highway 10
RU
RU
Kohumaru Road
MN
Midday Road
Lapinio Valley Road
MNH
Frantola Ridge Road
MN
Midday Road
MNH
MNH
Kohumaru Road
MF

0.4km

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**NA82B/35**
Land Registration District	**North Auckland**
Date Issued	11 June 1991

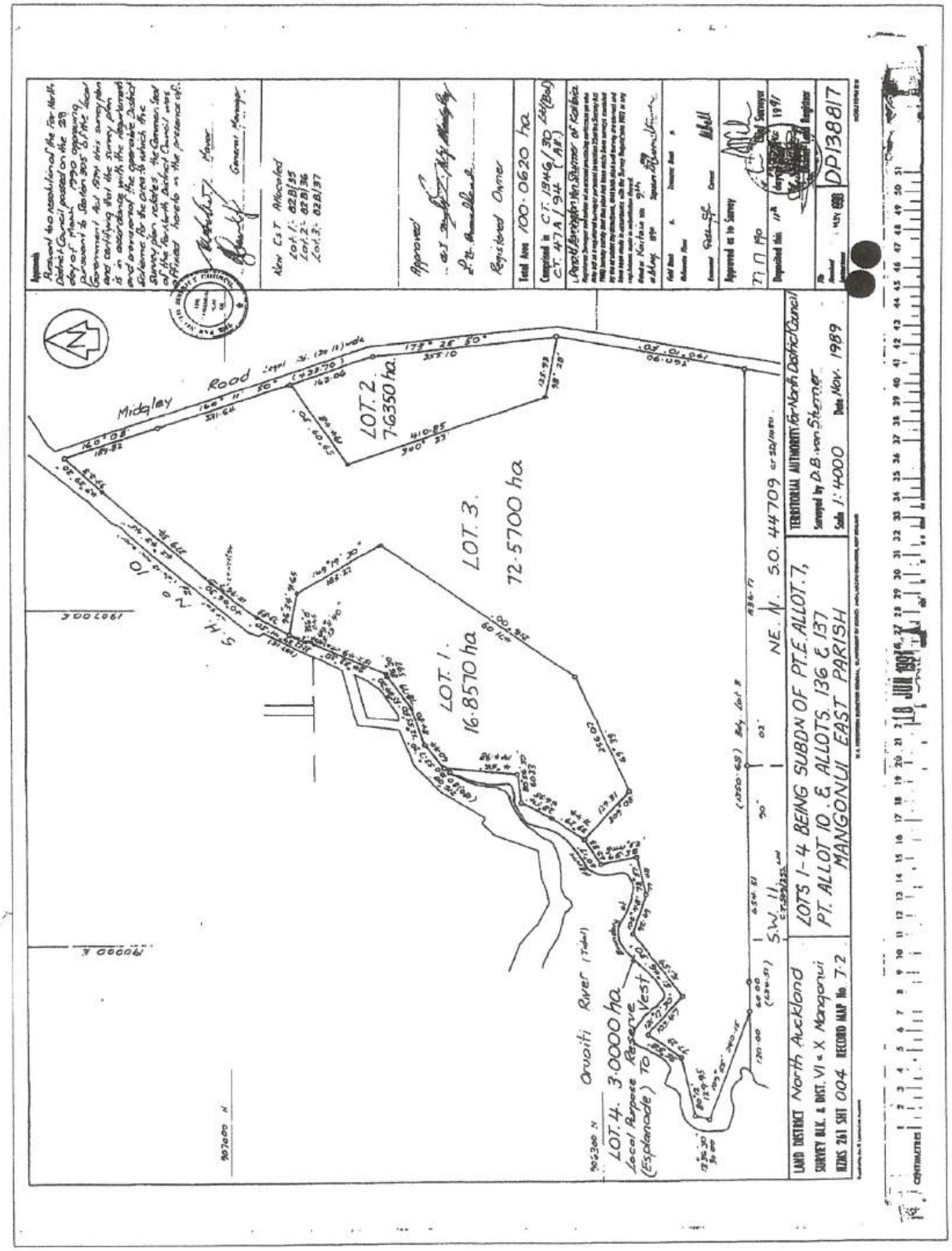
Prior References
NA1346/30 NA47A/94

Estate	Fee Simple
Area	16.8570 hectares more or less
Legal Description	Lot 1 Deposited Plan 138817

Registered Owners
Lynda Norma Broadhead, David John Broadhead and Spicers Trustee Company (2005) Limited

Interests

Subject to Section 168A Coal Mines Act 1925


Midgley Road
LOT. 2
7.6350 ha.
LOT. 3.
72.5700 ha
LOT. 1.
16.8570 ha
LOT. 4. 3.0000 ha
Local Purpose (Esplanade) Reserve
Oruaiti River (Tidal)
N.E. M. S.O. 44709
S.W. 11
LOTS 1-4 BEING SUBDN OF PT. E. ALLOT. 7, PT. ALLOT 10. & ALLOTS. 136 & 137 MANGONUI EAST PARISH
LAND DISTRICT North Auckland
SURVEY GEN. & DIST. VI « X Mangonui
BEING 2&3 SHT 004 RECORD MAP No. 7-2
TERRITORIAL AUTHORITY for North Dist. Council
Surveyed by D.B. van Stenner
Scale 1:4000 Date Nov. 1989
DP138817
New C.S.T Allocated
Lot 1: 828/35
Lot 2: 828/36
Lot 3: 828/37
Total Area 100.0620 ha
Compiled in C.T. 1946 (3D Lot/Bod) C.T. 47A/94 (All)
Registered Owner
Approved
Deposited 11th Nov 1991
Approved as to Survey
Title No

PRODUCER STATEMENT

DESIGN: ON-SITE EFFLUENT DISPOSAL SYSTEMS (T.P.58)

ISSUED BY: Steve Wood (approved qualified design professional)

TO: Sean Broadhead & Alicia Shepherd (owner)

TO BE SUPPLIED TO: Far North District Council

PROPERTY LOCATION: 2791 SH 10, Mangonui

LOT 1 DP 138817 VALUATION NUMBER 00085/07004

TO PROVIDE : Design an on-site effluent disposal system in accordance with Technical paper 58 and provide a schedule to the owner for the systems maintenance.

THE DESIGN: Has been in accordance with G13 (Foul Water) G14 (Industrial Liquid Waste) B2 (durability 15 years) of the Building Regulations 1992.

As an independent approved design professional covered by a current policy of Professional Indemnity Insurance (Design) to a minimum value of $200,000.00. I BELIEVE ON REASONABLE GROUNDS that subject to:

(1) The site verification of the soil types.

(2) All proprietary products met the performance requirements.

The proposed design will met the relevant provisions of the Building Code and 8.15 of The Far North District Council Engineering Standards.

(Signature of approved design professional)

Certifying Drainlayer (Professional qualifications)

08189 (Licence Number or professional Registration number)

Address 51C Orangewood Lane

Kerikeri

Phone Number 094078062
Fax Number 094078062
Cell Phone 0274931597
Date 19/05/22

Note: This form is to accompany every application for a Building Consent incorporating a T P 58. Approval as a design professional is at Councils discretion.

FAR NORTH DISTRICT COUNCIL

Appendix E

TP58

On-site Wastewater Disposal Site Evaluation Investigation Checklist

Part A –Owners Details

1. Applicant Details:

Applicant Name	Sean Broadhead	
Company Name		
	First Name(s)	Surname
Property Owner Name(s)	Sean Alicia Kerryanne	Broadhead Shepherd

Nature of Applicant*	Purchaser

*(*i.e. Owner, Leasee, Prospective Purchaser, Developer)*

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	Kerikeri Drainage			
Site Evaluator Name	Steve Wood			
Postal Address	51C Orangewood Lane			
	Kerikeri			
Phone Number	Business	094078062	Private	094078062
	Mobile	0274931597	Fax	094078062
Name of Contact Person	Steve Wood			
E-mail Address	wood123@xtra.co.nz			

3. Are there any previous existing discharge consents relating to this proposal or other waste discharge on this site?

Yes		No	tick	(Please tick)

If yes, give Reference Numbers and Description
Not on the proposed new lot

4. List any other consent in relation to this proposal site and indicate whether or not they have been applied for or granted

If so, specify Application Details and Consent No.

(eg. LandUse, Water Take, Subdivision, Earthworks Stormwater Consent)

Part B- Property Details

1. Property for which this application relates:

Physical Address of Property	2791 SH 10, Mangonui
Territorial Local Authority	FAR NORTH DISTRICT COUNCIL
Regional Council	NORTHLAND REGIONAL COUNCIL
Legal Status of Activity	Permitted: Controlled: Discretionary:
Relevant Regional Rule(s) (Note 1)	
Total Property Area (m^2)	60000 sq M new lot 2
Map Grid Reference of Property If Known	

2. Legal description of land (as shown on Certificate of Title)

Lot No.		DP No.		CT No.	
	1		138817		NA82B/35
Other (specify)					

Please ensure copy of Certificate of Title is attached

PART C: Site Assessment - Surface Evaluation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation and Sn 5.2.2(a) Site Surface Evaluation)

Note: Underlined terms defined in Table 1, attached

Has a relevant property history study been conducted?

Yes		No	tick	(Please tick one)

If yes, please specify the findings of the history study, and if not please specify why this was not considered necessary.

Gently sloping site with plenty of top soil

1. **Has a Slope Stability Assessment been carried out on the property?**

Yes		No	tick	Please tick

If No, why not?

No sign of instability in adjacent properties.

If Yes, please give details of report (and if possible, please attach report):

Author	
Company/Agency	
Date of Report	
Brief Description of Report Findings:-	

2. **Site Characteristics (See Table 1 attached):**

Provide descriptive details below:
Performance of Adjacent Systems:
No known problems.
Estimated Rainfall and Seasonal Variation:
Information available from **N.I.W.A MET RESEARCH**
1600mm per year. 900mm winter / 700mm summer
Vegetation / Tree Cover:
Grassed
Slope Shape: (Please provide diagrams)
Constant grade
Slope Angle:
Approximately 12-4 degrees. 7-9 degrees where effluent field is to be constructed.
Surface Water Drainage Characteristics:
Sheet flow
Flooding Potential: YES/NO
NO
If yes, specify relevant flood levels on appended site plan, I.e. one in 5 years and/or 20 year and/or 100 year return period flood level, relative to disposal area.
Surface Water Separation:
Surface water separation can be kept to council requirements.
Site Characteristics: or any other limitation influencing factors
Good topsoil depth

3. Site Geology — Check Rock Maps

Rangiuru Clay that is well to moderately well drained

Geological Map Reference Number	NZMS 290. SHEET P 04/05

4. What Aspect(s) does the proposed disposal system face? (please tick)

North		West	
North-West	tick	South-West	
North-East		South-East	
East		South	

5. Site clearances,(Indicate on site plan where relevant)

Separation Distance from	Treatment Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries	3 M Minimum	Check Council requirements 3 M
Surface water, rivers Creeks drains etc	20 M Minimum	20 M Minimum
Groundwater	1.2 M Minimum	1.2 M Minimum
Stands of Trees/Shrubs		
Wells, water bores	30 M Minimum	30 M Minimum
Embankments/retaining walls		
Buildings	3 M Minimum	3 M Minimum
Other (specify):		

PART D: Site Assessment - Subsoil Investigation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation, and Sn 5.2.2(a) Site Surface Evaluation and Sn 5.3 Subsurface Investigations)
Note: Underlined terms defined in Table 2, attached

1. Please identify the soil profile determination method:

Test Pit		(Depth_____m	No of Test Pits	
Bore Hole		(Depth 1.1 metres m	No of Bore Holes	One
Other (specify):				

Soil Report attached?

Yes	YES	No		Please tick

2. Was fill material intercepted during the subsoil investigation?

Yes		No	tick	Please tick

If yes, please specify the effect of the fill on wastewater disposal

3. percolation testing (mandatory and site specific for trenches in soil type 4 to 7)

Please specify the method
Constant Head Permeametre

Test Report Attached?	Yes	tick	No		Please tick

4. Are surface water interception/diversion drains required?

Yes	tick	No		Please tick

If yes, please show on site plan

4a Are subsurface drains required

If yes enter details

5. Please state the depth of the seasonal water table:

Winter	1.8 metres	m	Measured		Estimated	tick
Summer	2.4 metres	m	Measured		Estimated	tick

6. Are there any potential storm water short circuit paths?

Yes		No	tick	Please tick
If the answer is yes, please explain how these have been addressed				

7. Based on results of subsoil investigation above, please indicate the disposal field soil category *(Refer TP58 Table 5.1)*

Is Topsoil Present? YES	If so, Topsoil Depth?	0.15 (m)

Soil Category	Description	Drainage	Tick One
1	Gravel, coarse sand	Rapid draining	
2	Coarse to medium sand	Free draining	
3	Medium-fine & loamy sand	Good drainage	
4	Sandy loam, loam & silt loam	Moderate drainage	tick
5	Sandy clay-loam, clay loam & silty clay-loam	Moderate to slow drainage	
6	Sandy clay, non-swelling clay & silty clay	Slow draining	
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	

Reasons for placing in stated category

Assessment of soil texture
Observation of soakage test
Checking soil maps

PART E: Discharge Details

1. Water supply source for the property (please tick):

Rainwater (roof collection)	tick
Bore/well	
Public supply	

2. Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available

(Refer TP58 Table 6.1 and 6.2)

Number of Bedrooms	~~2~~ ~~3~~ ~~4~~			Four
Design Occupancy	SIX			(Number of People)
Per capita Wastewater Production	~~140~~	~~160~~	180	(tick) (Litres per person per day)
Other - specify	~~200~~	~~220~~		
Total Daily Wastewater Production	1080			(litres per day)

3. Do any special conditions apply regarding water saving devices

a) Full Water Conservation Devices?	Yes		No	tick	(Please tick)
b) Water Recycling - what %?	%			tick	(Please tick)

If you have answered yes, please state what conditions apply and include the estimated reduction in water usage

DUAL FLUSH TOILET
NO GARBAGE GRINDER
LOW FLOW DISHWASHER

4. Is Daily Wastewater Discharge Volume more than 2000 litres:

Yes		(Please tick)
No	tick	(Please tick)

Note if answer to the above is yes, an N.R.C wastewater discharge permit may be required

5. Gross Lot Area to Discharge Ratio:

Gross Lot Area	60000	M
Total Daily Wastewater Production	1080	(Litres per day)(from above)
Lot Area to Discharge Ratio	55.56	

7. Does this proposal comply with the Northland Regional Council Gross Lot Area to Discharge Ratio of greater than 3?

Yes	tick	No		Please tick

8. Is a Northland Regional Council Discharge Consent Required?

Yes		No	tick	(Please tick)

PART F: Primary Treatment *(Refer TP58 Section 7.2)*

1. Please indicate below the no. and capacity (litres) of all septic tanks including type (single/dual chamber grease traps) to be installed or currently existing: If not 4500 litre, duel chamber explain why not

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
ONE	DUAL CHAMBER	4500 litres
	Total Capacity	4500 litres

2. Type of Septic Tank Outlet Filter to be installed?

Zabell filter or equivalent.

PART G: Secondary and Tertiary Treatment
(Refer TP58 Section 7.3, 7.4, 7.5 and 7.6)

1. Please indicate the type of additional treatment, if any, proposed to be installed in the system: (please tick)

Secondary Treatment			
Home aeration plant			
Commercial aeration plant			
Intermediate sand filter			
Recirculating sand filter			
Recirculating textile filter			
Clarification tank			
Tertiary Treatment			
Ultraviolet disinfection			
Chlorination			
Other		Specify	

PART H: Land Disposal Method
(Refer TP58 Section 8)

1. Please indicate the proposed loading method: (please tick)

Gravity	tick
Dosing Siphon	
Pump	

2.High water level alarm to be installed in pump chambers

~~Yes~~	no

If not to be installed, explain why

NA

3. If a pump is being used, please provide the following information:

Total Design Head		(m)
Pump Chamber Volume		(Litres)
Emergency Storage Volume		(Litres)

4. Please identify the type(s) of land disposal method proposed for this site: (please tick)
(Refer TP58 Sections 9 and 10)

Surface Dripper Irrigation			
Sub-surface Dripper irrigation			
Standard Trench	tick		
Deep Trench			
Mound			
Evapo-transpiration Beds			
Other		Specify	

5. Please identify the loading rate you propose for the option selected in Part H, Section 4 above, stating the reasons for selecting this loading rate:

Loading Rate	10		(Litres/m2/day)
Disposal Area	Design	108	(m2)
	reserve	108	(m2)

Explanation *(Refer TP58 Sections 9 and 10)*

Conservative loading rate
100 percent reserve area

6. What is the available reserve wastewater disposal area *(Refer TP58 Table 5.3)*

Reserve Disposal Area (m²)	108
Percentage of Primary Disposal Area (%)	100 percent

7. Please provide a detailed description of the design and dimensions of the disposal field and attach a detailed plan of the field relative to the property site:

Description and Dimensions of Disposal Field:

Four trenches 27 M metres long x one metres wide laid to contour of site with 2.5 metre minimum centres fed by a distribution box as on the plan.

Plan Attached?	Yes	tick	No		(Please tick)

If not, explain why not

PART I: Maintenance & Management

(Refer TP58 Section 12.2)

1. Has a maintenance agreement been made with the treatment and disposal system suppliers?

Yes		No	tick	(Please tick)

Name of Suppliers

AWWS septic tank or similar

PART J: Assessment of Environmental Effects

1. Is an assessment of environmental effects (AEE) included with application?

(Refer TP58 section 5. Ensure all issues concerning potential effects addressed)

Yes	tick	No		(Please tick)

If Yes, list and explain possible effects

PART K: Is Your Application Complete?

1. In order to provide a complete application you have remembered to:

Fully Complete this Assessment Form	YES
Include a *Location Plan* and *Site Plan* (with Scale Bars)	YES
Attach an Assessment of Environmental Effects (AEE)	YES

1. Declaration

I hereby certify that, to the best of knowledge and belief, the information given in this application is true and complete.

Name	Steve Wood	Signature	
Position	Designer	Date	19/05/22

Note

Any alteration to the site plan or design after approval will result in non compliance.

Job No.

ON-SITE EFFLUENT DISPOSAL
SSESSMENT OF ENVIRONMENTAL EFFECTS, MITIGATION MEASURES

Assessment of Environmental Effects

Impact on Surface Water (incl. flood times) VERY MINOR

Impact on Ground Water VERY MINOR

Impact on Soils MINOR

Impact on Amenity Values MINOR

Public Health Issues:

Should access to the disposal area be discouraged? YES

Will odour effects be greater than usual? NO

Will noise effects be greater than usual? NO

Mitigation Measures

Has conservative approach been taken in choosing system design capacity? YES

Is system design robust (cope with fluctuations of load, climate)? YES

Is level of treatment high? PRIMARY WASTE WATER TREATENT

Protection against failure storage, alarms? RESERVE AREAS AND SIDE WALL LOADING
Is hydraulic loading rate conservative? YES

Is distribution area protected from hydraulic overload (interception drains)? YES

Will soil type enhance treatment? YES

Are desired separation distances attainable? (to surface water, groundwater, bores) YES

Is the reserve area adequate? YES. 100 PERCENT

Client:
Job:
Location:
Augerhole No.:
Drilling Method:

REF:
Logger:
Date:
Page:
Checked:

PERCOLATION TEST -GRAPH SHEET

Client: Broadhead & Shepherd
Job:
Location:

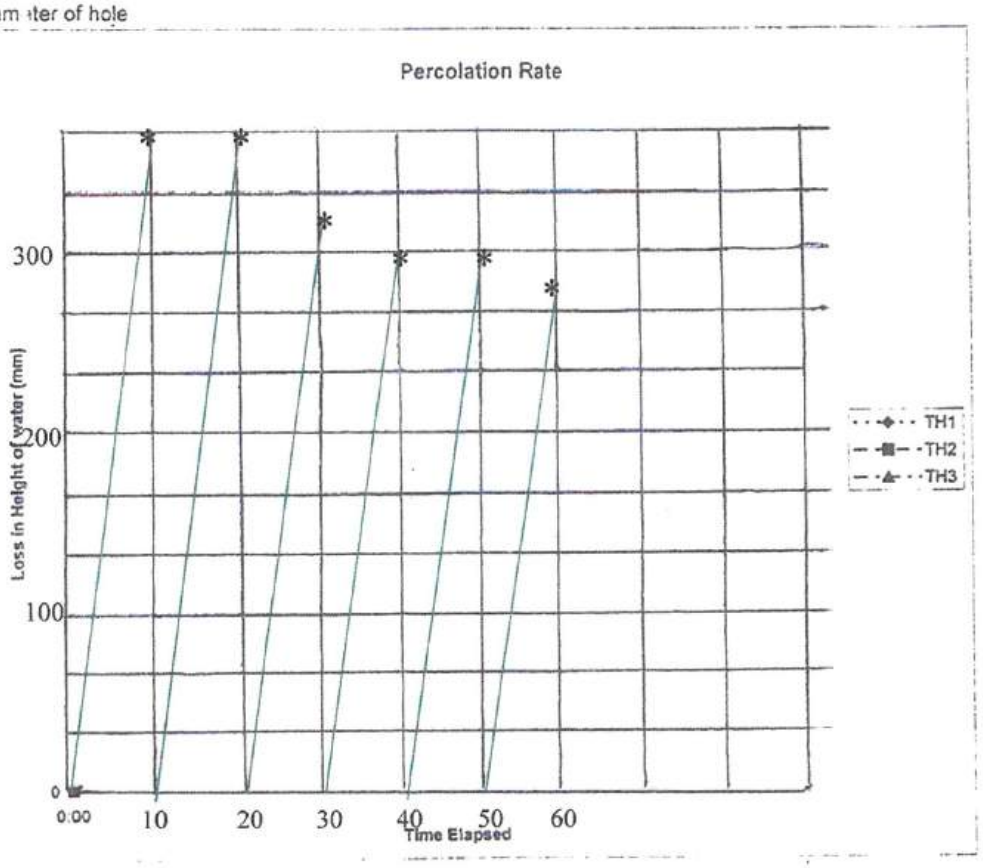
Ref.:
Report No.:
Page:

Steve Wood
Tested by: 18/05/22
Date:

Presoaking conditions: 30 Min
Weather conditions prior: Fine

		Loss in height of water					Percolation Rate (mm/hr)			
Time	Time elapsed	TH1	TH2	TH3	TH4		TH1	TH2	TH3	TH4
	10 min	375					2250			
	10 min	375					2250			
	10 min	325					1950			
	10 min	300					1800			
	10 min	300					1800			
	10 min	275					1650			

Depth of hole
Depth of topsoil
Diam ter of hole



Depth (m)	Legend	Soil Symbol	Soil Description	Water Level	Vane Shear Strength maximum/residual corrected kPa	Soil Sensitivity	Sample Number	Other Tests
0			TOPSOIL					
-0.2			BROWN CLAY					
-0.5			ORANGE CLAY LOAM					
-1								
-1.2								
-1.5								
-1.8								
-2								
-2.5								
-3								
-3.3								

Remarks:

Plenty of topsoil and no ground water encountered.

Topsoil		Sand	
Fill		Gravel	
Clay		Peat	
Silt		Rock	

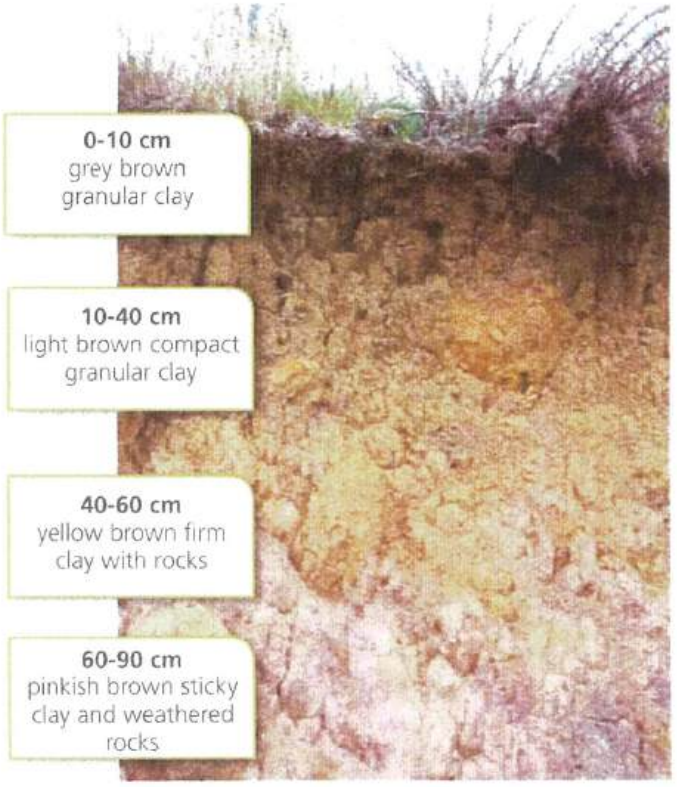
Old semi-volcanic soils

Soil types in this group

- Aranga clay – AR
- Awarua clay - AW
- Cornwallis clay – CW, CWH*
- Hihi clay – HI
- Hihi gravelly clay – HIg
- Rangiuru red brown clay – RUr, RUrH*
- Rangiuru clay – RU, RUH*

This fact sheet uses NZ Soil Bureau map series soil type names and abbreviations.

*The H denotes the hill variant of this soil type, which occurs on slopes over 20° and has a shallower profile



Rangiuru clay (RU,RUH) soil profile

Features of old semi-volcanic soils

- These old semi-volcanic soils are a complex group formed on lava, breccia, scoria and ash
- They were created from loose volcanic rubble deposited by rivers on alluvial fans and terraces
- They are part of the Huia, Katui and Te Kie suites
- These old soils are weathered, and all are strongly to very strongly leached
- Topsoils are generally shallow, very friable and free draining
- Subsoils are heavy clay with high aluminium and iron concentrations which limit plant root depth penetration due to toxicity
- While topsoils are free-draining, the sticky kaolin clay subsoils impede drainage
- Shallow topsoils and limited root depth reduce drought resilience of pastures

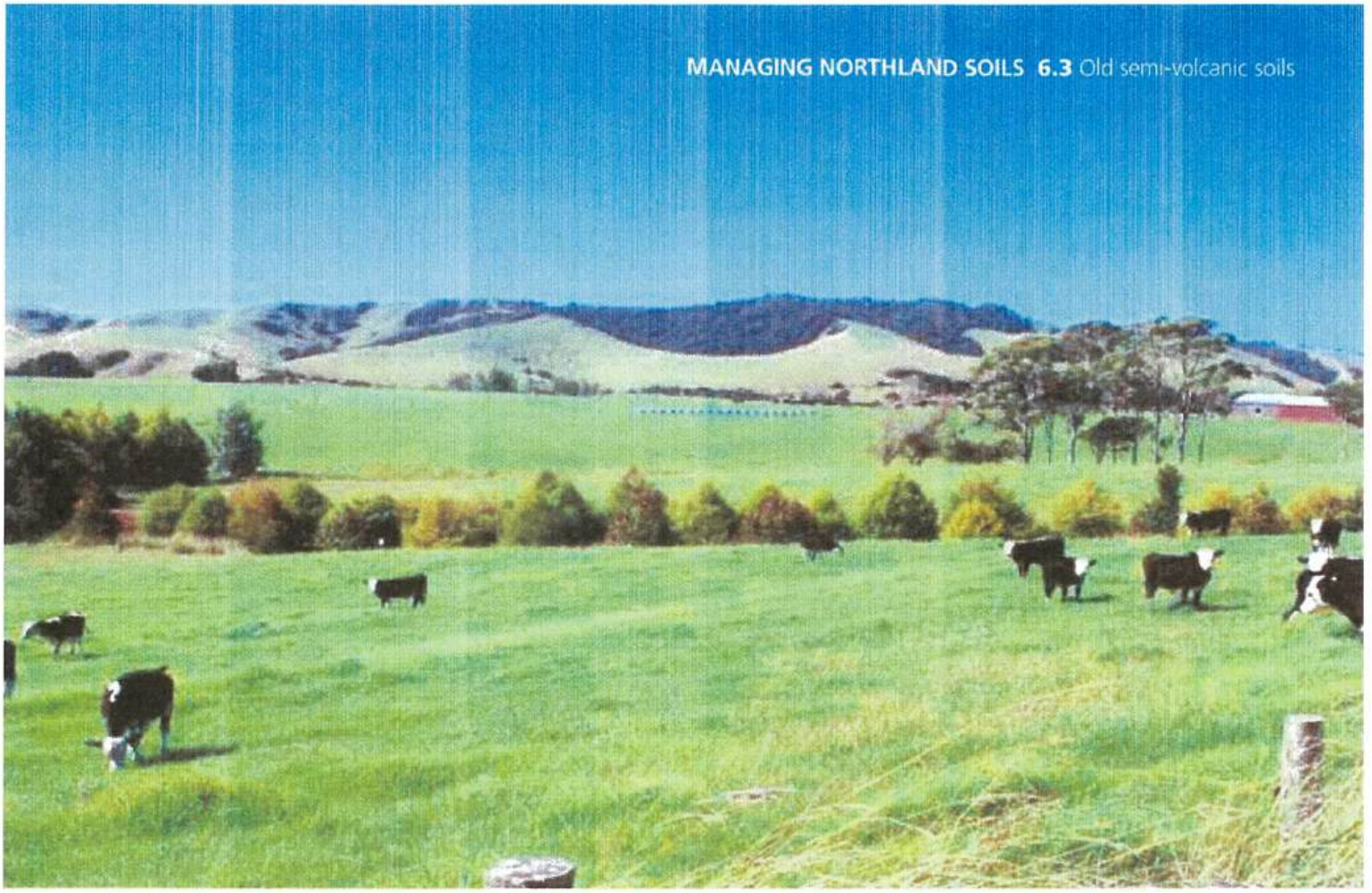
Northland REGIONAL COUNCIL

Structure and drainage management

Issues	Management tips
Shallow, very friable (crumbly) topsoils are drought prone	Avoid overgrazing of pasture and maintain a dense pasture cover to help build soil organic matter, improve soil structure and retain moisture in the soil
Friable topsoils sit overtop heavy, low-pH clay, rich in iron/aluminium that can be at toxic levels, discouraging root penetration (even pines) at low pH	Raising pH will reduce fixation effects of iron/aluminium, and reduce the toxicity, allowing plant roots to better penetrate into subsoil
Pugging, compaction and soil surface crusting in summer reduces water filtration and oxidation within soils. Nutrients become less available to plant roots	Careful winter grazing management to minimise pugging is important on these soils

Erosion control

Erosion risks	Soil type	Specific problems	Possible solutions
Sheet & rill erosion	All old semi-volcanic soils	Where soils have been exposed or cultivated, rills can develop on slopes during high rainfall, eroding topsoil Exposed subsoils are very hard to re-grass or revegetate	Maintain dense pasture cover to prevent surface erosion Early control of erosion on these soils to prevent loss of productive topsoil is critical
Gully erosion	All old semi-volcanic soils	High-intensity rainstorms can cause gullies to develop or worsen	Avoid constructing drains or tracks in areas which are prone to gullying Plant willows in a zig-zag pattern along gullies for stabilisation
Streambank erosion	All old semi-volcanic soils	Collapsing stream banks release large amounts of fine sediment (including colloidal clay) to water	Fence streams to prevent stock access and get advice on planting options



Rangiuru soils, Taurikura

Nutrient management

Soil type	Nutrient status	Management strategies
All old semi-volcanic soils	Naturally low fertility and very high phosphate fixation (binding to soil) which reduces plant - available phosphate	After optimal soil fertility is achieved, which could require large capital application, apply fertiliser on a little and often basis to provide regular inputs
All old semi-volcanic soils	These soils are deficient in micronutrients due to very high aluminium/iron coupled with advanced leaching	Seek advice from your fertiliser consultant and vet for micronutrient requirements
All old semi-volcanic soils	Weathering/leaching has made these soils very acidic. Low pH also increases phosphate fixation	Regular and generous additions of lime will be required to raise pH, reducing plant-toxic loads of iron/aluminium and helping phosphate bound to soil particles become more available to plants

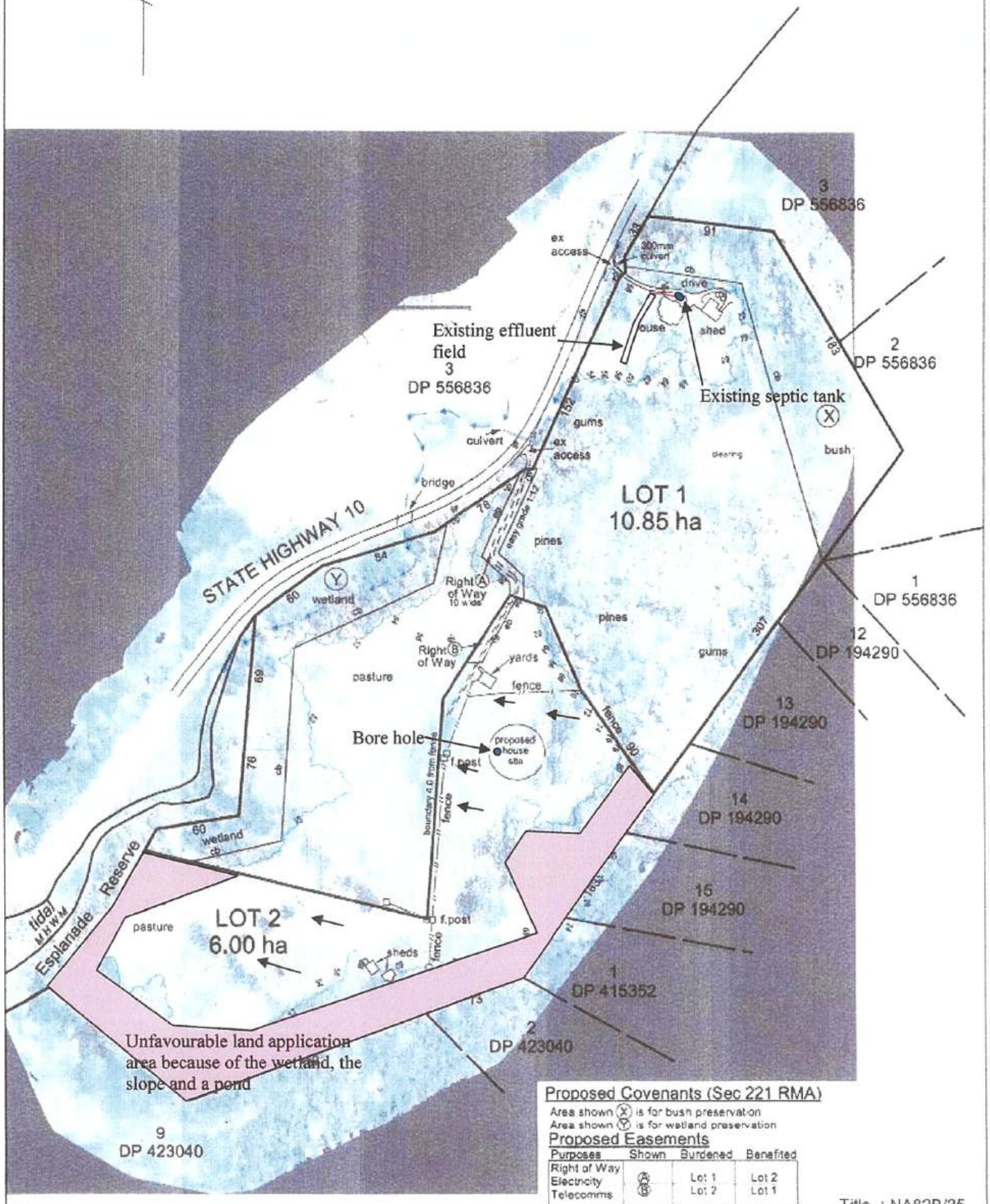
Drainage classes

Soil symbol	Full name	Drainage class
HUIA SUITE Basement rock: Tangihua volcanics Rubbly volcanic material from Whangaroa, Whangarei Heads, Dome Valley, Waitakeres		
CW, CWH	Cornwallis clay	2⇌1 - Imperfectly to poorly drained
HI	Hihi clay	2⇌1 - Imperfectly to poorly drained
HIg	Hihi gravelly clay	2⇌1 - Imperfectly to poorly drained
KATUI SUITE Basement rock: Tangihua volcanics Andesite lava flows on inland slopes of volcanoes that once extended seaward from Mangonui Bluff onto the Waipoua–Tutamoe Plateaus		
AR	Aranga clay	4⇌1 - Well to poorly drained
TE KIE SUITE Basement rock: Tangihua volcanics		
RUr, RUrH	Rangiuru red brown clay	4⇌3 - Well to moderately drained
RU, RUH	Rangiuru clay	4⇌3 - Well to moderately drained
AW	Awarua clay	4⇌1 - Well to poorly drained

Northland soil factsheet series

- Northland's climate, topography, historic vegetation and mixed geology have combined to form a complex pattern of soils across the region. There are over 320 soil types in Northland. Other regions in New Zealand average only 20 soil types per region.
- The information in this fact sheet is based on a 1:50,000 mapping scale. Therefore, it is not specific to individual farms or properties. However, it may help you to understand general features and management options for recent alluvial soils.
- Knowing your soils' capabilities and limitations is the key to sustainable production in Northland. Northland Regional Council (NRC) land management advisors are available to work with landowners to provide free soil conservation advice, plans and maps specific to your property.
- Regular soil tests are recommended. If you are concerned about your soil structure or health, the Visual Soil Assessment test could be useful. Contact the land management advisors at Northland Regional Council for more information.
- Further background information about the processes that have formed these soils can be found here: **www.nrc.govt.nz/soilfactsheets**

PLAN 1



Proposed Covenants (Sec 221 RMA)

Area shown (X) is for bush preservation
Area shown (Y) is for wetland preservation

Proposed Easements

Purposes	Shown	Burdened	Benefited
Right of Way	(A)	Lot 1	Lot 2
Electricity	(B)	Lot 2	Lot 1
Telecomms			

Notes:
Areas and measurements are subject to survey
For resource consent purpose only.

0 25 50 75 100 125 250

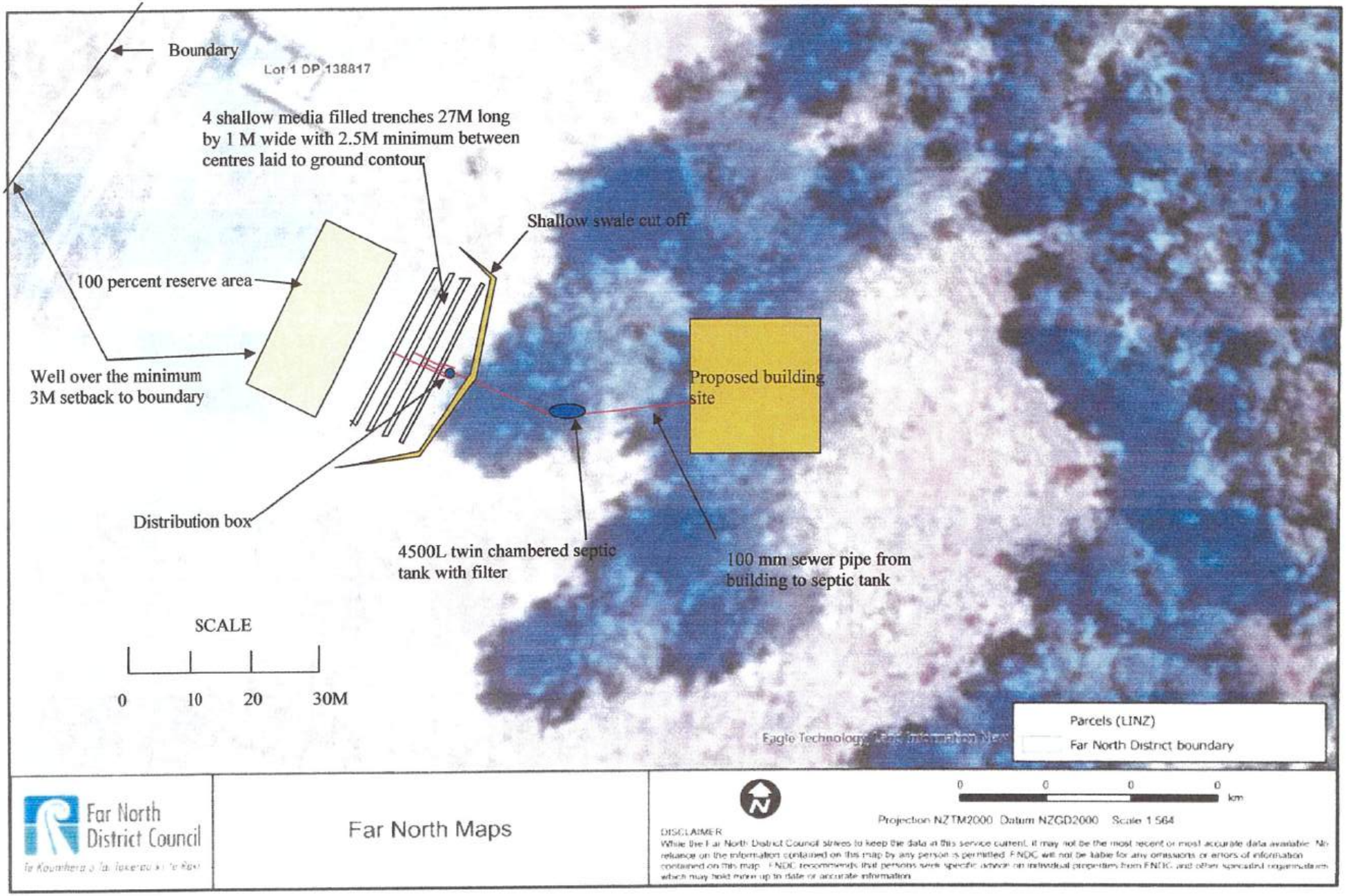
Title : NA82B/35
Total Area : 16.857ha
Zone : General Coastal

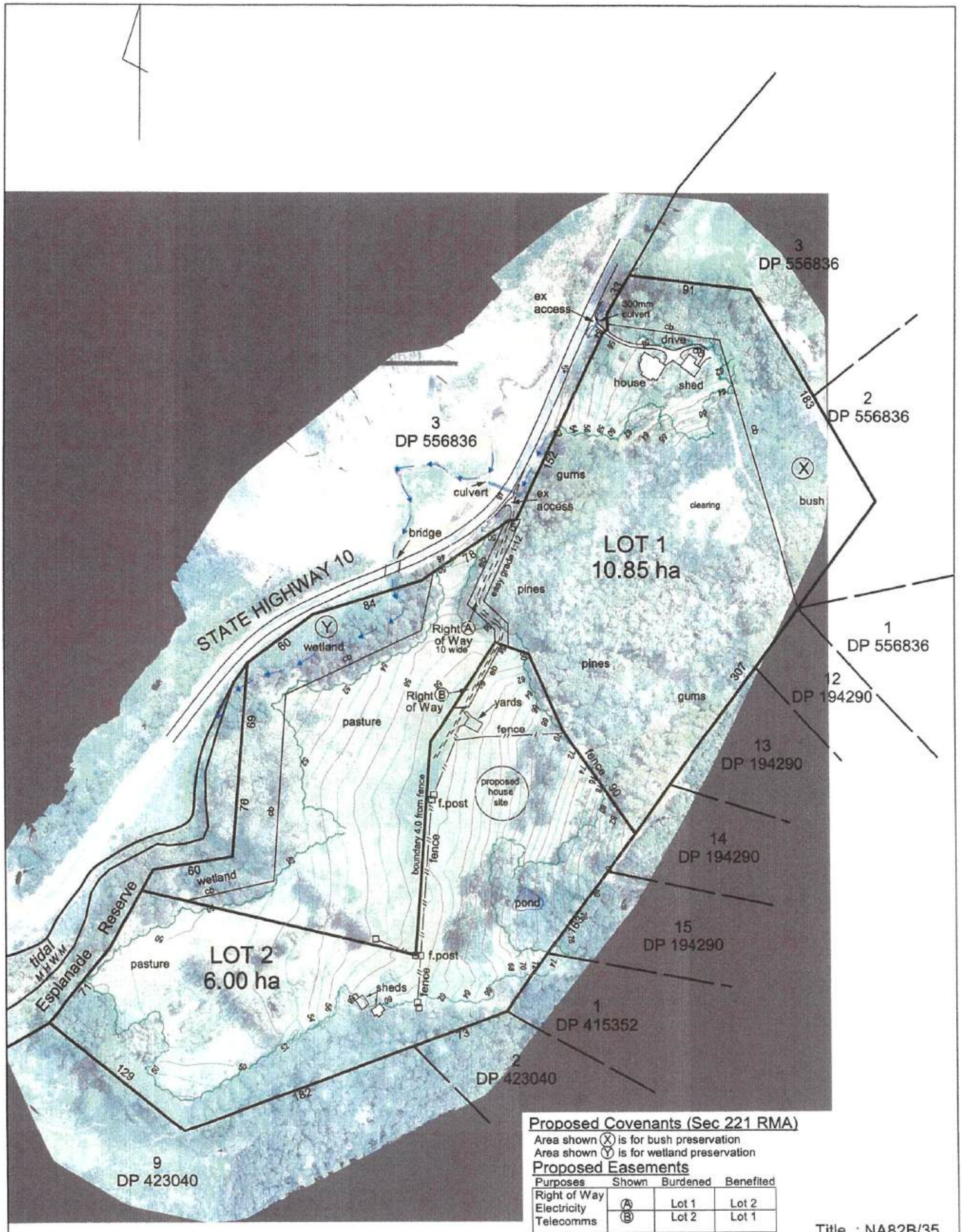
DONALDSONS
REGISTERED LAND SURVEYORS

LOT 1 & 2 BEING A PROPOSED SUBDIVISION OF LOT 1 DP 138817

Contour interval 1m
Scale @ A3 : 1:2500
Date : 21/03/2022
REF : 8086

PLAN


Boundary
Lot 1 DP 138817
4 shallow media filled trenches 27M long by 1 M wide with 2.5M minimum between centres laid to ground contour
Shallow swale cut off
100 percent reserve area
Well over the minimum 3M setback to boundary
Proposed building site
Distribution box
4500L twin chambered septic tank with filter
100 mm sewer pipe from building to septic tank
SCALE
0
10
20
30M
Parcels (LINZ)
Far North District boundary
Far North District Council
Far North Maps
0 0 0 0
km
Projection NZTM2000 Datum NZGD2000 Scale 1:564
DISCLAIMER
While the Far North District Council strives to keep the data at this service current, it may not be the most recent or most accurate data available. No reliance on the information contained on this map by any person is permitted. FNDC will not be liable for any omissions or errors of information contained on this map. FNDC recommends that persons seek specific advice on individual properties from FNDC and other specialist organisations which may hold more up to date or accurate information.



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Proposed Easements

Purposes	Shown	Burdened	Benefited
Right of Way Electricity Telecomms	(A) (B)	Lot 1 Lot 2	Lot 2 Lot 1

Notes:
Areas and measurements are subject to survey
For resource consent purpose only.

0 25 50 75 100 125 250

Title : NA82B/35
Total Area : 16.857ha
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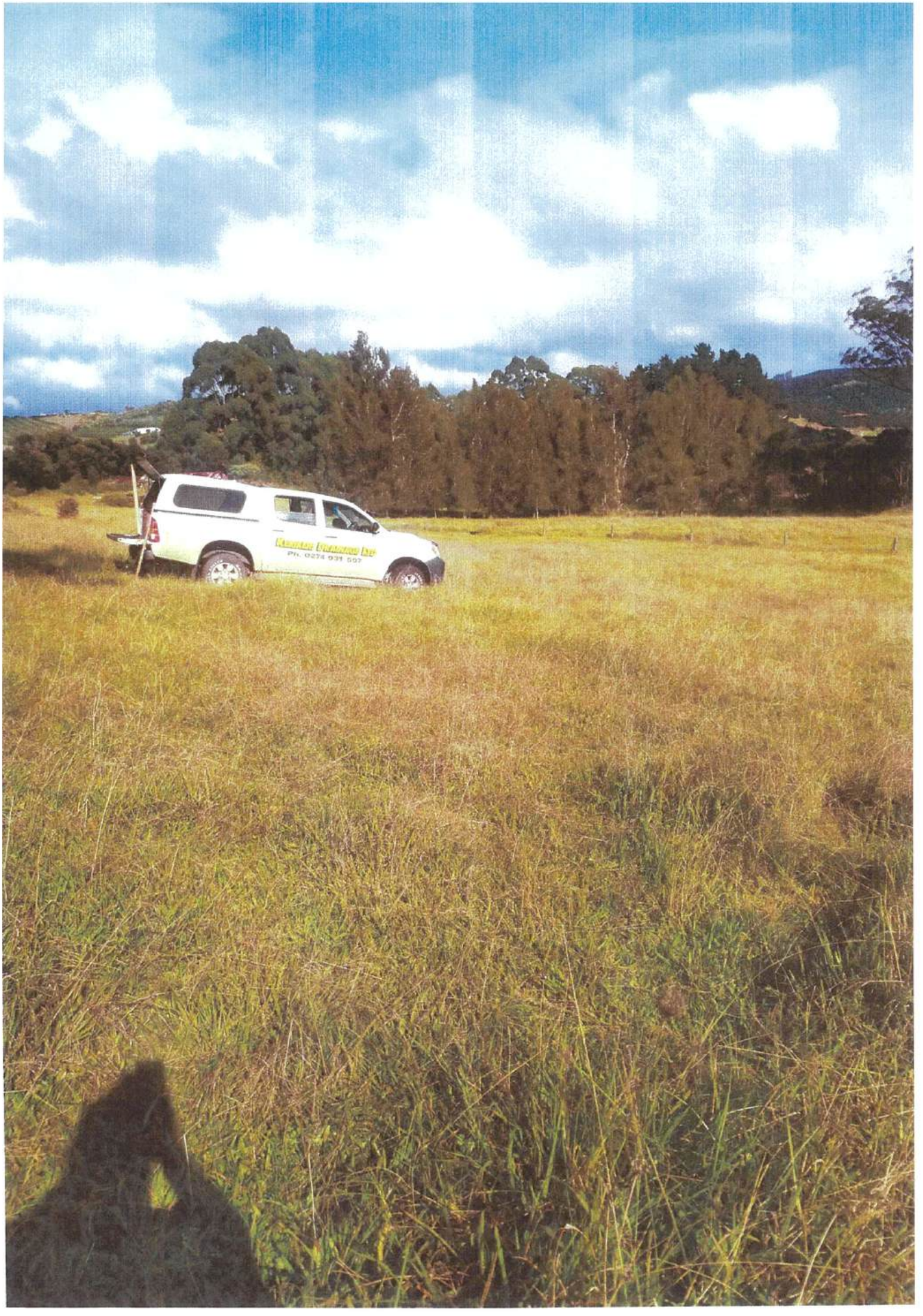
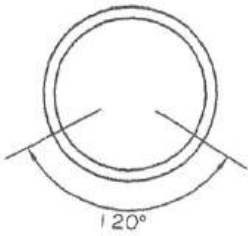
DONALDSONS
REGISTERED LAND SURVEYORS

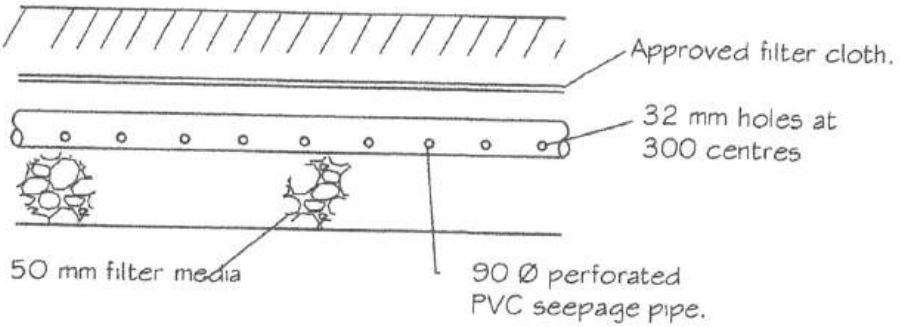
LOT 1 & 2 BEING A PROPOSED SUBDIVISION OF LOT 1 DP 138817

Contour interval :1m
Scale @ A3 : 1:2500
Date : 21/03/2022
REF : 8086

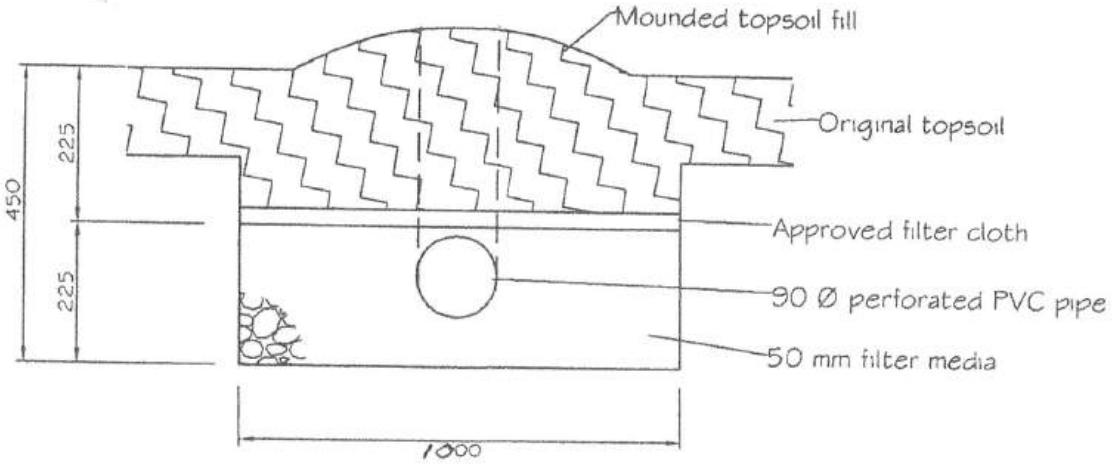




PERFORATION DETAILS



LONGITUDINAL SECTION



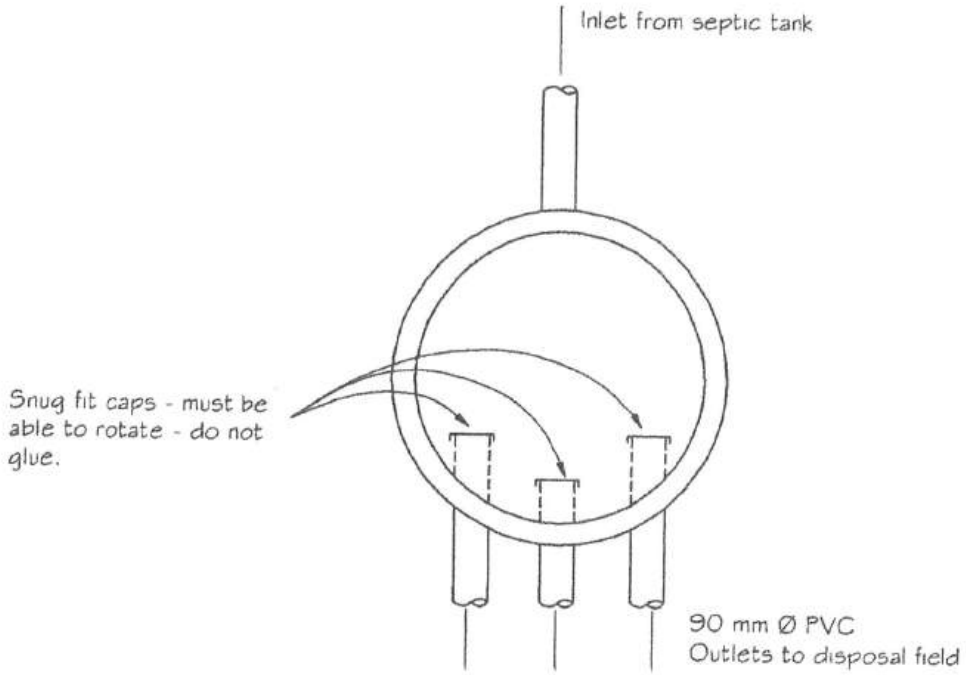
CROSS SECTION

NOTES

1. Distribution drains to be 90 mm Ø perforated PVC. Holes shall be 32 mm diameter at 300 mm centres and arranged as shown.
2. Distribution pipes to be laid flat or at gradient no greater than 1 in 200.
3. Sides and base of trench to be carefully scratched with a pointed tool before laying filter media.
4. Where two or more trenches are to be laid parallel, the trenches shall be spaced at 2.5 m centres.

TYPICAL SHALLOW SOAKAGE EFFLUENT DISPOSAL TRENCH

	ON-SITE EFFLUENT DISPOSAL Typical Shallow SoakageTrench	Ref:	Sheet:
		Scale: NTS	Drawn: Pip
		Date:	Checked:



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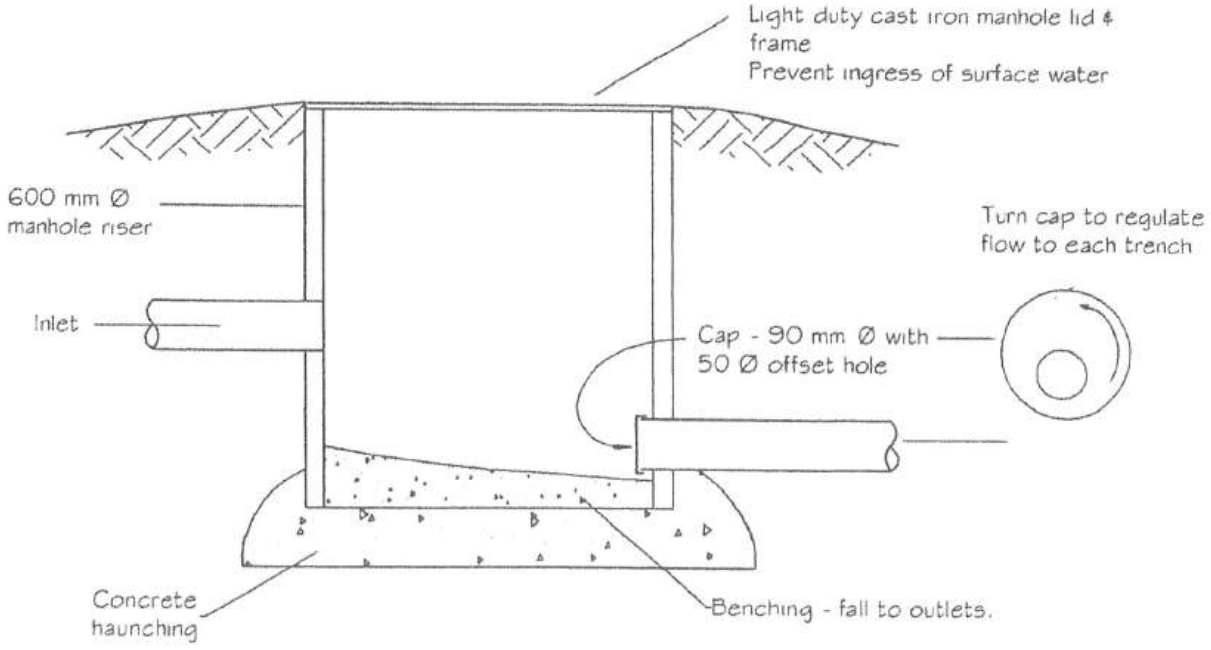

SECTION

STANDARD DISTRIBUTION BOX DETAIL

	ON-SITE EFFLUENT DISPOSAL Typical Distribution Box	Ref:	Sheet:
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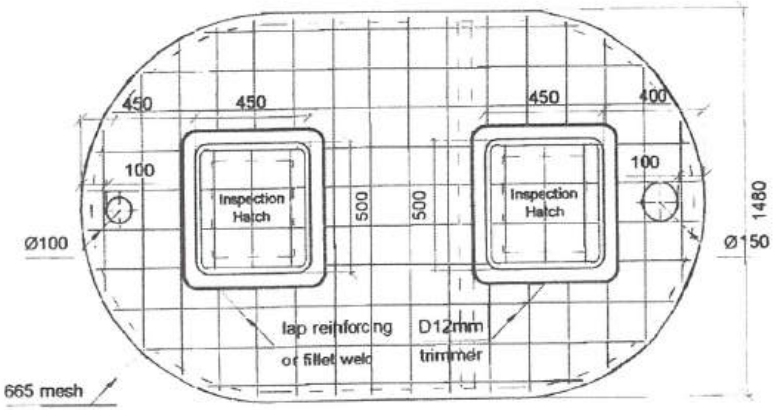
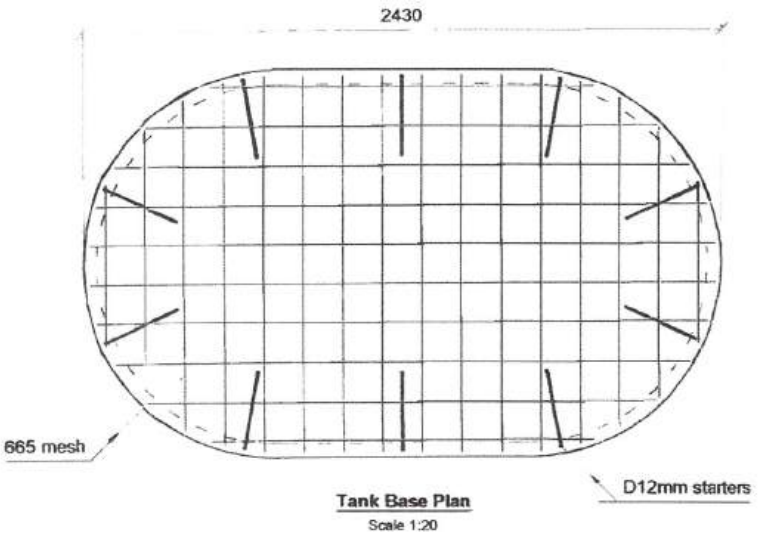


Tank Lid Plan
Scale 1:20



Tank Base Plan
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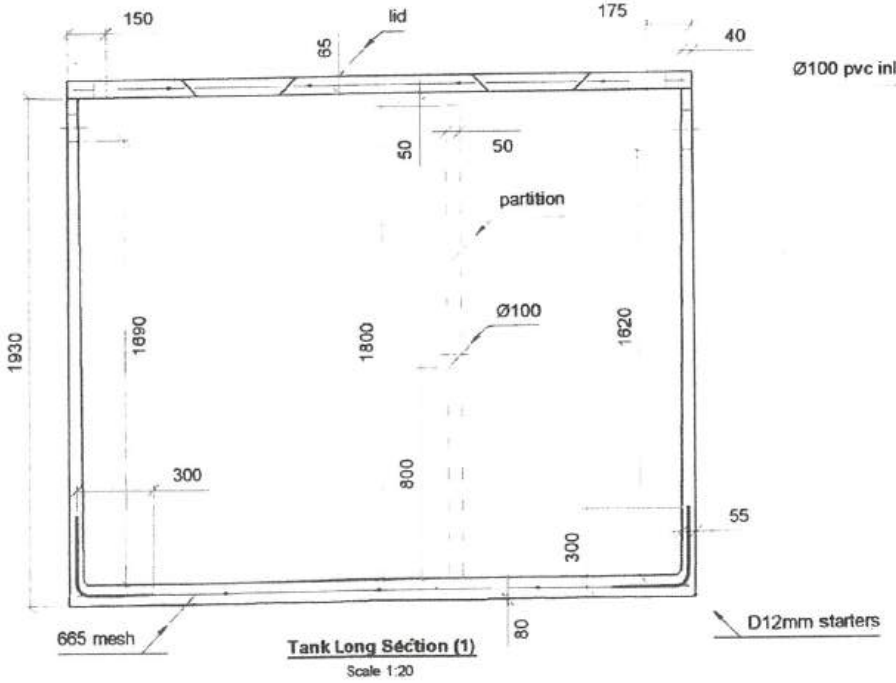
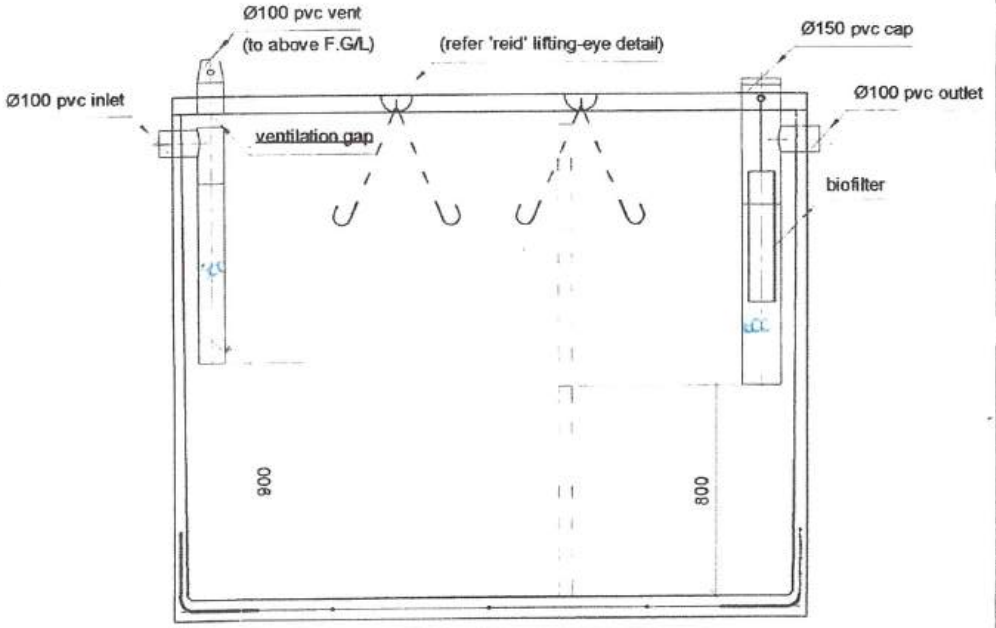


Tank Long Section (1)
Scale 1:20



Tank Long Section (2)
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SURVEYED		APPROVED	DATE
DESIGNED	C.L.	R.J.T.	Jun 07
DRAWN	D.H.		
TRACED	---		
CHECKED			

REVISION	CHANGES	CHECKED	DATE

CLIENT
AWWS Ltd

PROJECT
Pre-cast 4,500 litre Septic Tank

TITLE
Plans & Elevations

Check All Dimensions Prior to Any Fabrication

refer to Specifications & AS/NZS 1546.1:1998

Fraser Thomas
- CONSULTING ENGINEERS
- RESOURCE MANAGERS
- ENVIRONMENTAL CONSULTANTS
- SURVEYORS & PLANNERS

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SCALE: As Shown (A3)
CAD. FILE No.: J:\38008/38008.dwg
DRAWING No: 38008/1
REVISION:

ON-SITE DOMESTIC WASTEWATER MANAGEMENT

Advice to Home Owner/Occupier

Homeowners and occupiers are legally responsible to keep their on-site wastewater system in good working order. The following schedule gives advice on the use and maintenance of the system.

1. **Use of the System**

For the on-site wastewater system to work well there are some good habits to encourage and some bad habits to avoid:

1.1 In order to reduce sludge building up in the tank:

(i) Scrape all dishes to remove fats, grease etc, before washing.
(ii) Keep all possible solids out of the system.
(iii) Don't use a garbage grinder unless the system has been specifically designed to carry the extra load.
(iv) Don't put sanitary napkins, other hygiene products or disposable nappies into the system.

1.2 In order to keep the bacteria working in the tank and in the land-application area:

(i) Use biodegradable soaps.
(ii) Use a low-phosphorus detergent.
(iii) Use a low-sodium detergent in dispersive soil areas.
(iv) Use detergents in the recommended quantities.
(v) Don't use powerful bleaches, whiteners, nappy soakers, spot removers and disinfectants.
(vi) Don't put chemicals or paint down the drain.

1.3 Conservation of water will reduce the volume of effluent disposed to the land-application area, make it last longer and improving its performance. Conservation measures could include:

(i) Installation of water-conservation fittings.
(ii) Taking showers instead of baths.
(iii) Only washing clothes when there is a full load.
(iv) Only using the dishwasher when there is a full load.

1.4 Avoid overloading the system by spacing out water use evenly. For example not doing all the washing on one day and by not running the washing machine and dishwasher at the same time.

Maintenance

2.1 The primary wastewater-treatment unit (septic tank) will need to:

(i) Be desludged regularly i.e. every 3 to 5 years, or when scum and sludge occupy 2/3 of the volume of the tank (or first stage of a two-stage system).
(ii) Be protected from vehicles.
(iii) Have any grease trap cleaned our regularly.
(iv) Have the vent and/or access cover of the septic tank kept exposed.
(v) Have any outlet filter inspected and cleaned.

2.2 The land-application area needs protection as follows:-

(i) Where surface water diversion drains are required by the design, these need to be kept clear to reduce the risk of stormwater runoff entering the effluent soakage area.
(ii) No vehicles or stock should be allowed on trenches or beds.
(vi) Deep rooting trees or shrubs should not be grown over absorption trenches or pipes.

(viii) Any evapo-transpiration areas should be designed to deter pedestrian traffic.
(ix) The baffles or valves in the distribution system should be periodically (monthly or seasonally) changed to direct effluent into alternative trenches or beds, if required by the design.

2.3 Evapo-transpiration and irrigation areas should have their grass mowed and plants maintained to ensure that these areas take up nutrients with maximum efficiency.

2.4 For aeration treatment systems. Check equipment and:

(i) Follow the manufacturer's instructions for maintaining and cleaning pumps, siphons and septic tank filters.
(ii) Clean disc filters or filters screens on irrigation-dosing equipment periodically by rinsing back into the primary wastewater-treatment unit.
(iii) Flush drip irrigation lines periodically to scour out any accumulated sediment.

Auckland Regional Council Technical Sheet G-1
LIST OF WATER TOLERANT PLANTS SUITABLE FOR ON-SITE WASTEWATER DISPOSAL SYSTEMS

GENERAL MATTERS TO CONSIDER WHEN PLANTING A LAND DISPOSAL AREA:

Plants that are suitable for planting in moist conditions, such as those associated with wastewater land disposal fields need to be selected on the basis of both their tolerance for such moist conditions and for their potential for high level of growth/high transpiration of moisture in such conditions.

Standard lawn grass is a proven effective high transpiration plant species in such conditions, as are a large number of other plant species seen in typical domestic gardens.

Consideration needs to be given to effects of roots from plants and from trees in particular on wastewater distribution pipe networks/emitter lines in land application systems. Potential for root intrusion/disruption to the pipe system must be considered prior to selection and planting of a plant or tree species.

Advise on such matters for particular plant species can be obtained from garden centre specialists and landscaping consultants.

NATIVE PLANTS SUITABLE FOR MOIST CONDITIONS IN THE AUCKLAND REGION:

The following list covers native plant species are considered to be suitable for planting in moist conditions, such as those associated with wastewater disposal fields in Auckland situations. They are all tolerant or fond of moist conditions and all are native to the Auckland region. Much of this information has been adapted from one of the ARC Botanic Gardens advisory leaflets; "14 – New Zealand plants for wet places" and the list edited and reviewed by Dr. Rhys Gardner Consulting Botanist, Auckland War Memorial Museum (August 2004).

Grasses, ground covers, and other plants

***Astelia grandis* (swamp astelia)**
Large clump forming plant with bright green, flax-like foliage. Female plants produce upright panicles of orange berries in the centre of the plant. This endemic species will not tolerate eutrophic conditions and prefers peat soils.

***Blechnum novaezealandiae* (kiokio)**
Large, robust fern growing to 1 or even 2m, Hardy species that tolerates most conditions, but does best in well drained, shady areas.

Carex
There are many members of this genus which grow naturally in damp to wet areas. They all have quite fine drooping foliage and are vigorous in moist conditions. Most prefer very light shade. The following species have been identified for their suitability:

Carex dissita
Endemic species with dull green to reddish tufts often 0.5m tall (although this can vary). Tolerates a range of swampy habitats, but is also noted to grow on drier soils under forest cover.

Carex flagellifera
Endemic species with dense spreading reddish-brown tuffs to 0.5m tall. Prefers damp soil and full sun, but is noted to thrive in a variety of habitats including boggy pasture.

Carex geminata
Robust and vigorous endemic species that grows to 1.5m tall. Thrives in a range of wet habitats. Suitable for a larger area.

Carex lessoniana
Robust and vigorous endemic species that grows to 1.5m tall. Similar to *C.geminata* in that the species is spreading and suitable for a larger wet area.

***Carex secta* (purei, makura)**
Endemic species that exhibits tall spreading tussocks. Has been noted to grow to 3m tall, widespread in swampy areas. Useful in the creation of bird habitat.

Carex virgata

Endemic species that forms dense, light green tussocks up to 1m tall. Thrives in a variety of habitats including swamps, drain margins, seepages and wet pastures. Useful in the creation bird habitat.

Cortaderia fulvida (toetoe)

Branching from the base and forming a clump to 4m high. Long strap-shaped leaves with re orange coloured veins, flower heads cream yellow. New shoots exhibit pale waxy cover on l parts (unlike pampas grass) Prefers good drainage and semi-shade. Will struggle to compete dried out in summer.

***Cyperus ustulatus* (toetoe upoko-tangata, giant umbrella sedge)**

Vigorous leafy sedge growing to 1m in open damp places. Tolerates immersion in standing water within a range of habitats from seepages to wetlands.

Dicksonia squarrosa (wheki, tree fern)

Tree fern up to 7m tall that exhibits tolerance of wet open ground, and floods. Found to shelte and accumulate with other native plants. The base of the fern attracts biodiversity. Useful application to streambank and seepage habitats.

Elatostema rugosum (parataniwha)

Herbaceous plant up to 0.5m tall that spreads by rhizomes. Bronze coloured foliage with serra edge. Grows on moist sites in light to heavy shade. Intolerant of dry habitats.

Hypolepis dicksonioides

Large fern that prefers fertile moist, but well-drained ground, grows vigorously and spores into planted areas with abundance. Does however, die back during winter.

***Phormium tenax* (harakeke, flax)**

Fast growing clump-forming flax with large stiff leaves, to 3m. Full exposure and sun. Moist tc wet conditions. Does not have deep or wide roots. Easily propagated from split fans or grown from seed. Attracts birds, especially Tui.

Trees and shrubs

Consideration needs to be given to the effects of roots land application on wastewater distribution pipe networks. This problem can be more significant for large tree species.

***Carpodetus serratus* (putaputaweta, marbleleaf)**

Lowland forest tree up to 7m tall. Large bunches of cream coloured flowers appear in spring followed by black berries.

Coprosma areolata

Species that grows to 4m tall. Low tolerance to drought, with medium to high fertility.

Coprosma robusta (karamu, shining karamu)

Shrubs or small trees growing to 3m+, with glossy green leaves. Masses of orange-red fruit in autumn are attractive to birds. Hardy plant.

***Coprosma tenuicaulis* (swamp coprosma)**

Endemic species that grows to 3m tall. Leaves pale green with slender branches. Will tolerate a range of swampy to boggy habitats including standing water.

Cordyline australis (ti kouka, cabbage tree)

Palm-like in appearance with large heads of linear leaves and panicles of scented flowers. Sun to semi-shade. Prefers damp to moist soil. Grows eventually to 12m+ height.

Dacrycarpus dacrydioides (kahikatea, white pine)

Tree that grows to 40m. Moderately growing species, which prefers wetland and boggy environments. Application of this species must consider the possible impact of its root systems on the wastewater disposal field.

Geniostoma rupestre (hangehange)

Common forest shrub with pale green glossy foliage, growing to 2-3m. Tiny flowers give off strong scent in spring. Looks best in sunny position where it retains a bushy habit, and prefers well-drained soil.

Hebe stricta (koromiko)

Shrub or small tree growing to 2-5m in height. Natural forms have white to bluish flowers. Plant in full sun. Tolerates exposure. (NB Many cultivars and hybrids are available commercially, but these are all unsuitable for use near existing natural vegetation.)

Laurelia novae-zelandiae (pukatea)

Large upright tree (to 30m) with attractive bright green foliage and distinctive whitish bark . Fast growing and able to handle a wide variety of soils. It will tolerate periodic flooding, breathing roots develop in water logged soils. Can be grown from seed. Tolerant of some sun and frost. Not tolerant of wind.

Wilton Joubert Limited
09 945 4188
185 Waipapa Road,
Kerikeri

SITE	**2791 State Highway 10, Mangonui**
LEGAL DESCRIPTION	**Lot 2 DP 603728**
PROJECT	**New Dwelling**
CLIENT	**Coastal Homes (2008) Ltd**
REFERENCE NO.	**139565**
DOCUMENT	**Geotechnical Assessment Report**
STATUS/REVISION NO.	**FINAL – Issued for Building Consent**
DATE OF ISSUE	**3 April 2025**

Report Prepared For	Email
Coastal Homes (2008) Ltd	accounts@coastal-homes.co.nz

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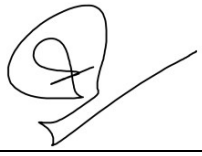
Approved by	**A. Asadi** *PhD (Geotech), CPEng, CMEngNZ*	Senior Geotechnical Engineer	afshin@wjl.co.nz	

1. EXECUTIVE SUMMARY

The following table is intended to be a concise summary which must be read in conjunction with the relevant report sections as referenced herein.

Development Type:	New dwelling.
Development Proposals Supplied:	No – Sketch Site and Floor Plans only.
NZS3604 Type Structure/s:	Yes.
Geology Encountered:	Undifferentiated Tangihua Complex in Northland Allochthon.
Surficial Topsoil Encountered:	Yes - 0.10m to 0.20m thick.
Overall Site Gradient in Proximity to Development:	Broad, gently moderate sloping nature at the building site, averaging 8° to 10°, and land downslope continues at similar inclinations or less for a considerable distance of approximately 225m.
Site Stability Risk:	Low Risk of deep-seated global instability or soil creep.
Liquefaction Risk:	Negligible risk of liquefaction susceptibility.
Suitable Foundation Type(s):	**Dwelling & Deck:** Bored, concrete encased tanalised timber pile foundations, supporting a timber subfloor.
Soil Bearing Capacity:	Yes – Comptent Natural Ground Only Geotechnical Ultimate Bearing Capacity = 300kPa.
NZBC B1 Expansive Soils Classification:	Class H – Moderately Expansive (y_s = 78mm). Refer report text for design guidance.
Minimum Bored Footing Embedment :	0.90m below finished ground levels and 0.30m into competent natural ground, whichever is deeper.
NZS1170.5:2004 Site Subsoil Classification:	Class C – Shallow soil stratigraphy.
Earthworks:	The client intends to undertake a cut-fill earthworks operation in the respective order of approximately 2.5m (including batter) and 1.2m. All cuts up to a height of 2.5m should be battered no steeper than 1V:3H (18°) and be appropriately dressed in a geotextile fabric. A cut-off drain should be installed above the cut platform and the toe of all cut batter excavations should be shaped to direct stormwater run-off away from the development area. All proposed cuts outside these imposed limits must be referred to WJL. All landscape fills up to a height of 1.2m should be battered no steeper than 1V:4H (14°). All proposed fills outside these imposed limits must be referred to WJL. Refer report text for further design guidance.
Consent Application Report Suitable for:	Not anticipated unless development proposals are revised.

2. INTRODUCTION

2.1. SCOPE OF WORK

Wilton Joubert Limited (WJL) was engaged by **Coastal Homes (2008) Ltd** (the client), to undertake a geotechnical assessment of ground conditions at the above site, where we understand, it is proposed to construct a new dwelling across the north-eastern end of the property.

For the purposes of this report, we have assumed the dwelling will comprise of a lightweight, timber framed structure, designed and constructed to apply loads generally in keeping with the requirements of NZS3604:2011.

2.2. SUPPLIED INFORMATION

At the time of preparing this report, we were supplied with the following development proposals:

- Sketch Floor Plan, prepared by the client (unreferenced and undated), and
- Sketch Site Plan, prepared by the client (unreferenced and undated). The Floor Plan is overlaid onto the Site Plan, thus depicting the building site location.

Any revision of the supplied drawings or overall development proposal with geotechnical implications should be referred to WJL for review.

3. SITE DESCRIPTION

The subject 5.965ha General Coastal zoned property is located off the southeastern side of State Highway 10 (SH10), accessed 3.9km southeast of the Waterfront Drive intersection, which contains the main Mangonui Business district. The allotment is irregular shaped, essentially displaying two prominent southwestern and northeastern portions of which, the latter is where the proposed dwelling is to be constructed.

Access to the building site is via an aggregate right-of-way (ROW) that dissects through the bounding allotment to the north, legally titled Lot 1 DP 603728. The 'S' shaped ROW is approximately 120m in length and initially trends southwest from SH10, before turning east for a short length and then trending due southwest again, ultimately traversing into the property along the northwestern boundary corner.

Topographically speaking, the proposed building site is set on a long, west facing, broad flank that falls at gently moderate grades down to SH10. Inclinations across the building site and land upslope to the boundary average 8° to 10°. The land downslope of the building site continues at similar inclinations for approximately 45m, before reducing to gentle grades of less than 6° for a considerable distance of approximately 180m through the bounding allotment to the west. Existing ground levels across the building site are set no less than approximately RL26m New Zealand Vertical Datum (NZVD).

No existing built development is present on-site. The site is largely covered in overgrown pasture, with bush covering the southern perimeter and small pockets of bush intermittently present across the southwestern portion of the property. Some minor bush has recently been cleared from the building site.

At the time of preparing this report, we note that the Far North District Council (FNDC) on-line GIS Water Services Map indicates that reticulated water, wastewater, and stormwater service connections are not available to the property.

The property is depicted on our appended Site Plan (Ref: 139565-G600) and in Figure 1 below.

Figure 1: Screenshot aerial view of the subject site from the FNDC on-line GIS Property and Land Map.
Property boundary is highlighted in cyan. 10m LiDAR contours are overlaid. Red ring approximately depicts building site location.

Figure 2: Site photograph looking north-westerly towards the proposed building site.
Vehicle is parked in the centre of the building site.

4. DEVELOPMENT PROPOSALS

Based on our review of the supplied development proposals, it is our understanding that the client proposes to construct a new single-level dwelling of approximately 120m² at the northeastern portion of the property.

The dwelling is to be found on a timber subfloor, suspended on bored, concrete encased, tanalised timber pile foundations, supporting lightweight timber framing, weatherboard cladding and a longrun steel roof. Additionally, a timber deck is to wrap the downslope, western leading-edge of the dwelling.

The finished floor level (FFL) of the dwelling is currently unknown. To facilitate the building platform and bounding amenity area, the client intends to undertake a cut-fill earthworks operation in the respective order of approximately 2.5m (including batter) and 1.2m. We have been advised that the dwelling will essentially be found on cut ground that will extend approximately 6.0m beyond the upslope perimeter of the dwelling. Landscape fill will be placed downslope of the dwelling in forming a level amenity area beyond the deck.

As a result, the principal objectives were to investigate and assess the suitability of potential foundation options for the site subsoils, not only primarily in terms of bearing capacity, but also for differential foundation movement.

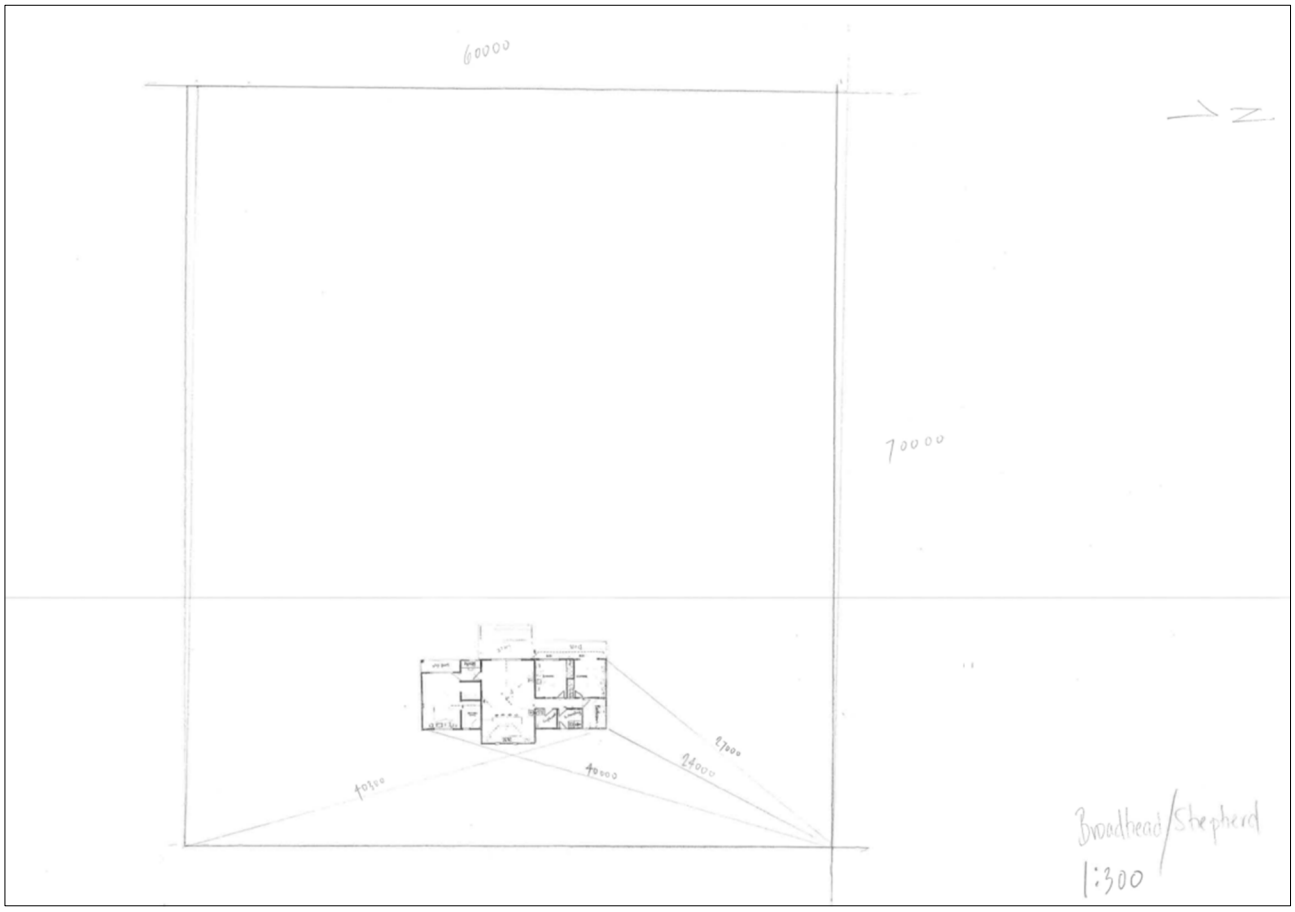


Figure 3: Screenshot of the Sketch Site Plan supplied by the client. North is to the right of the page.

Figure 4: Screenshot of the Sketch Floor Plan supplied by the client.

5. GEOLOGY

Local geology across the proposed building site and wider surrounding land upslope to the east is noted on the GNS Science New Zealand Geology Web Map, Scale 1:250,000, as; **Undifferentiated Tangihua Complex in Northland Allochthon**. These deposits are up to approximately 28 to 108 million years in age and described as; "*Mainly basalt pillow lava, with subvolcanic intrusives of basalt, dolerite and gabbro; locally incorporating siliceous mudstone*' (Ref: GNS Science Website).

Referring to the above mapping source, a geological boundary is present downslope of the proposed building site, to the west, with local geology across the land extending through to SH10 noted as; **OIS4 – OIS1 (Late Pleistocene to Holocene) Estuary River and Swamp Deposits.** These deposits are up to approximately 71,000 years in age and described as; "*Unconsolidated to poorly consolidated sand, peat, mud and shell deposits (estuarine, lacustrine, swamp, alluvial and colluvial.'*

Figure 5: Screenshot aerial view of the subject site and wider surrounding land from the New Zealand Geology Web Map. Red ring approximately depicts building site location and surrounding influential land.

6. GEOTECHNICAL INVESTIGATION

WJL undertook a Geotechnical investigation of the proposed building site and surrounding influential land on 31 March 2025, comprising of the following:

- A walkover inspection,
- Drilling three (no.) 50mm diameter hand auger boreholes (HA01 to HA03 inclusive) ranging between depths of 3.4m to 5.0m below existing ground level (BEGL), and
- A dynamic cone – scala penetrometer test (DCP) was extended through the invert of HA03 to a refusal depth of 5.7m BEGL, and
- On-site measurement of an electronic Zip Level and tape cross-section A-A' (Ref: 139565-G610). Further downslope, the cross-section has been supplemented with sourced 1.0m LiDAR contours.

The soil sample arisings from the HA's were logged in accordance with the "Field Description of Soil and Rock", NZGS, December 2005.

In-situ undrained Vane Shear Strengths were measured at intervals of depth and then adjusted in accordance with the New Zealand Geotechnical Society (NZGS); Guidelines for Handheld Shear Vane Testing, August 2001, with strengths classified in accordance with the NZGS Field Classification Guidelines; Table 2.10, December 2005. The materials identified are described in detail on the appended records, together with the results of the various tests undertaken, plus the groundwater conditions as determined during time on site.

The HA and cross-section locations are depicted on our appended Site Plan (Ref: 139565-G600) and the logged and draughted results are appended to this report.

7. GEOTECHNICAL FINDINGS

The following is a summary of the ground conditions encountered in our investigation. Please refer to the appended logs for greater detail.

7.1. TOPSOIL

Surficial TOPSOIL layers of 0.10m to 0.30m thickness were found in all three HA's.

7.2. NATURAL GROUND

The underlying natural deposits encountered on-site were consistent with our expectations of Undifferentiated Tangihua Complex in Northland Allochthon deposits, generally comprising of very stiff clayey SILT, slightly clayey SILT and SILT deposits until termination.

From a depth of 2.4m BEGL in HA03, deposits slightly reduced in strength, becoming assessed as stiff, before increasing in strength again by 3.2m BEGL, thus becoming assessed as very stiff. Additionally, from a depth of 4.0m BEGL in HA02, subsoils became very stiff to hard in nature.

Measured in-situ, BS1377 adjusted peak Shear Vane Strengths ranged between 85kPa and 202kPa or greater than 197Pa, the latter being where soil strength was in excess of the shear vane capacity, or the vane was not able to penetrate into the soil (UTP).

Where able to be determined, peak to remould Vane Shear Strength ratios ranged between 1.7 and 6.7, indicating the underlying subsoils are generally 'Moderately Sensitive to Sensitive.'

Blow counts per 0.10m ground penetration during the DCP undertaken from a depth of 3.4m BEGL, at the invert of HA03, ranged between 3 and 4 to a depth of 3.9m BEGL, 6 and 7 to a depth of 4.9m BEGL and 11 to 15 to a depth of 5.6m BEGL, before terminating on a refusal count of 20+ at a depth of 5.7m BEGL.

Figure 6: Site photograph of the typical HA soil arisings encountered (HA02).

7.3. GROUNDWATER

Groundwater was not found within all three HA's. It should be noted that our fieldwork investigation was undertaken during a rainfall event. Based on the above, together with the topography of the wider surrounding land, it is generally envisaged that groundwater levels will not be significantly elevated beneath the proposed building site.

7.4. SUMMARY TABLE

The following table summarises our inferred stratigraphic profiling:

Investigation Hole ID	Termination Depth (m)	Depth to Base of Non-Engineered Fill / Surficial Topsoil(m)	Vane Shear Strength Range (kPa) within Natural Ground	Standing Groundwater Depth (m)
HA01	5.0	0.10	107 - 197+	NE
HA02	4.5	0.20	104 - UTP	NE
HA03	3.4	0.10	85 - 197	NE

Note: UTP = Unable to Penetrate, NE = Not Encountered

8. GEOTECHNICAL ASSESSMENTS

8.1. SITE STABILITY

On the basis of:

- No obvious evidence of deep-seated instability within the immediate vicinity of the building site or surrounding influential land,
- Broad, gently moderate sloping nature of the building site, averaging 8° to 10°, and land downslope which continues at similar inclinations or less for a considerable distance of approximately 225m,
- Generally, very stiff to hard, measured in-situ Vane Shear Strengths recorded during our investigation and high DCP blow counts measured at the invert of HA03, ultimately refusing at a depth of 5.7m BEGL, and
- Lack of groundwater evidence within our HA's,

we perceive the risk of deep-seated global slope instability or soil creep impacting the proposed development to be significantly low.

8.2. LIQUEFACTION ASSESSMENT

Liquefaction is a natural phenomenon whereby prolonged seismic shaking induces an increase in pore water pressure, which in turn decreases the effective stress of silt/fine sand-like soil deposits. Excess pore water pressure (EPWP) can build to such an extent that the effective stress of the underlying soil is reduced to near zero, whereby the soils no longer carry shear strength and behave as a semi solid/fluid. In such a scenario, excess pore water pressures will follow the path of least resistance to eventual dissipation, which can lead to the migration of liquefied soils towards the surface, or laterally towards a free-face (edge of slope, riverbank, etc.) or layers that have not yet undergone liquefaction. Examples of these phenomena were experienced in Christchurch and the greater Canterbury Region during the Canterbury Earthquake Sequence between 2010-2011.

At the time of preparing this report, we note that the FNDC on-line GIS Liquefaction Vulnerability Map indicates that the proposed development location lies within an '*Unlikely*' zone.

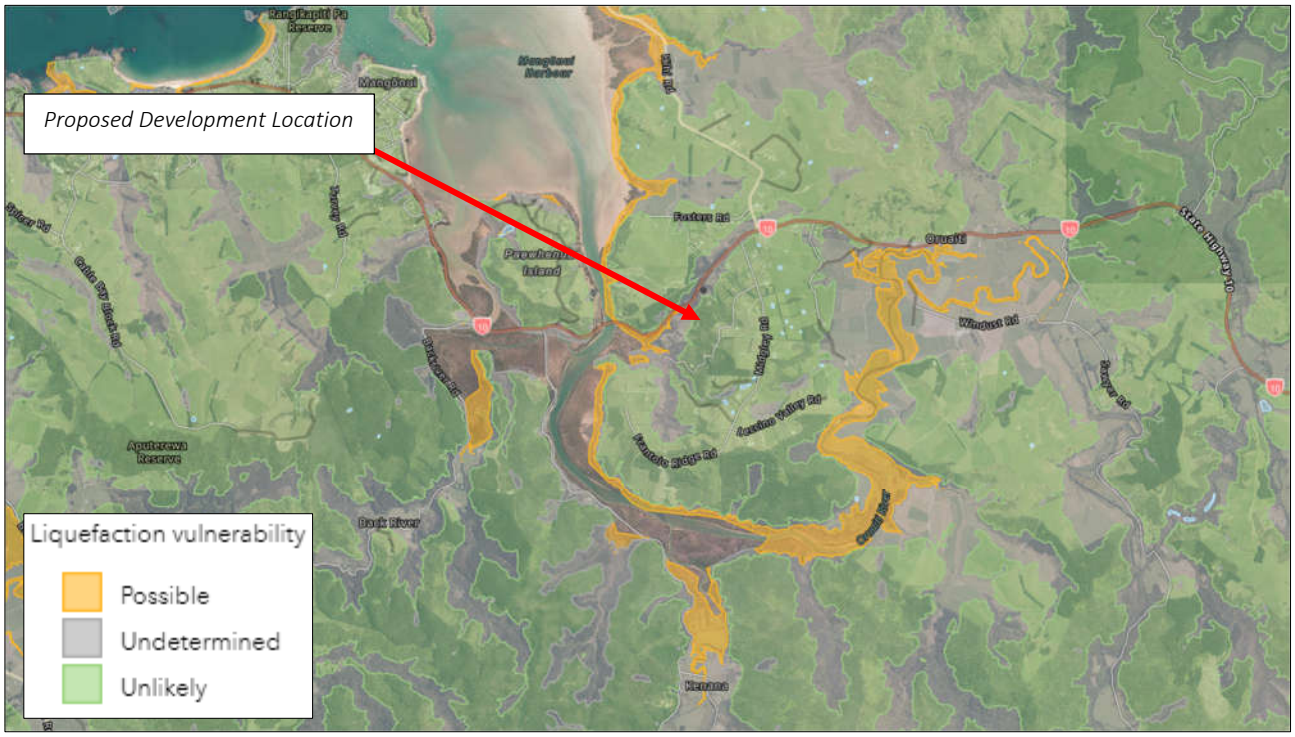


Figure 7: Screenshot aerial view from the FNDC on-line GIS Liquefaction Vulnerability Map.

A screening procedure based on geological criteria was adopted to examine whether the proposed development might be susceptible to liquefaction, with observations as follows:

- There are no known active faults traversing through the property or wider surrounding land,
- There is no historical evidence of liquefaction at the property,
- The building site is located on an elevated location, set no less than RL26m NZVD, with good water shedding characteristics,
- Generally, very stiff to hard, in-situ measured Vane Shear Strength recorded during our investigation and high DCP blow counts measured at the invert of HA03, ultimately refusing at a depth of 5.7m BEGL,
- Lack of groundwater evidence within our HA's,
- The subsoils beneath the building site comprise of cohesive soils that are not generally considered susceptible to liquefaction, and
- The subsoils beneath the building site are underlain by Undifferentiated Tangihua Complex in Northland Allochthon deposits, being 28 to 108 million years in age, allowing for adequate consolidation in comparison to younger, Holocene age material (10,000 years).

Based on the above, we conclude that the subsoils across the property have a negligible risk of liquefaction susceptibility and liquefaction damage is therefore considered to be unlikely.

9. CONCLUSIONS AND RECOMMENDATIONS

On the basis of the above findings, we consider that the risk of moderate to deep-seated slope instability impacting on the proposed development to be non-existent, provided all recommendations contained within our report are implemented in design and construction.

With regard to the Building Act 2004; Sections 71-72, we believe on reasonable grounds that:

i. The current proposed site development and associated building work within the relayed building platform should not accelerate, worsen, or result in slippage or subsidence on the land on which the building work is to be carried out or any other property, and

ii. The land beneath the building footprint and surrounding immediate amenity areas of the relayed building platform are neither subject nor likely to be subject to slippage or subsidence, provided the development is undertaken in accordance with the recommendations and guidance of this report.

9.1. FOUNDATIONS

The dwelling is to be found on a timber subfloor, suspended on bored, concrete encased, tanalised timber pile foundations. Additionally, a timber deck is to wrap the downslope, western leading-edge of the dwelling.

9.1.1. SHALLOW FOUNDATION BEARING CAPACITY

The following bearing capacity values are considered to be appropriate for the design of shallow foundations, subject to founding directly within or on competent natural ground, for which careful Geo-Professional inspections of the subgrade should be undertaken to check that the underlying conditions are in keeping with our expectations:

Geotechnical Ultimate Bearing Capacity	300 kPa
ULS Dependable Bearing Capacity (Φ=0.5)	150 kPa

When finalising development proposals, it should be checked that all foundations lie outside 45° envelopes rising up from 0.50m below the invert of service trenches, unless such foundation details are found by specific engineering design (SED) to be satisfactory. Deeper foundation embedment with piles may be required for any surcharging foundations.

Additionally, all western leading-edge dwelling and decking foundations must bypass all landscape fill extents in ensuring all building loads are transferred sufficiently into competent natural ground.

During inspections, it is important to exercise caution to verify that the natural ground meets the recommended bearing capacity mentioned in this report. This is crucial for preserving structural integrity.

9.1.2. SHALLOW FOUNDATIONS ON EXPANSIVE SOILS

In the absence of site-specific laboratory testing, we recommend a primary conservative classification of Class H (Highly) expansive soils, as defined in clause 7.5.13.1.2, and introduced to NZS3604 by Amendment 19 of NZBC Structure B1/AS1.

- NZBC B1 Expansive Soil Class H
- Upper Limit of Characteristic surface movement (ys) 78mm

For shallow foundations, possessing sufficient lateral stability is crucial. Adequate lateral stability is essential to protect the foundation's integrity and prevent any potential damage to the structure and adjacent elements.

Soil expansiveness can be aided in mitigation as follows:

- For Bored, Concrete Encased, Timber Pile Foundations:
  - Minimum embedment of 0.90m below finished ground levels (BFGL) and 0.30m into competent natural ground, whichever is deeper.

9.1.3. NZS1170.5:2004 SITE SUBSOIL CLASSIFICATION

We consider the proposed buildings to be underlain with a Class C – Shallow Soil stratigraphy.

9.2. SITE EARTHWORKS

The client intends to undertake a cut-fill earthworks operation in the respective order of approximately 2.5m (including batter) and 1.2m. We have been advised that the dwelling will essentially be found on cut ground that will extend approximately 6.0m beyond the upslope perimeter of the dwelling. Landscape fill will be placed downslope of the dwelling in forming a level amenity area beyond the deck.

Generally, and as directed by a suitably experienced engineer, all earthworks should be undertaken in accordance with the following standards:

- NZS4431:2022 “Code of Practice for Earth Fill Residential Development”,
- Section 2 “Earthworks & Geotechnical Requirements” of NZS4404:2010 “Land Development and Subdivision Infrastructure”, and
- Chapter 2 “Site Development Suitability (Geotechnical and Natural Hazards” of the Far North District Council Engineering Standards, (Version 0.6 issued May 2023).

9.3. SITE PREPARATION

The competency of the exposed subgrade at the invert of all bored footings should be confirmed by a Geo-Professional to confirm that the underlying natural subgrade conditions are in keeping with the expectations of this report.

Without such inspections being undertaken, a Chartered Professional Geotechnical Engineer is unable to issue a Producer Statement - Construction Review (PS4) – which could result in the failure to meet Building Consent requirements as set by Council as conditions of consent.

9.4. SUBGRADE PROTECTION

All pole inverts should be poured as soon as possible once inspected by a Geo-Professional or covered with a protective layer of site concrete.

9.5. LANDSCAPE FILL COMPACTION

Although not requiring engineering certification, site benching across any proposed site-won, cohesive fill area downslope of the building site should be carried out generally in accordance with Section 4 of NZS4431:2022 and in following Figure 8 below. Any water seepage must also be drained in accordance with NZS4431:2022.

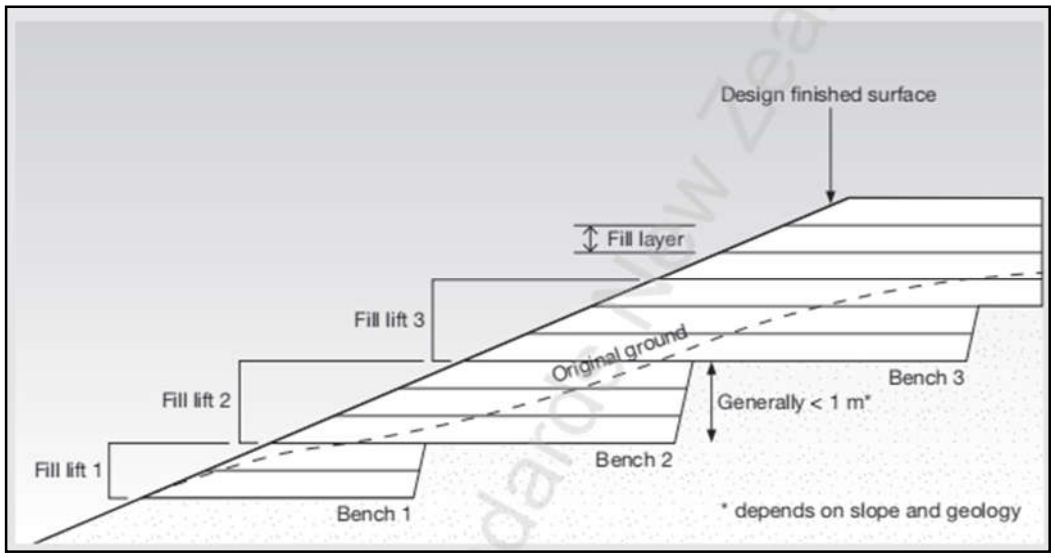


Figure 8: Typical Benching Detail, Figure 1 – Section C4.3.4 (NZS4431:2022).

The compaction of cohesive fill comes with the inherent risks of high-water content and inconsistency of soil, which can, more often than not, lead to poor quality compaction, especially if imported material is utilised.

As a general guide, we recommend placing cohesive fill in loose lift thicknesses of around 0.15m to 0.20m subject to being compacted using a suitably sized pad-foot/tamping (sheep-foot) roller. Attempted compaction with tracked machines and/or loaded trucks is not acceptable.

It is important to note that placing fill has the potential to cause the underlying soil to behave in an undrained manner. The resulting increase in pore water pressure may reduce effective stress and lead to instability.

It is important that the moisture content of the material is at close to an optimum level, in order to achieve successful compaction. Based on our experience with similar materials, we anticipate the optimum moisture content for effective compaction to be between 30 to 40%. Although materials can still be compacted if wet or dry of this value, the results may not be acceptable and could require conditioning/remediating by drying or wetting as appropriate.

In order to provide the most flexibility for likely variations in soil types, it is recommended that earthworks compaction control should be based on the maximum allowable air voids/minimum allowable shear strength criteria, as follows:

	Air Voids Percentage (as defined in NZS 4402:1986)		Undrained Shear Strength (Measured in-situ by IANZ calibrated vane)	
	Maximum Average Value %	Maximum Single Value %	Minimum Average Value kPa	Minimum Single Value kPa
Cohesive Fill	10	12	140	110

Note: The average value shall be determined over any ten consecutive tests.

9.6. TEMPORARY & LONG-TERM EARTHWORK BATTERS

We recommend that earthworks only be undertaken during prolonged forecasted periods of dry weather conditions.

During times of inclement weather, the earthworks site should be shaped to assist in stormwater run-off, as saturating site soils could result in a reduction of bearing capacities.

All cuts up to a height of 2.5m should be battered no steeper than 1V:3H (18°) and be appropriately dressed in a geotextile fabric. A cut-off drain should be installed above the cut platform and the toe of all cut batter excavations should be shaped to direct stormwater run-off away from the development area. All proposed cuts outside these imposed limits must be referred to WJL.

All landscape fills up to a height of 1.2m should be battered no steeper than 1V:4H (14°). All proposed fills outside these imposed limits must be referred to WJL.

All exposed batters and soils should be re-grassed and/or planted as soon as practicable.

The structural designer and building contractor should ensure that a satisfactory Factor of Safety (FoS) against ground instability is available at all stages of the development.

9.7. GENERAL SITE WORKS

We stress that all works should be undertaken in a careful and safe manner so that Health & Safety is not compromised, and that suitable Erosion & Sediment control measures should be put in place. Any stockpiles placed should be done so in an appropriate manner so that land stability and/or adjacent structures are not compromised.

Furthermore:

- All works must be undertaken in accordance with the Health and Safety at Work Act 2015,
- Any open excavations should be fenced off or covered, and/or access restricted as appropriate,
- The location of all services should be verified at the site prior to the commencement of construction,
- The Contractor is responsible at all times for ensuring that all necessary precautions are taken to protect all aspects of the works, as well as adjacent properties, buildings and services, and
- Should the contractor require any site-specific assistance with safe construction methodologies, please contact WJL for further assistance.

9.8. LONG-TERM FOUNDATION CARE & MAINTENANCE

The recommendations given above to mitigate the risk of expansive soils do not necessarily remove the risk of external influences affecting the moisture in the subgrade supporting the foundations.

All owners should also be aware of the detrimental effects that significant trees can have on building foundation soils, viz:

- Their presence can induce differential consolidation settlements beneath foundations through localised soil water deprivation, or conversely, and
- Foundation construction too soon after their removal can result in soil swelling and raising foundations as the soil rehydrates.

To this end, care should be taken to avoid:

- Having significant trees positioned where their roots could migrate beneath the house foundations, and
- Constructing foundations on soils that have been differentially excessively desiccated by nearby trees, whether still existing, or recently removed.

We recommend that homeowners make themselves familiar with the appended Homeowners' Guide published by CSIRO, with particular emphasis on maintenance of drains, water pipes, gutters, and downpipes.

10. STORMWATER CONTROL

Uncontrolled stormwater flows must not be allowed to run onto or over site slopes, or to saturate the ground, so as to adversely affect soil strength.

All stormwater runoff from the dwelling roof, cut batters and paved or aggregate areas should be appropriately collected and be discharged to a stable disposal point that is well clear of the building site.

Under no circumstances should concentrated overflows from any source be discharged into or onto the ground in an uncontrolled fashion.

11. UNDERGROUND SERVICES

Underground services, public or private, mapped, or unmapped, of any type may be present, hence we recommend staying on the side of caution during the commencement of any work within the proposed development area.

12. FUTURE CONSTRUCTION MONITORING

The foregoing statements are Professional Opinion, based on a limited collection of information, some of which is factual, and some of which is inferred. Because soils are not a homogeneous, manufactured building component, there always exists a level of risk that inferences about soil conditions across the greater site, which have been drawn from isolated "pin-prick" locations, may be subject to localized variations. Generally, any investigation is deemed less complete until the applicability of its inferences and the Professional Opinions arising out of those are checked and confirmed during the construction phase, to an appropriate level.

It is increasingly common for the Building Consent Authorities to require a Producer Statement – Construction (PS4) which is an important document. The purpose of the PS4 is to confirm the Engineers' Professional Opinion to the BCA that specific elements of construction, such as the verification of design assumptions and soil parameters (NZBC clause B1/VM4 2.0.8), are in accordance with the approved Building Consent and its related documents, which should include the subject Geotechnical Report. Where site works will involve the placement of fill, the PS4 should reference NZBC clause B1/VM1 10.1.

For WJL to issue a PS4 to meet the above clauses of the NZBC, we will need to carry out the site inspections as per the Building Consent and Council requirements.

We require at least 48 hours' notice for site inspections.

Site inspections should be undertaken by a Chartered Professional Geotechnical Engineer or their Agent, who is familiar with both this site and the contents of this Geotechnical Report.

Prior to works commencement, the above Engineer should be contacted to confirm the construction methodologies, inspection, and testing frequency.

The primary purpose of the site inspections is to check that the conditions encountered are consistent with those expected from the investigations and adopted for the design as discussed herein. If anomalies or uncertainties are identified, then further Professional advice should be sought from the Geo-Professional, which will allow the timely provision of solutions and recommendations should any engineering problems arise.

Upon satisfactory completion of the above work aspects, WJL would then be in a position to issue the PS4 as required by Council.

At this time, the following Geotechnical site inspections and testing should include, but are not limited to:

- Pre-pour bored footings.

13. LIMITATIONS

We anticipate that this report is to be submitted to Council in support of a Building Consent application.

This report has been commissioned solely for the benefit of our client, **Coastal Homes (2008) Ltd**, in relation to the project described herein, and to the limits of our engagement, with the exception that the local Territorial Authority may rely on it to the extent of its appropriateness, conditions and limitations, when issuing the subject consent. Any variations from the development proposals described herein as forming the basis of our appraisal should be referred to us for further evaluation. Copyright of Intellectual Property remains with WJL, and this report may NOT be used by any other entity, or for any other proposals, without our written consent. Therefore, no liability is accepted by this firm or any of its directors, servants, or agents, in respect of any other geotechnical aspects of this site, nor for its use by any other person or entity, and any other person or entity who relies upon any information contained herein does so entirely at their own risk. Where other parties may wish to rely on it, whether for the same or different proposals, this permission may be extended, subject to our satisfactory review of their interpretation of the report.

The recommendations provided in this geotechnical report are in accordance with the findings from our shallow investigation. However, it is important to acknowledge that additional refinement of the investigation and analysis may be necessary to meet the specific requirements set by the local council.

Although this report may be submitted to a local authority in connection with an application for a consent, permission, approval, or pursuant to any other requirement of law, this disclaimer shall still apply and require all other parties to use due diligence where necessary and does not remove the necessity for the normal inspection of site conditions and the design of foundations as would be made under all normal circumstances.

Thank you for the opportunity to provide our service on this project, and if we can be of further assistance, please do not hesitate to contact us.

Yours faithfully,

WILTON JOUBERT LIMITED

Enclosures:

Site Plan (1 sheet)
Cross-section A-A' (1 sheet)
Hand Auger Borehole Records (3 sheets)
'Foundation Maintenance & Footing Performance' sheet BTF18: A Homeowner's Guide, published by CSIRO (4 sheets)
Construction Monitoring (1 sheet)

SITE LOCATION

IMAGE SOURCE:
FAR NORTH DISTRICT COUNCIL LOCAL MAPS

HA 01
HA 02
HA 03
A G610
A' G610
20.0
21.0
22.0
23.0
24.0
25.0
26.0
27.0
28.0
29.0
30.0

0m 5m 20m 40m
SCALE 1:400

SYMBOL KEY	
HA	HAND AUGER LOCATIONS
A G610 / A' G610	CROSS SECTION LOCATION

GENERAL NOTES

1. SITE PLAN IS ONLY INDICATIVE FOR CONCEPT DESIGN. NO MEASUREMENTS MAY BE TAKEN FROM DRAWING.
2. BACKGROUND INFORMATION, CONTOURS & LOCAL SERVICES PROVIDED BY THE CLIENT & EXTRACTED FROM LOCAL COUNCIL GIS.
3. ALL DIMENSION AND LEVELS TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE RELEVANT STANDARDS AND MUST BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH AND SAFETY AT WORK ACT 2015.

WILTON JOUBERT
Consulting Engineers
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Christchurch: 021 824 063 Wanaka: 03 443 6209
www.wiltonjoubert.co.nz

ISSUE / REVISION

No.	DATE	BY	DESCRIPTION
A	MAR '25	SJP	ISSUED WITH GEOTECHNICAL REPORT

DESIGNED BY:	GMB
DRAWN BY:	GMB
CHECKED BY:	SJP
SURVEYED BY:	N/A

SERVICES NOTE

WHERE EXISTING SERVICES ARE SHOWN, THEY ARE INDICATIVE ONLY AND MAY NOT INCLUDE ALL SITE SERVICES. WILTON JOUBERT LTD DOES NOT WARRANT THAT ALL, OR INDEED ANY SERVICES ARE SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING SERVICES PRIOR TO AND FOR THE DURATION OF THE CONTRACT WORKS.

GEOTECHNICAL

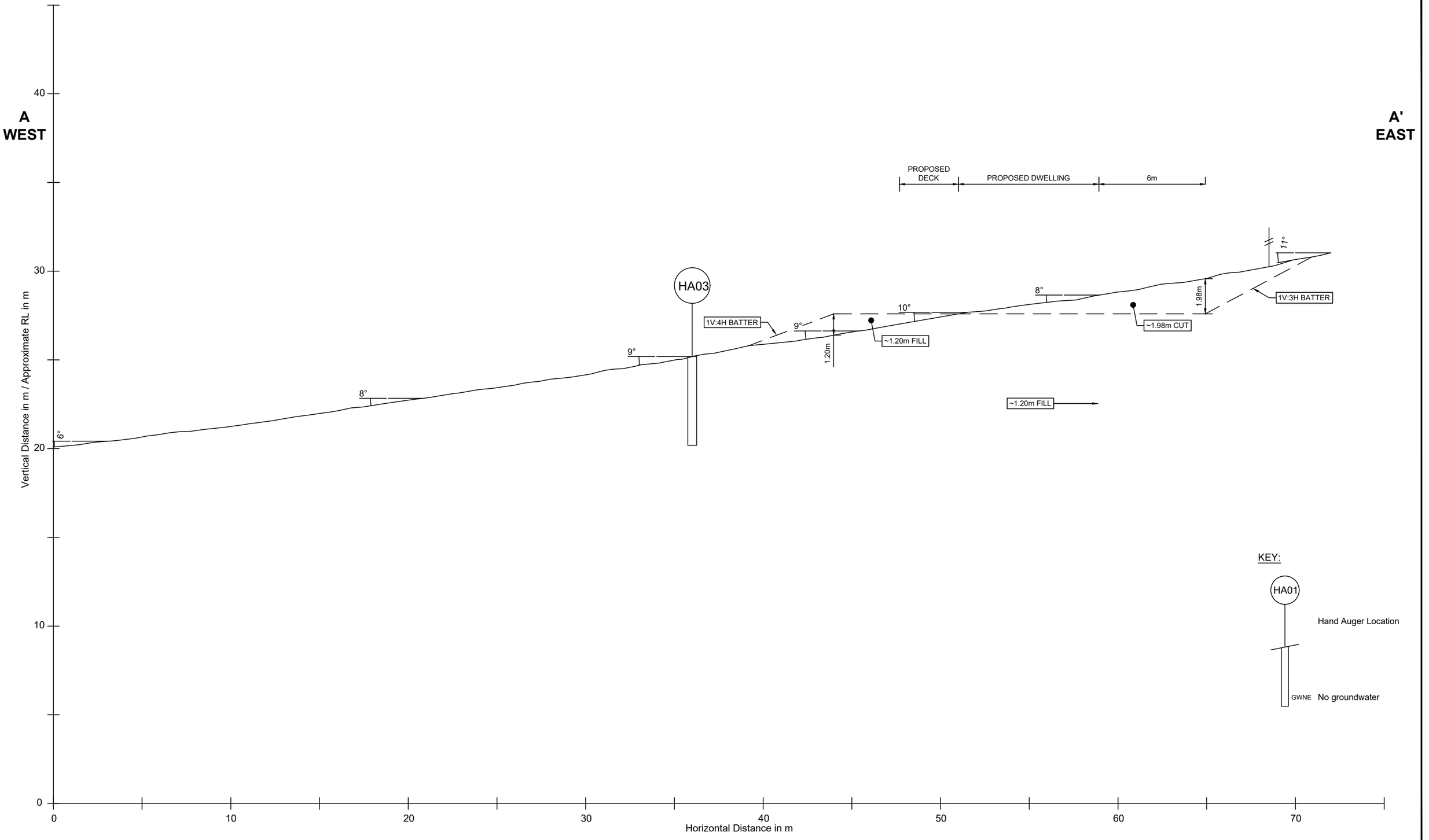
DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE:
SITE PLAN

PROJECT DESCRIPTION:
PROPOSED DWELLING

PROJECT TITLE:
LOT 2 DP 603728
2791 STATE HIGHWAY 10
MANGONUI
NORTHLAND

ORIGINAL DRAWING SIZE: A3	OFFICE: KERIKERI
DRAWING SCALE: 1:400	CO-ORDINATE SYSTEM: NOT COORDINATED
DRAWING NUMBER: 139565-G600	ISSUE: A



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ISSUE / REVISION			
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DESIGNED BY: GMB
DRAWN BY: GMB
CHECKED BY: SJP
SURVEYED BY: N/A

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GEOTECHNICAL

DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE:
CROSS SECTION A-A'

PROJECT DESCRIPTION:
PROPOSED DWELLING

PROJECT TITLE:
LOT 2 DP 603728
2791 STATE HIGHWAY 10
MANGONUI
NORTHLAND

ORIGINAL DRAWING SIZE:	OFFICE:
A3	KERIKERI
DRAWING SCALE:	CO-ORDINATE SYSTEM:
1:200	NOT COORDINATED

DRAWING NUMBER: 139565-G610
ISSUE: A

HAND AUGER : HA01

CLIENT: Coastal Homes (2008) Ltd
PROJECT: New Dwelling
SITE LOCATION: 2791 State Highway 10, Mangonui

JOB NO.: 139565 **SHEET:** 1 OF 1
START DATE: 31/03/2025 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: 1994 **ELEVATION:** Ground
FACTOR: 1.41 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
Top soil	TOPSOIL, dark brown, dry to moist.		0.0						
Undifferentiated Tangihua Complex in Northland Allochthon	NATURAL: Clayey SILT, yellowish brown, very stiff, dry to moist, no to low plasticity.		0.2						
			0.4		197+	-	-		
			0.6						
			0.8						
	0.8m: Red streaks, low plasticity.				197+	-	-		
	1.0m: Red mottles, moist, low to moderate plasticity.		1.0						
			1.2						
			1.4		197+	-	-		
	Slightly Clayey SILT, yellowish brown with red mottles, very stiff, moist, no to low plasticity (slightly friable).		1.6						
			1.8		166	76	2.2		
			2.0						
			2.2	Groundwater Not Encountered	144	54	2.7		
			2.4						
			2.6		135	62	2.2		
			2.8						
			3.0		127	68	1.9		
			3.2						
			3.4		133	65	2.0		
			3.6						
			3.8		121	65	1.9		
			4.0						
			4.2		107	56	1.9		
			4.4						
			4.6		138	73	1.9		
			4.8						
			5.0		155	76	2.0		
	EOH: 5.00m - Target Depth		5.2						
			5.4						
			5.6						
			5.8						

REMARKS
End of borehole @ 5.00m (Target Depth: 5.00m)

NZGS Definition of Relative Density for Coarse Grain soils: VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense

LOGGED BY: JEM
CHECKED BY: ANA

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA02

JOB NO.: 139565 **SHEET:** 1 OF 1

CLIENT: Coastal Homes (2008) Ltd
PROJECT: New Dwelling
SITE LOCATION: 2791 State Highway 10, Mangonui

START DATE: 31/03/2025 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: DR4802 **ELEVATION:** Ground
FACTOR: 1.57 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL, dark brown, dry to moist.	TS	0.2						
Undifferentiated Tangihua Complex in Northland Allochthon	NATURAL: Clayey SILT, light brown with occasional light orange mottles, very stiff, dry to moist, low plasticity.		0.4		182	28	6.5		
	0.6m: Occasional red mottles, low to moderate plasticity.		0.6						
	0.8m: Occasional weakly and strongly cemented clast inclusions.		0.8		204	72	2.8		
	Slightly Clayey SILT, red with yellowish brown mottles, very stiff, dry to moist, low plasticity, occasional weakly and strongly cemented clast inclusions.		1.0						
	1.3m: Yellowish brown with red, purple and white mottles, no to low plasticity (slightly friable).		1.2		179	60	3.0		
	SILT, minor clay, yellowish brown with red, purple and white mottles, very stiff, dry to moist, no plasticity (friable).		1.4						
			1.6		188	28	6.7		
	Clayey SILT, yellowish brown with red, purple and white mottles, very stiff, moist, low plasticity.		1.8						
			2.0		104	41	2.5		
	Slightly Clayey SILT, yellow with purple and white mottles, very stiff, moist, no to low plasticity (slightly friable).		2.2						
			2.4		129	31	4.2		
	2.6m: Yellowish brown with red, purple and white mottles.		2.6						
			2.8		104	19	5.5		
	3.0m: Red with yellowish brown, purple and white mottles.		3.0						
			3.2		119	25	4.8		
			3.4						
			3.6		141	25	5.6		
			3.8						
			4.0						
	SILT, minor clay, yellowish brown and red with white mottles, very stiff to hard, moist, no to low plasticity (slightly friable).		4.2		UTP	-	-		
			4.4						
	EOH: 4.50m - Too Hard To Auger		4.6		UTP	-	-		
			4.8						
			5.0						
			5.2						
			5.4						
			5.6						
			5.8						

Groundwater Not Encountered

REMARKS
End of borehole @ 4.50m (Target Depth: 5.00m)

NZGS Definition of Relative Density for Coarse Grain soils: VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense

LOGGED BY: SJP
CHECKED BY: ANA

▼ Standing groundwater level
▽ GW while drilling

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HAND AUGER : HA03

JOB NO.: 139565 **SHEET:** 1 OF 1

START DATE: 31/03/2025 **NORTHING:** **GRID:**

CLIENT: Coastal Homes (2008) Ltd **DIAMETER:** 50mm **EASTING:**

PROJECT: New Dwelling **SV DIAL:** 1994 **ELEVATION:** Ground

SITE LOCATION: 2791 State Highway 10, Mangonui **FACTOR:** 1.41 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Top soil	TOPSOIL, dark brow, dry to moist.		0.0	Groundwater Not Encountered					
Undifferentiated Tangihua Complex in Northland Allochthon	NATURAL: Clayey SILT, yellowish brown, very stiff, dry to moist, low plasticity.		0.2						
			0.4		197	-	-		
			0.6						
			0.8		186	87	2.1		
	1.1m: Occasional red mottles.		1.0						
	1.2m: Occasional white mottles.		1.2		192	113	1.7		
	Slightly Clayey SILT, yellowish brown and red with white mottles, very stiff, dry to moist, no to low plasticity (slightly friable).		1.4						
			1.6		144	54	2.7		
			1.8						
	2.0m: Moist.		2.0		113	45	2.5		
			2.2						
	2.4m: Stiff.		2.4		85	31	2.7		
			2.6						
			2.8		96	39	2.5		
			3.0						
	3.2m: Red with yellowish brown mottles, very stiff.		3.2		110	42	2.6		
			3.4					3	
	EOH: 3.40m - Difficult Recovery Due To Hole Collaspe		3.6					3	
			3.8					4	
			4.0					4	
			4.2					6	
			4.4					6	
			4.6					6	
			4.8					6	
			5.0					6	
			5.2					7	
			5.4					7	
			5.6					7	
			5.8					11	
								11	
								10	
								10	
								12	
								13	
								15	
								20+	

SOIL DESCRIPTION: TOPSOIL, CLAY, SAND, PEAT, FILL, SILT, GRAVEL, ROCK

REMARKS

End of borehole @ 3.40m (Target Depth: 5.00m)

NZGS Definition of Relative Density for Coarse Grain soils: VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense

LOGGED BY: JEM

CHECKED BY: ANA

▼ Standing groundwater level

▽ GW while drilling

WILTON JOUBERT Consulting Engineers
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Foundation Maintenance and Footing Performance:
A Homeowner's Guide

PUBLISHING

BTF 18-2011 replaces Information Sheet 10/91

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

Soil Types

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870-2011, the Residential Slab and Footing Code.

Causes of Movement

Settlement due to construction

There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

Erosion

All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

Saturation

This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume, particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

Seasonal swelling and shrinkage of soil

All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

Shear failure

This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.

In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

GENERAL DEFINITIONS OF SITE CLASSES

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites, which may experience only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which may experience moderate ground movement from moisture changes
H1	Highly reactive clay sites, which may experience high ground movement from moisture changes
H2	Highly reactive clay sites, which may experience very high ground movement from moisture changes
E	Extremely reactive sites, which may experience extreme ground movement from moisture changes

Notes

1. Where controlled fill has been used, the site may be classified A to E according to the type of fill used.
2. Filled sites. Class P is used for sites which include soft fills, such as clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soil subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise.
3. Where deep-seated moisture changes exist on sites at depths of 3 m or greater, further classification is needed for Classes M to E (M-D, H1-D, H2-D and E-D).

Tree root growth
Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

Effects of Uneven Soil Movement on Structures

Erosion and saturation
Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

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

Seasonal swelling/shrinkage in clay
Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

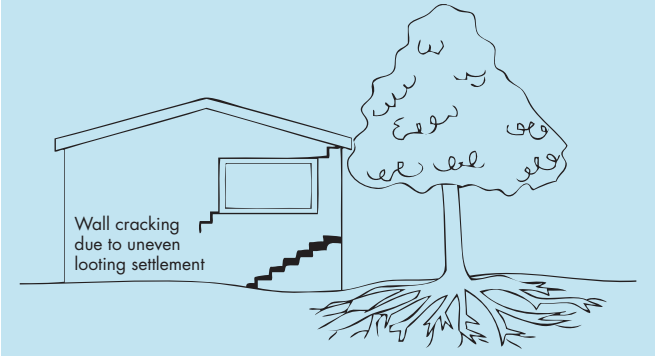
The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.

As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

Trees can cause shrinkage and damage



Movement caused by tree roots
In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

Complications caused by the structure itself
Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

Effects on full masonry structures
Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures
Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation causes a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures
Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem. Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870-2011.

AS 2870-2011 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/Cure

Plumbing
Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage
In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

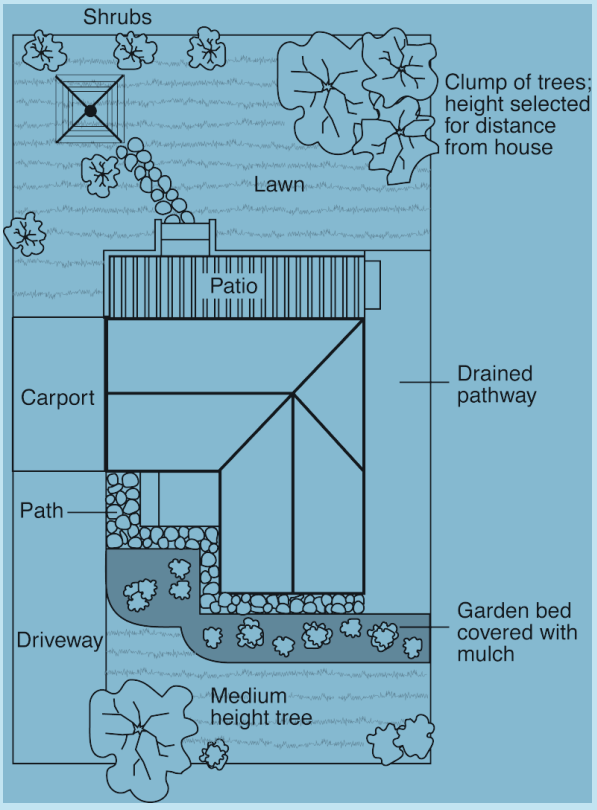
Protection of the building perimeter
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

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

CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

Description of typical damage and required repair	Approximate crack width limit (see Note 3)	Damage category
Hairline cracks	<0.1 mm	0
Fine cracks which do not need repair	<1 mm	1
Cracks noticeable but easily filled. Doors and windows stick slightly.	<5 mm	2
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired.	5–15 mm (or a number of cracks 3 mm or more in one group)	3
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted.	15–25 mm but also depends on number of cracks	4

Gardens for a reactive site



extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

Condensation

In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden

The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

Existing trees

Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs

State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation

Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

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WILTON JOUBERT
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Construction Monitoring Services

Northland, Auckland-Waikato, Canterbury, Southern Lakes

Need a PS4?

- Please read the conditions of your Building Consent to determine which section of the works Council wants an engineer to sign off on.
- Book an inspection with Wilton Joubert Ltd or with a suitable qualified engineer.
- Have the Consent documents on site at the time of the inspection
- Be sure to verify both the grounding conditions (soil parameters) as well as the structural elements of works in question
- If in doubt what to get inspected please clarify with Council.

Producer Statements 4 - Construction Review Documents (PS4's) relates to Building Consents (BC) only, not Resource Consents (RC), unless there is an element of the RC which requires a BC, e.g. a retaining wall needed to develop a subdivision.
In soils, RC's are usually verified with a "Statement of Professional Opinion as to Suitability for Building Development", or variations on that title.

CONSTRUCTION MONITORING SERVICES

Construction monitoring refers to the physical inspection of selective components of the design or works as required by Council and as specified in the Consented documents. It is up to the Consent holder to read the special conditions set out by Council and arrange for the required inspections to be done. No PS4 can be issued without the physical inspection of works and sighting of Consented plans either by the design engineer, his representative, or another qualified engineer. (download PDF with more info via our website)

It is also important to note that, more often than not, there are two physical components that needs verification:

1. Geotechnical or grounding Conditions –referring to the strength or bearing capacity of the soil
2. Structural Components – verify that works are done as per design and in accordance with the consented plans.

To complicate matters there can be multiple engineers that might be engaged on the same site:

- Civil Engineer – To do storm water and wastewater designs
- Geotechnical Engineer – to do a Geotech report and specificity soil parameters as required
- Structural Engineer – to design structural components such as retaining walls, raft floors, beams and so on.

In cases where engineers from different companies are appointed it is important to make sure all the required boxes are ticked as not to complicate matters when it comes to the issuing of all the relevant PS4's.
Note: sites in the Auckland area might requires multiple PS4's for the same component (e.g. a raft floor requires a Geotechnical Engineer to verify the bearing capacity of the platform and a Structural engineer needs to verify the structural components are according to the design.
Not to mention a Council inspection is also required on the same floor to verify position, plumbing and so on.

In Summary:

- Read the conditions as laid out in the Consent documents to which elements of the design requires a PS4's from the design engineer.
- Have Consented plans on site during inspection time
- Book inspections ahead of time (a minimum of 48 hours in advanced)
- Ensure both grounding conditions as well as structural components are inspected. In some cases, this might mean two separate inspections if different engineers are involved.
- If you have any further questions, feel free to contact us at any time during business hours.

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