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

Application for resource consent

Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA)) (If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Form 9).
Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges — both available on the Council's web page.

1. Pre-Lodgement discussion

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

Have you consulted Council's Infrastructure Officer regarding infrastructure capacity to service the development?
◯ **Yes** ✓ **No** ◯ **N/A**

Have you consulted the Roading Officer regarding any road to vest or departure from District Plan / Engineering standards?
◯ **Yes** ✓ **No** ◯ **N/A**

Contact details of who and how to engage in pre lodgement discussions can be found on the Resource Consent pages of the FNDC website.

2. Type of consent being applied for

(more than one circle can be ticked):

- ✓ **Land Use**
- ◯ **Fast Track (Land Use - Controlled Activity)**
- ◯ **Change of Consent Notice (s.221(3))**
- ◯ **Certificate of Compliance (s.139)**
- ◯ **Extension of time (s.125)**
- ◯ **Discharge:** Total voume = _____ m³
  Note; volumes >3m³ requires NRC Consent 3m³
- ✓ **Subdivision**
- ◯ **Existing Use Certificate (s.139A)**
- ◯ **Consent under National Environmental Standard**
  (e.g. Assessing and Managing Contaminants in Soil)
- ◯ **Other (please specify)** _____

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

✓ **Yes** ◯ **No**

4. Consultation

Have you consulted with Iwi/Hapū? ◯ **Yes** ✓ **No**

If yes, which groups have you consulted with?

Who else have you consulted with?

For any questions or information regarding iwi/hapū consultation, please contact:
The Resource Consents Planning Technicians, **planning_technicians@fndc.govt.nz**

5. Applicant details

Name/s: Colin Taylor

Email:

Phone number:

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

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

If yes, please provide details:

6. Address for correspondence

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

Name/s: Steven Sanson, Bay of Islands Planning Limited

Email:

Phone number:

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

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

7. Details of property owner/s and occupier/s

Name and Address of the owner/occupiers of the land to which this application relates (where there are multiple owners or occupiers please list on a separate sheet if required)

Name/s: Colin Stuart Taylor, Jacqueline Tina Taylor and Matthew William Taylor

Property address/ location:

Postcode 0230

8. Application site details

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

Name/s: Colin Stuart Taylor, Jacqueline Tina Taylor and Matthew William Taylor

Site address/ location: 141 Kerikeri Road
Kerikeri
Postcode 0230

Legal description: Lot 10 DP 79582 **Val Number:**

Certificate of title: NA36B/922

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.

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.

Two lot subdivision of Lot 10 DP 79582 into Lot 1 (475 m², existing dwelling) and Lot 2 (407 m²).
Includes a shared right of way over Lot 1, relocated crossing, servicing works and building removal.
Discretionary Activity under SUB-R3 (Proposed Plan). See attached AEE for full details.

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.

The proposal has been prepared in accordance with the following version of the FNDC Engineering Standards:

◯ **2009** ✓ **2023**

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. Natural hazards (National Policy Statement for Natural Hazards 2025)

Is the site subject to known or potential natural hazards (for example, flooding, coastal inundation, erosion, or unstable land), as contemplated by the National Policy Statement for Natural Hazards 2025? ○ **Yes** ☑ **No**

If yes, please identify the relevant natural hazard(s) by ticking the applicable box(es) below:

- ○ **Flooding**
- ○ **Landslips**
- ○ **Coastal Erosion**
- ○ **Coastal Inundation**
- ○ **Active Faults**
- ○ **Liquefaction**
- ○ **Tsunami**

Please ensure all relevant technical reports are submitted with the application.

14. 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**

15. Draft conditions:

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

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

16. 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) COLIN TAYLOR

Email:

Phone number:

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

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

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) COLIN TAYLOR

Signature:
(signature of bill payer)

Date 18/11/2026

MANDATORY

17. 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.

18. Declaration

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

Name (please write in full) COLIN TAYLOR

Signature

Date 18/11/2026

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

See overleaf for a checklist of your information...

Checklist of your information

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

Kerikeri House

Suite 3, 88 Kerikeri Road

Kerikeri

18 November 2026

To: Far North District Council

Matter: Application seeking consent for a subdivision of Lot 10 DP 79582 at 141 Kerikeri Road, Kerikeri.

Please find attached an application for a subdivision at 141 Kerikeri Road, Kerikeri. The site is legally described as Lot 10 DP 79582 (Record of Title NA36B/922).

The applicant, Colin Taylor, seeks consent to subdivide the site into two allotments. The subdivision creates one additional allotment and certificate of title, being Proposed Lot 1 (475 m^2, existing dwelling) and Proposed Lot 2 (407 m^2, vacant once ancillary buildings are removed).

The site is wholly within the General Residential zone under the Proposed Far North District Plan (**PDP**). Neither lot meets the 600 m^2 Controlled activity minimum allotment size for the General Residential zone under Standard SUB-S1. Both lots exceed the 300 m^2 Discretionary activity minimum. The subdivision is accordingly a **Discretionary Activity** under Rule SUB-R3, being subdivision creating a new allotment.

As set out in this report, the site is in an established urban residential area. Both lots are serviced, or can be serviced, from Council reticulated water, wastewater and stormwater networks.

The application is supported by the following information.

- **Appendix A** - Record of Title & Land Covenant
- **Appendix B** - Scheme Plan (Williams & King)
- **Appendix C** - Civil Site Suitability Report (Wilton Joubert)
- **Appendix D** - Geotechnical Site Assessment Report (Wilton Joubert)
- **Appendix E** – Utility Provide Consultation

Regards

Steven Sanson

Consultant Planner

1. Applicant & Property Details

Applicant	Colin Taylor
Address for Service	Bay of Islands Planning Limited, Kerikeri House, Suite 3, 88 Kerikeri Road, Kerikeri. C/O Steven Sanson, steve@bayplan.co.nz
Legal Description	Lot 10 DP 79582
Record of Title	NA36B/922
Physical Address	141 Kerikeri Road, Kerikeri
Site Area	882 m^2 (0.0882 ha)
Proposed District Plan Zone	General Residential
Operative District Plan Zone	Residential
Overlays and Notations	None mapped in the PDP. A public 300 mm stormwater main crosses the south-eastern part of the site and a public wastewater line enters from the southern boundary corner, as shown on the Far North District Council GIS. A private land covenant (Transfer 549096.1) is registered on the title.
National Policy Statements	The NPS-HPL does not apply because the site is zoned General Residential, which is an urban zone. This is addressed at Section 8.

2. Summary of Proposal

Proposal	A subdivision of Lot 10 DP 79582 (RT NA36B/922) at 141 Kerikeri Road, Kerikeri. The subdivision creates two allotments, Proposed Lot 1 (475 m^2) and Proposed Lot 2 (407 m^2), from the existing single title.
Reason for Application	Neither proposed lot meets the 600 m^2 Controlled activity minimum allotment size for the General Residential zone under Standard SUB-S1. Both lots exceed the 300 m^2 Discretionary minimum. The subdivision is accordingly a Discretionary Activity under Rule SUB-R3 (DIS-1). A 14 m x 14 m building envelope on Proposed Lot 2 is tight and is treated as not met under Standard SUB-S2. Impermeable surface coverage on Proposed Lot 1 will exceed the 50% limit in GRZ-R2 PER-1. The relocated and upgraded shared crossing triggers TRAN-R2 and Standard TRAN-S2. These matters are bundled within the overall Discretionary Activity status. The equivalent Operative District Plan provisions are addressed at Section 7.7.
Appendices	Appendix A: Record of Title and Land Covenant. Appendix B: Scheme Plan. Appendix C: Civil Site Suitability Report. Appendix D: Geotechnical Site Assessment Report. Appendix E: Utility Provider Consultation

3. Introduction

The applicant, Colin Taylor, seeks resource consent to subdivide the property at 141 Kerikeri Road, Kerikeri. The property is legally described as Lot 10 DP 79582 (RT NA36B/922). The subdivision creates two allotments, Proposed Lot 1 (475 m^2) and Proposed Lot 2 (407 m^2), which creates one additional allotment and certificate of title.

The Record of Title is provided in **Appendix A**.

Proposed Lot 1 contains the existing dwelling. It is connected to the Council reticulated water supply through an existing connection and meter on the public 40 mm rider main in the Kerikeri Road berm. It is also connected to the public low pressure sewer network. Both lots are within the established urban area of Kerikeri and can be serviced from the existing public water, wastewater and stormwater networks.

Proposed Lot 2 is currently occupied by two sleepouts, a covered patio, concrete surfacing and the private sewer pump chamber that serves the dwelling. These elements will be removed or relocated as part of the subdivision. Proposed Lot 2 will then be vacant and available for a future dwelling.

The subdivision works that are proposed are limited to the following.

- Removal of the garage, two sleepouts, covered patio and concrete surfacing that sit within the new access or on Proposed Lot 2.
- Relocation of the wastewater pump chamber into Proposed Lot 1 and connection to the public low pressure sewer through a new boundary kit.
- Relocation and upgrade of the existing vehicle crossing to serve a shared right of way over Proposed Lot 1, with a 4.0 m legal width and a 3.0 m sealed carriageway.
- A new water connection and meter for Proposed Lot 2 from the public 40 mm rider main.
- Independent stormwater connections to the public 300 mm main, and a 3,000 litre detention tank serving Proposed Lot 1.

No dwelling is proposed on Proposed Lot 2 as part of this application. Any future dwelling will be the subject of a separate building consent and, if needed, a separate land use consent.

The servicing and access arrangements are assessed in the Civil Site Suitability Report prepared by Wilton Joubert Limited, dated 30 October 2026, provided in **Appendix C**. The suitability of Proposed Lot 2 for residential development is assessed in the Geotechnical Site Assessment Report prepared by Wilton Joubert Limited, dated 22 October 2026, provided in **Appendix D**.

The proposal is shown on the Williams & King Scheme Plan (Job 24912) provided in **Appendix B** and reproduced at Figure 3.

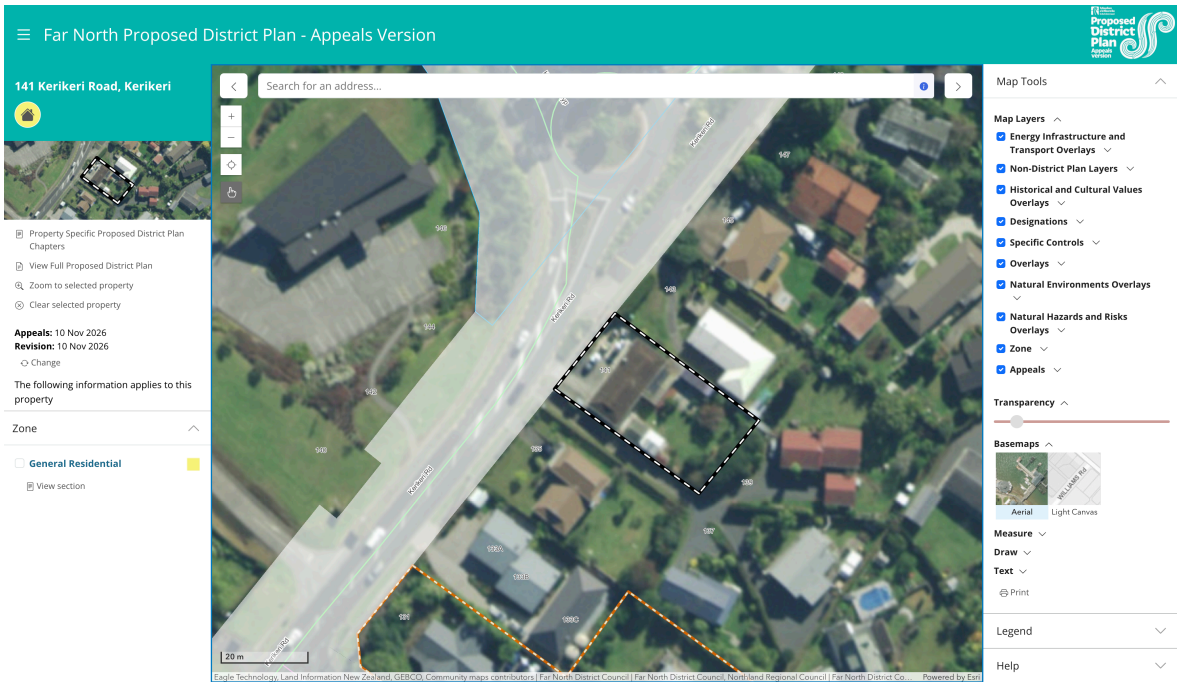


Figure 1. Site aerial showing Lot 10 DP 79582, the application site. Source Far North Maps GIS.

4. Description of the Site and Surrounds

The subject site is a rectangular 882 m^2 allotment on the south-eastern side of Kerikeri Road. Its vehicle access is about 40 m south-west of the Heritage Bypass roundabout. The site is within the established urban area of Kerikeri. The adjoining sites to the north-east (Lot 11 DP 79582) and south-east (Lot 15 DP 79582) are developed for residential use, as is the land to the south-west.

Existing development, access and services

Built development is confined to the north-western part of the site. It comprises a dwelling with an attached garage, two sleepouts, gravel and concrete parking areas along the road frontage, and concrete patio areas. The south-eastern part of the site is in lawn, gardens and small trees along the boundaries.

Access is by a concrete driveway from Kerikeri Road at the western corner of the site. The existing crossing is not centred on the proposed right of way and will be relocated and upgraded.

The dwelling has an existing water connection and meter on the public 40 mm rider main in the Kerikeri Road reserve. A public 150 mm water main is on the opposite side of the road. The dwelling discharges wastewater through an on-site pump chamber (currently within proposed Lot 2) to a boundary kit on the public low pressure sewer at the south-western corner of the site. A public 300 mm stormwater main crosses the south-eastern part of the site, offset between about 3.7 m and 5.7 m from the south-eastern boundary. Its upstream and downstream manholes are on the neighbouring properties to the north and south. These services are assessed in the Civil Site Suitability Report at **Appendix C**.

Topography and geotechnical features

The site is on a broad volcanic plateau. It is near level to gently sloping, falling to the south-east at an average of less than 3 degrees. The Geotechnical Site Assessment Report at **Appendix D** records the following.

- The geology is Kerikeri Volcanic Group, with about 0.4 m of topsoil over very stiff to hard silt.
- Groundwater was not encountered in either borehole.
- The site is in a Low Stability Hazard Zone, and liquefaction risk is negligible.
- Shallow foundations are suitable for a future dwelling on Proposed Lot 2, with an ultimate bearing capacity of 300 kPa and expansive soil Class M.
- The site is not identified on the FNDC or Northland Regional Council hazard maps as susceptible to flooding or erosion.

Zoning and overlays

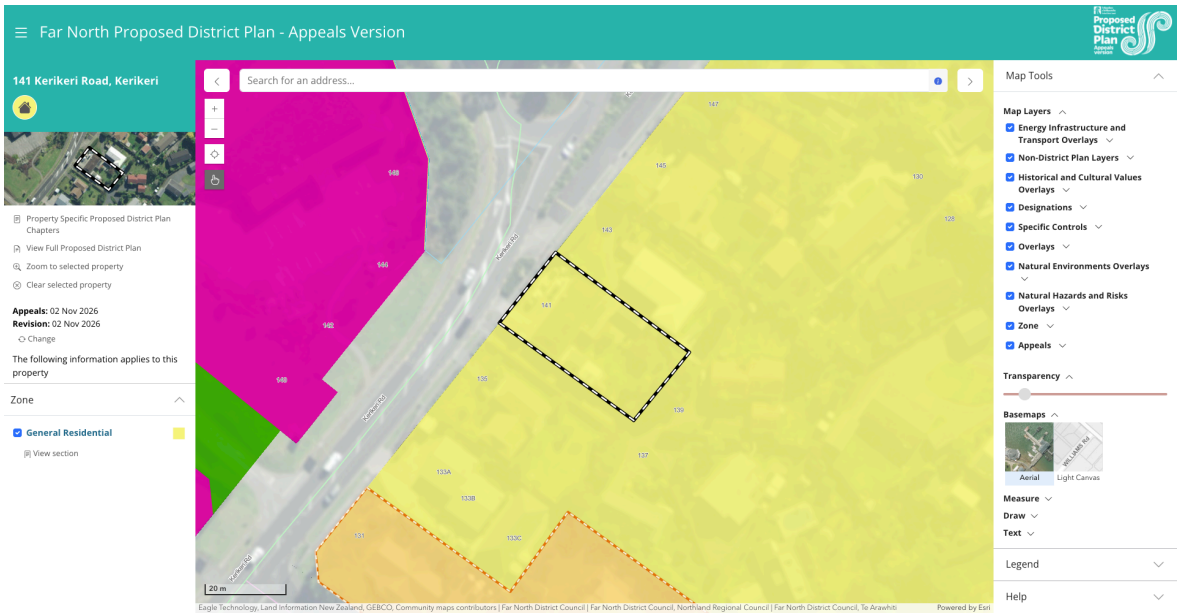


Figure 2. Zoning under the Proposed District Plan, Appeals Version (revision 2 November 2026). Source Far North Maps ePlan.

Figure 2 confirms that the site is zoned General Residential in its entirety. The ePlan property report lists General Residential as the only zone and identifies no overlay, designation or specific control on the site. No heritage resource, site or area of significance to Māori, outstanding landscape or feature, significant natural area, coastal environment, flood or other natural hazard overlay is mapped on the site.

The site is zoned for urban residential use. It is not highly productive land and the NPS-HPL does not apply. This is addressed at Section 8.

5. Records of Title, Easements and Covenants

The Record of Title is provided in **Appendix A**. The title is held in the names of Colin Stuart Taylor and Jacqueline Tina Taylor (as to a half share) and Matthew William Taylor (as to a half share). The only interests registered on the title are a land covenant in Transfer 549096.1 and a mortgage in favour of ANZ Bank New Zealand Limited.

The land covenant was imposed by the original developer of the residential subdivision in 1977. It is a private matter between the parties to it. Council is not a party to the covenant and it does not form part of this assessment. It is noted here for completeness.

No easements are currently registered on the title. The subdivision will register the following new easements, as shown on the Scheme Plan at Figure 3.

Purpose	Shown	Burdened land	Benefited land or grantee
Right of way, right to drain water, and right to convey electricity, water and telecommunications	A	Lot 1 hereon	Lot 2 hereon
Right to drain water (in gross)	B	Lot 2 hereon	Far North District Council

Easement A is a 4.0 m wide strip along the south-western boundary of Proposed Lot 1. It runs about 22 m from Kerikeri Road to Proposed Lot 2 and provides legal access and services to Proposed Lot 2. Easement B is a 4.0 m wide strip (2.0 m either side of the line) over the public 300 mm stormwater main that crosses the south-eastern part of Proposed Lot 2.

The civil report identifies that the relocated pump chamber and the retained private rising main may cross the boundary between the two lots. Any further easements needed for private wastewater, and any easements required by the power and telecommunications network operators, will be created and shown on the section 223 survey plan. The applicant accepts a condition of consent to this effect.

6. Description of Proposal

The proposal divides Lot 10 DP 79582 into two fee simple allotments.

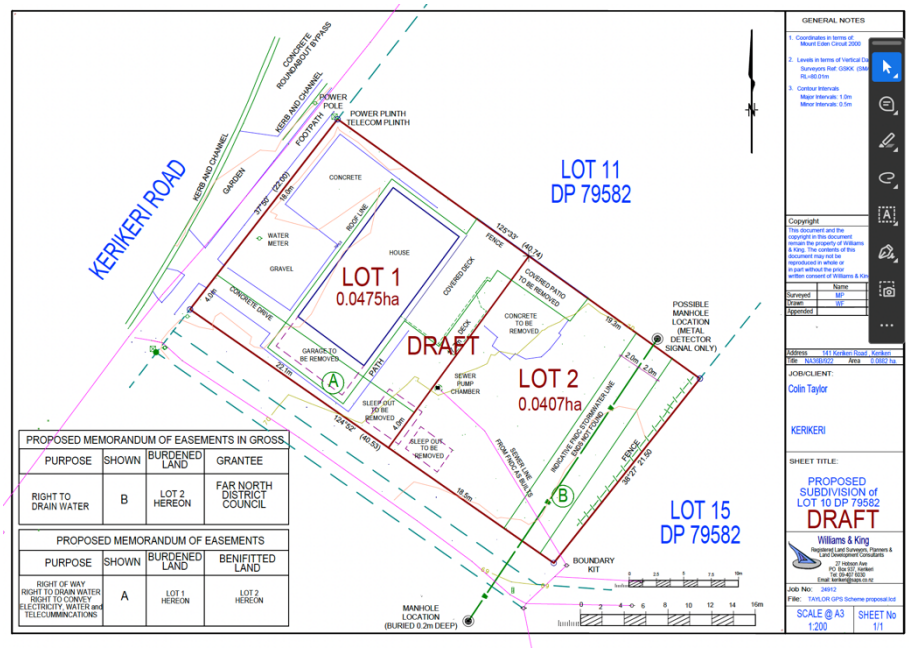


Figure 3. Proposed Scheme Plan. Source Williams & King, Job 24912. [Insert scheme plan]

Proposed Lot 1, 475 m²

This is the road frontage portion of the site and contains the existing dwelling. The 4.0 m wide Easement A runs along its south-western edge and provides shared access and services to Proposed Lot 2. Proposed Lot 1 keeps its existing water connection and meter. Its wastewater pump chamber is relocated onto the lot, and a 3,000 litre detention tank is installed to attenuate stormwater.

Proposed Lot 2, 407 m^2

This is the rear, south-eastern portion of the site. It will be vacant once the sleepouts, covered patio and concrete are removed. The public 300 mm stormwater main crosses the lot and is protected by Easement B in favour of Council. The Geotechnical Site Assessment Report identifies a designated building platform on the lot that sits clear of that easement and is suitable for shallow foundations.

The areas shown are overall areas, and include the land subject to the easements.

The physical works are described in Section 3 and are set out in the Civil Site Suitability Report at **Appendix C**. The proposal does not involve earthworks, vegetation clearance or new buildings. A nominal cut and fill to form a level building platform on Proposed Lot 2 will be needed for a future dwelling, and is not part of this application.

Based on the assessment of environmental effects provided below, it is concluded that any potential adverse effects of the subdivision would be less than minor and can be managed through conditions of consent.

Conditions the applicant accepts

The applicant accepts the following conditions, or conditions to similar effect.

1. The garage, sleepouts, covered patio and concrete surfacing that sit within the access or on Proposed Lot 2 are removed under building consent before the section 224(c) certificate is sought. Any building or structure that crosses, or is closer than 1.2 m to, the new internal boundary is removed or relocated.
2. The wastewater pump chamber is relocated into Proposed Lot 1, a new connection and boundary kit are installed on the public low pressure sewer, and the private rising main is capped within Proposed Lot 2 for a future pump station. All work is to the Far North District Council Engineering Standards and the supplier's requirements.
3. A new water connection and meter are installed for Proposed Lot 2 in accordance with Sheet 46 of the Engineering Standards, subject to Council confirming network capacity and pressure.
4. Independent stormwater connections are made to the public 300 mm main for each lot, and the 3,000 litre detention tank is installed on Proposed Lot 1 with the roof downpipes rerouted to it.
5. The vehicle crossing is reconstructed and relocated to align with Easement A in accordance with Sheet 18 of the Engineering Standards. The 4.0 m wide right of way is

formed with a sealed carriageway of at least 3.0 m. Redundant crossings are reinstated, and a corridor access request is obtained for works in the road reserve.

6. Electricity and telecommunications connections are provided to the boundary of Proposed Lot 2, with written confirmation from the network operators.
7. Any additional easements needed for private wastewater, power or telecommunications are shown on the section 223 survey plan and registered.
8. Consent notices are registered on the title of Proposed Lot 2 requiring that future development either complies with the 50 per cent impermeable surface limit or provides on-lot stormwater attenuation, that buildings are kept clear of Easement B, and that foundations are designed in accordance with the Geotechnical Site Assessment Report.

7. District Plan Assessment

This assessment is directed first at the PDP Appeals Version, chapters dated 20 August 2026. The ePlan property report used for zoning is the 2 November 2026 revision. The Operative District Plan is assessed at Section 7.7, because some provisions of the PDP remain subject to appeal.

7.1 Subdivision, activity status

As the proposal creates an additional allotment and certificate of title, it falls to be assessed under Rule SUB-R3, subdivision creating a new allotment.

In the General Residential zone, SUB-R3 provides that subdivision is a Controlled Activity where CON-1 and CON-2 are met. Where CON-1 is not achieved, the activity is Restricted Discretionary. Where CON-2 is not achieved, the activity is Discretionary if DIS-1 is met, and Non-complying if it is not. The tests are assessed below.

SUB-R3	Requirement	Assessment
CON-1	Compliance with SUB-S2 building platforms, SUB-S3 water supply, SUB-S4 stormwater, SUB-S5 wastewater, SUB-S6 telecommunications and power, and SUB-S7 easements.	Proposed Lot 1 contains an established dwelling. Proposed Lot 2 has a designated building platform, but a 14 m x 14 m envelope is tight and is treated as not met (see 7.2). The servicing standards are met by the existing and proposed arrangements in **Appendix C**. Telecommunications and power provision provided in **Appendix E**. **Does not comply, SUB-S2, Lot 2**

SUB-R3	Requirement	Assessment
CON-2	Compliance with SUB-S1 minimum allotment sizes, and SUB-S8 esplanades.	Proposed Lot 1 (475 m^2) and Proposed Lot 2 (407 m^2) are both below the 600 m^2 Controlled minimum. Neither lot adjoins MHWS, a qualifying river or a qualifying lake, so SUB-S8 is met. **Does not comply, SUB-S1, both lots**
DIS-1	Where CON-2 is not met, is the Discretionary activity minimum allotment size of 300 m^2 achieved?	Proposed Lot 1 (475 m^2) and Proposed Lot 2 (407 m^2) both exceed 300 m^2. **Met**
Outcome	SUB-R3	CON-2 is not met and DIS-1 is met. The activity is assessed under DIS-1. **Discretionary Activity**

The application also triggers the following rules and standards, which are not complied with.

- GRZ-R2 PER-1 impermeable surface coverage on Proposed Lot 1, a Restricted Discretionary matter (see 7.4).
- TRAN-R2 PER-7 and Standard TRAN-S2 for the relocated shared crossing, a Restricted Discretionary matter (see 7.5).

Where an application triggers more than one rule, the activities are bundled and assessed as a single activity under the most onerous status. The overall activity status is therefore **Discretionary**.

The Council's discretion is not restricted, and the matters of discretion of the infringed rules are addressed at Section 8.

7.2 Subdivision standards, SUB-S1 to SUB-S8

Standard	Requirement	Assessment
SUB-S1	Minimum allotment sizes. General Residential 600 m^2 Controlled, 300 m^2 Discretionary.	Lot 1 is 475 m^2 and Lot 2 is 407 m^2. Both are below 600 m^2 and above 300 m^2. **Does not comply with the Controlled minimum, addressed as Discretionary via DIS-1**

Standard	Requirement	Assessment
SUB-S2	Building platforms. A 14 m x 14 m square envelope that does not encroach into setbacks or into an area that does not allow a building.	Lot 1 has an established building platform occupied by the dwelling, which is set back more than 1.2 m from the new boundaries (see 7.4). Lot 2 has a designated building platform identified in the geotechnical report. That platform sits clear of the 4.0 m wide Easement B and the 1.2 m setbacks, but a full 14 m x 14 m square cannot be fitted on the lot without extending over the easement. **Not met for Lot 2, addressed at Section 8**
SUB-S3	Water supply. Connection to Council supply where available, and firefighting water consistent with SNZ PAS 4509:2008.	Lot 1 retains its existing connection and meter on the public 40 mm rider main. Lot 2 receives a new connection and meter from the same main, with the private line running through Easement A. The estimated demand is 1,500 L per lot per day, with a peak of 0.09 L/s per lot. Council is to confirm capacity and pressure at engineering approval. Firefighting supply will be confirmed against SNZ PAS 4509:2008 at engineering approval. **Complies, subject to conditions**
SUB-S4	Stormwater management. Disposal from all impermeable surfaces, 10% AEP primary and 1% AEP secondary capacity, 20% climate change allowance, and no increase in peak discharge.	Each lot has an independent connection to the public 300 mm main. Lot 1 has a 3,000 L detention tank that limits peak discharge to that of a site complying with the 50 per cent limit, for the 20% AEP and 1% AEP events plus climate change. Lot 2 will either comply with the 50 per cent limit or provide its own attenuation. The site is near a local high point and receives no significant upstream flow. **Complies**
SUB-S5	Wastewater disposal. Connect to the Council scheme where available.	Both lots connect to the public low pressure sewer. Council has advised that the network has capacity. The pump chamber is relocated to Lot 1 and each lot has its own grinder pump system with at least 12 hours emergency storage. **Complies**
SUB-S6	Telecommunications and power. Connection or easements to secure connection, with written network operator confirmation.	Lot 1 is connected. Lot 2 is served through Easement A. Written confirmation from the network operators is to be provided, and is secured by condition. **Complies, subject to conditions**

Standard	Requirement	Assessment
SUB-S7	Easements for any purpose.	Easements A and B are shown on the scheme plan. Any further private wastewater, power or telecommunications easements are secured by condition. **Complies**
SUB-S8	Esplanades.	Neither lot adjoins MHWS, a qualifying river or a qualifying lake. **Complies**

7.3 Subdivision rules

Rule	Subject	Assessment
SUB-R1	Boundary adjustments	Not applicable. The proposal creates an additional allotment and title. **N/A**
SUB-R2	Subdivision solely for public works, infrastructure, reserves or access	Not applicable. No such allotment is created. **N/A**
SUB-R3	Subdivision creating a new allotment	The proposal creates one additional allotment. CON-2 is not met because neither lot meets SUB-S1. DIS-1 is met. **Discretionary**
SUB-R4	Subdivision creating a private accessway	The shared accessway over Lot 1 serves two allotments, within the maximum of eight in CON-1. The transport rules are assessed at 7.5. **Complies**
SUB-R5	Subdivision around an approved residential development	Not applied. This rule is for subdivision around constructed or approved residential development, and Lot 2 is vacant. The application is assessed under SUB-R3. **N/A**
SUB-R6 and R7	Environmental benefit and management plan subdivision	Not relevant. **N/A**

Rule	Subject	Assessment
SUB-R8	Land susceptible to instability	The geotechnical report records a Low Stability Hazard Zone and no instability constraint. **Complies**
SUB-R9 and R10	Critical Electricity Line and National Grid corridors	Not mapped on the site. **N/A**
SUB-R11 and R12	Flood and coastal hazard areas	Not mapped on the site. The geotechnical report records no flood or erosion susceptibility. **N/A**
SUB-R13 to R15	Heritage area, scheduled heritage resource, and site or area of significance to Māori	None mapped on the site. **N/A**
SUB-R16	Land Drainage Area of Benefit	Not mapped on the site. **N/A**
SUB-R17 and R21	Mineral Extraction zone, and land within 100 m of it	The site is not within or near a Mineral Extraction zone. **N/A**
SUB-R18 to R20	Outstanding Natural Landscape or Feature, wetland, lake and river margins, and coastal environment	Not relevant. **N/A**
SUB-R22	Additional allotments containing highly productive land	The site is zoned General Residential and is not highly productive land. **N/A**
SUB-R23	Outstanding Natural Character	Not relevant. **N/A**

7.4 General Residential zone rules

Both lots are wholly within the General Residential zone. No new building is proposed. The only physical changes are the removal of the garage, sleepouts, covered patio and concrete surfacing and the formation of the shared accessway. Distances to boundaries below have been scaled from the Williams & King Scheme Plan and are approximate.

Rule	Subject	Assessment
GRZ-R1	New or altered buildings and structures	No new building or structure, and no extension, is proposed. Removing the garage and ancillary buildings reduces the bulk and footprint of the existing development. Any making good of the dwelling wall is a building consent matter. The existing dwelling is within the setbacks and recession planes assessed under GRZ-S1 to S3 below. **Complies**
GRZ-R2	Impermeable surface coverage. PER-1 no more than 50% of the site. PER-2 stormwater disposed of on site where no reticulated connection is available.	PER-2 is met because the public stormwater network is available. Following subdivision and formation of the 66 m^2 sealed accessway, Lot 1 will have about 358 m^2 of impermeable surface, which is 75.4% of its 475 m^2 area. The permitted maximum is 237.5 m^2. Lot 2 has a permitted maximum of 203.5 m^2 and no development is proposed on it. The civil report records that the exceedance results mainly from the smaller lot area and the access requirement. A 3,000 L detention tank limits Lot 1 discharge to that of a compliant site. **Does not comply with PER-1 on Lot 1. Restricted Discretionary, bundled within the overall Discretionary Activity**
GRZ-R3	Residential activity (standalone residential units). PER-1 no more than one unit per site.	Lot 1 has one existing unit and Lot 2 can accommodate one future unit. **Complies**
GRZ-R4 to R14	Visitor accommodation, home business, educational facility, supported residential care, conservation, multi-unit development, retirement village, community facility, place of assembly, emergency services facility, and activities not otherwise listed	No such activity is proposed. **N/A**

Rule	Subject	Assessment
GRZ-R15 to R23	Industrial activity, commercial activity, primary production, rural industry, hospital, offensive trade, commercial composting, community corrections activity, and cleanfill or landfill	No such activity is proposed. **N/A**
GRZ-S1	Maximum height, 8 m	No new building or increase in height is proposed. **N/A**
GRZ-S2	Height in relation to boundary	The dwelling is about 6.2 m from the new boundary with Lot 2, which is an eastern boundary. At that distance a building up to 8 m high sits inside the 45 degree plane. The relationship to the other boundaries is unchanged by the subdivision. **Complies**
GRZ-S3	Setback, 1.2 m from site boundaries and 3 m from a road boundary	The dwelling is about 6.2 m from the new boundary with Lot 2, about 4.8 m from the south-western boundary, about 1.4 to 1.8 m from the north-eastern boundary (unchanged), and about 7.5 to 8.3 m from the road boundary. The covered deck beside the dwelling is shown close to the new boundary. Any part of it that is within 1.2 m of the boundary is removed under condition 1 at Section 6. **Complies**
GRZ-S4	Façade, fence heights	No fence is proposed. **N/A**
GRZ-S5	Outdoor living space, 40 m^2 with a minimum dimension of 5 m for each unit	The area between the dwelling and the new boundary on Lot 1 is about 6 m wide and over 14 m long. It is directly accessible from the dwelling and faces east, and it can provide the required space. Lot 2 has 407 m^2 and can provide the space when a dwelling is designed. **Complies**
GRZ-S6	Outdoor storage	No outdoor storage is proposed. **N/A**

7.5 Transport rules

Both lots will be accessed from Kerikeri Road by a single shared crossing and the 4.0 m wide right of way (Easement A) over Lot 1. The posted speed limit on Kerikeri Road is 50 km/h. The existing crossing is not aligned with the right of way and will be relocated and upgraded in accordance with Sheet 18 of the Far North District Council Engineering Standards. As the crossing is altered and the access serves two allotments, TRAN-R2 is triggered. The Wilton Joubert report records that sight distance exceeds 70 m to the south-west, and that about 40 m is available to the north-east because of the nearby Heritage Bypass roundabout, where vehicle speeds are reduced. The report considers that acceptable, subject to Council approval.

Rule or standard	Subject	Assessment
TRAN-R1 and S1	Parking	No minimum car parking is required for the residential use of either lot. Space for on-site parking is available on both lots. **Complies**
TRAN-R2	New or altered vehicle crossings and private accessways	PER-1 is met because the accessway serves two allotments. PER-4 is met because redundant crossing areas are reinstated. PER-5 is met because the accessway has a 4.0 m legal width, a sealed carriageway of at least 3.0 m and a length of about 22 m, against the TRAN-Table 10 requirements of 4.0 m, 3.0 m and 50 m maximum for one to four allotments in the General Residential zone. PER-6 is met because the accessway is sealed. PER-3 depends on the road classification of Kerikeri Road on the Transport Network Hierarchy layer, which is to be confirmed. PER-7 is not met because TRAN-S2 is not met (see below). **Does not comply with PER-7 (and PER-3 if Kerikeri Road is arterial). Restricted Discretionary in respect of this rule, bundled within the overall Discretionary Activity**
TRAN-R3	Pedestrian access where vehicle access is not provided	Vehicle access is provided to each lot. **N/A**
TRAN-R4 and R5	Crossings and buildings near railway level crossings	Not relevant. **N/A**

Rule or standard	Subject	Assessment
TRAN-R6 to R8	Maintenance and upgrading of transport infrastructure, and electric vehicle charging stations	Not relevant. **N/A**
TRAN-R9	Trip generation	Two residential units are well below the TRAN-Table 12 thresholds. **Complies**
TRAN-R10 and R11	Pou Herenga Tai Twin Coast Cycle Trail	Not relevant. **N/A**
TRAN-R12	New roads	The accessway is a private accessway and no road is created. **N/A**
TRAN-R13	Crossings from a State Highway or Limited Access Road	Access is from Kerikeri Road, which is not a State Highway or Limited Access Road. **N/A**
TRAN-R14	Activities not otherwise listed	Not relevant. **N/A**
TRAN-S2	Requirements for vehicle crossings	One crossing is provided for a 22 m frontage, which is within TRAN-Table 7. The crossing is not off a second road frontage. The crossing is about 40 m from the Heritage Bypass roundabout, and TRAN-Table 8 requires between 35 m and 70 m at 50 km/h depending on road classification, so separation may not be met. TRAN-Table 9 requires sight distance of 60 m, 70 m or 120 m at 50 km/h depending on classification. About 70 m or more is available to the south-west, and about 40 m is available to the north-east. **Does not comply with TRAN-Table 9 to the north-east, and possibly TRAN-Table 8**
TRAN-S3	Passing bays	The accessway is about 22 m long and straight, with clear visibility along its length, so no passing bay is required. **Complies**

Rule or standard	Subject	Assessment
TRAN-S4 and S5	Road design, and railway level crossing sight triangles	Not relevant. **N/A**

7.6 Other district wide matters

Chapter	Subject	Assessment
Earthworks	Earthworks	No earthworks are needed to give effect to the subdivision other than minor excavation for the accessway, service connections and detention tank. These are expected to sit within the permitted thresholds and will be managed under the Engineering Standards. **Complies**
Natural Hazards	Natural hazards	The site is not within a mapped hazard overlay. The geotechnical report records a Low Stability Hazard Zone, negligible liquefaction risk, and no flood or erosion susceptibility. **Complies**
Heritage and Tangata Whenua	Historic heritage, sites and areas of significance to Māori, notable trees	None are mapped on the site. An accidental discovery protocol advice note is offered. **Complies**
Ecology	Indigenous biodiversity and activities on water	No indigenous vegetation clearance and no work in or near a waterbody is proposed. **Complies**
Hazardous Substances	Hazardous substances	Not proposed. **Complies**
Noise, Lighting and Signs	Operational noise, lighting and signs	Not relevant. Demolition noise will be managed to the construction noise limits. **Complies**

No rule with legal effect requires consent beyond the subdivision itself and the bundled matters identified above, which are assessed together as a Discretionary Activity under SUB-R3.

7.7 Operative District Plan

Some provisions of the PDP that apply to this application remain subject to appeal. Standard SUB-S1 is shown with an appeal border on the ePlan, and the Subdivision, General Residential and Transport chapters each carry a notice that rules within them are subject to appeal. The corresponding Operative Far North District Plan rules therefore continue to apply until those appeals are resolved. They are assessed here so that the most onerous activity status is captured.

The site is zoned Residential under the Operative Plan. The relevant chapters are Chapter 7 Urban Environment (Section 6 Residential Zone), Chapter 13 Subdivision and Chapter 15 Transportation.

Subdivision (Chapter 13) and Transportation (Chapter 15)

Rule	Subject	Assessment
13.7.2.1 and 13.9.1	Minimum lot sizes, Residential zone. Controlled 600 m^2 sewered. Discretionary 300 m^2 sewered.	Both lots are connected to the public sewer. Lot 1 (475 m^2) and Lot 2 (407 m^2) are below 600 m^2 and above 300 m^2. **Discretionary (subdivision) activity**
13.7.2.2	Allotment dimensions, 14 m x 14 m building envelope in the Residential zone	A 14 m x 14 m square fits within the 1.2 m setbacks on Lot 2. It would overlap Easement B, which restricts building over the public stormwater main. The practical position is therefore the same as under SUB-S2. **Tight, addressed at Section 8**
13.6.5	Legal road frontage	Lot 1 has frontage to Kerikeri Road. Lot 2 has legal access by a right of way that is approved as part of this consent. **Complies**
13.7.2.1	New lots that already accommodate structures must comply with the relevant zone rules	See the Residential zone table below. Lot 1 exceeds the stormwater coverage standard. **Not fully complied with, bundled**
13.6.7	Consent notices	Consent notices are offered for Lot 2 (see Section 6). **Complies**

Rule	Subject	Assessment
13.6.12 and 13.7.3	Suitability for land use and other matters	The geotechnical report records low instability risk and suitable ground, and the civil report confirms servicing. **Complies**
15.1.6A	Traffic intensity	The first residential unit on a site is exempt, and the subdivision does not exceed any threshold. **Complies**
15.1.6B	Parking	No minimum car parking requirement applies, consistent with Policy 11 of the NPS-UD. **N/A**
15.1.6C.1.1	Private accessway in all zones. Serves no more than eight household equivalents. Access not permitted onto an arterial or collector road within 90 m of an intersection with an arterial or collector road, nor onto Kerikeri Road between Maraenui Drive and Cannon Drive (except existing lawfully established access).	The accessway serves two lots. The crossing is about 40 m from the Heritage Bypass roundabout and the separation is not met if both roads are arterial or collector roads. The crossing replaces and relocates an existing lawfully established crossing and no additional access is created. **Not fully complied with, bundled**
15.1.6C.1.2	Private accessways in urban zones. Serves no more than four units, visibility not restricted, less than 60 m long, minimum 3 m wide and sealed.	The accessway serves two units, is about 22 m long, and has a sealed carriageway of at least 3.0 m. **Complies**
15.1.6C.1.3	Passing bays. Accesses serving two or more sites are to provide passing bays and queuing space at the crossing.	A formal 15 m passing bay is not provided. The accessway is short, straight and serves two dwellings. **Not complied with, bundled**
15.1.6C.1.4 and 15.1.6C.1.6	Access over footpaths, and vehicle crossings in urban zones. One crossing of not more than 6 m, built to the Engineering Standards and double width where two properties are served.	A single shared crossing is built to Sheet 18 of the Engineering Standards. **Complies**

Rule	Subject	Assessment
15.1.6C.1.7	General access standards, including no reversing onto the road	Space for vehicles to leave in a forward direction will be confirmed at detailed design and when a dwelling is designed on Lot 2. **Complies, subject to detailed design**
15.1.6C.1.8	Frontage to existing roads	Kerikeri Road is formed with kerb, channel and footpath along the frontage. **Complies**

Residential Zone (Chapter 7, Section 6)

Rule	Subject	Assessment
7.6.5.1.2	Residential intensity, 600 m^2 per unit sewered (300 m^2 as Restricted Discretionary)	Each lot has one dwelling, or room for one. Lot 1 and Lot 2 are each below 600 m^2 and above 300 m^2. To the extent that the rule applies to the existing dwelling and to a future dwelling on a new lot, consent would be Restricted Discretionary under 7.6.5.3.1 and that rule is met. **Restricted Discretionary, bundled**
7.6.5.1.3	Scale of activities	No non-residential activity is proposed. **N/A**
7.6.5.1.4	Building height, 8 m	No new building is proposed. **N/A**
7.6.5.1.5	Sunlight, 45 degree recession plane	The dwelling is about 6.2 m from the new boundary, which is far enough to sit inside the plane. Other boundaries are unchanged. **Complies**
7.6.5.1.6 and 7.6.5.2.1	Stormwater, 50% permitted and 60% controlled	Lot 1 will be about 75.4% impermeable, which exceeds both thresholds. The civil report is provided and attenuation limits discharge to that of a compliant site. **Does not comply. Discretionary, bundled**

Rule	Subject	Assessment
7.6.5.1.7	Setbacks, 3 m from the road boundary, 1.2 m from other boundaries, and a 2 m landscaped strip at the road boundary	The dwelling is clear of the new boundaries. The dwelling is about 7.5 to 8.3 m from the road boundary. If the site is within the Kerikeri Road frontage area where a 9 m setback applies, the existing dwelling does not meet it. That is an existing, lawfully established position that the subdivision does not change, because the road boundary is unchanged. **Complies for the new boundaries. Existing position unchanged**
7.6.5.1.17	Building coverage, 45%	The dwelling footprint is about 115 m^2, roughly 24% of Lot 1, which is well below 45% once the garage is removed. **Complies**
7.6.5.1.1, .8 to .10, .12 to .14, .16	Relocated buildings, screening, outdoor activities, visual amenity, non-residential activity, animals and helicopter landing	Not relevant. **N/A**
7.6.5.1.15	Noise	Residential use will comply. Demolition will meet the construction noise limits. **Complies**
Chapters 12, 14 and 16	Natural and physical resources, financial contributions, signs and lighting	Not relevant to this subdivision. **N/A**

The subdivision is a Discretionary Activity under the Operative Plan, as it is under the PDP. The assessment of effects at Section 8 addresses the matters raised by both plans.

8. Statutory Considerations

As the subdivision is a Discretionary Activity under both plans, section 104B of the RMA applies. The consent authority may grant or refuse consent, and if granted may impose conditions under section 108.

Section 104 requires that, subject to Part 2, the consent authority have regard to any actual and potential effects on the environment, the relevant provisions of national and regional instruments, and the relevant plan or proposed plan, and any other matter it considers relevant and reasonably necessary. Those matters are addressed below.

Section 104(1)(a), assessment of effects on the environment

Minimum lot size and planned urban character

Lot 1 (475 m^2) and Lot 2 (407 m^2) are below the 600 m^2 Controlled minimum but well above the 300 m^2 Discretionary minimum for the General Residential zone.

The General Residential zone is where the PDP expects higher density residential development than in rural environments, with a variety of lot sizes and housing types (GRZ-O1 and GRZ-O2). Lot 1 already contains a dwelling with established services. Lot 2 is large enough to contain a dwelling, outdoor living space, parking and manoeuvring, and the rules for height, recession planes and setbacks will apply to any dwelling on it.

GRZ-R3 permits one residential unit per site. Each lot would carry one unit, so the density of development that the subdivision enables is one dwelling per 407 m^2 at its greatest. This is within the range the Plan anticipates. Any adverse effect on character and amenity from the lot sizes is less than minor.

Building platform on Lot 2 (SUB-S2)

The matters of discretion are lot area and dimensions for the intended use, operational and maintenance needs, compatibility with the surrounding pattern, physical constraints, and whether another building platform is available.

Lot 2 is 407 m^2 and has a designated building platform that the geotechnical engineer has assessed as suitable. The only constraint on the envelope is the 4.0 m wide Easement B over the public stormwater main, which must be kept clear of buildings. A dwelling can be designed around that constraint, for example with a narrower footprint, and it must in any case meet the zone standards.

The shortfall against the 14 m x 14 m envelope does not prevent a dwelling being built, and its effects are less than minor.

Impermeable surfaces and stormwater (GRZ-R2)

The matters of discretion are addressed in section 6.6 of the civil report and in summary are as follows.

- Lawn and landscaped areas are retained on Lot 1 where practicable.
- A 3,000 L detention tank limits peak discharge from Lot 1 to that of a site complying with the 50 per cent limit, for the 20% AEP and 1% AEP events plus climate change.
- Lot 1 is connected to the public network, so no on-site effluent or stormwater disposal near neighbours or waterbodies is needed.
- The subdivision does not materially increase the existing impermeable area, and attenuation avoids any increase in peak flow to the downstream catchment.

- The site is near a local high point, has no flood hazard, and discharges to no natural waterbody.

A consent notice on Lot 2 will require future development to comply with the 50 per cent limit or to provide its own attenuation. Effects on stormwater are less than minor.

Transport, access and the shared crossing (TRAN-R2 and S2)

The matters of discretion are the use, location, design and number of crossings, alternative access, effects on the transport network, sight distance, separation, manoeuvring and the type of vehicles.

A single crossing is retained and moved to align with the right of way, so no additional access point is created onto Kerikeri Road. The site has frontage to no other road. The crossing will be built as a shared residential crossing to Sheet 18 of the Engineering Standards, with tracking confirmed at detailed design.

Sight distance exceeds 70 m to the south-west. About 40 m is available to the north-east, where the nearby roundabout reduces vehicle speeds. The crossing is also about 40 m from the roundabout. These two matters fall short of the TRAN-Table 8 and 9 figures, depending on the road classification. The engineer considers the arrangement acceptable, and the crossing is the existing means of access for the dwelling.

The subdivision will add one further dwelling at a later juncture, which will generate typical residential movements of around 8 to 10 vehicle movements a day. The applicant accepts conditions to keep the sightlines at the crossing clear, and the crossing design remains subject to Council approval. On this basis, effects on the safety and efficiency of Kerikeri Road are less than minor.

Servicing and infrastructure

Both lots connect to Council reticulated water, wastewater and stormwater. Council has advised that the low pressure sewer has capacity for the additional connection. The pump chamber is relocated into Lot 1, and each lot will have its own grinder pump with at least 12 hours of emergency storage. Council is to confirm water capacity and pressure, and final connection details are subject to Council approval.

Electricity and telecommunications are available to Lot 2 through Easement A. The 300 mm public stormwater main is protected by Easement B in favour of Council, and a consent notice will keep buildings clear of it. Servicing effects are less than minor.

Natural hazards and ground conditions

Section 106 of the RMA is satisfied. The site is in a Low Stability Hazard Zone, has negligible liquefaction risk, and is not susceptible to flooding or erosion.

Shallow foundations on natural soil or engineered hardfill are suitable on Lot 2, with an ultimate bearing capacity of 300 kPa and expansive soil Class M requiring specific engineering design. A consent notice will record the foundation requirements.

Amenity during works

The removal of the garage, sleepouts, patio and concrete, the formation of the accessway and the service connections are short term and small in scale. They will be managed under the construction noise limits and the Engineering Standards. Demolition will be carried out under building consent, with an asbestos survey where the age of the buildings requires one.

No new building is proposed, so there is no new shading, privacy or visual dominance effect on neighbours. Any dwelling on Lot 2 will be assessed against the zone standards when it is designed.

Heritage, cultural and ecological values

No heritage resource, site or area of significance to Māori, notable tree or indigenous vegetation is identified on the site. An accidental discovery protocol is offered as an advice note.

Contaminated land

The site has been in residential use since the residential subdivision was created in the 1970s. No activity on the Hazardous Activities and Industries List has been identified, so the NES-CS is not triggered.

Section 104(1)(ab), measures to achieve positive effects

The subdivision makes efficient use of serviced urban residential land in the General Residential zone and enables one additional dwelling close to the centre of Kerikeri. It uses existing infrastructure. It also brings the access and crossing up to current Engineering Standards, and introduces stormwater attenuation on Lot 1 that does not exist today.

Section 104(1)(b), national and regional instruments

- **NPS-UD.** To the extent that it applies, the proposal contributes to a well-functioning urban environment by adding housing on existing serviced urban land (Objective 1 and Policy 1).
- **NPS-HPL.** The site is zoned General Residential, an urban zone, and does not meet the clause 3.4 definition of highly productive land. The NPS-HPL does not apply.
- **NES-CS.** No HAIL activity is identified, and the NES-CS is not triggered.
- **NES-FW and NPS-IB.** No work is proposed in or near any wetland, watercourse or area of indigenous vegetation.
- **NZCPS.** The site is not in the coastal environment.
- **Regional Policy Statement and regional plans.** The proposal supports planned and efficient urban growth on serviced land. Stormwater discharges to the public network

and wastewater to the public sewer, and no large scale earthworks are needed, so no regional consent is required.

Section 104(1)(b)(vi), objectives and policies of the PDP

The relevant objectives and policies of the Subdivision, General Residential and Transport chapters are assessed below. The Plan itself anticipates two residential units on a site of this size. Under GRZ-R3, one unit per site is permitted and two units per site is a Restricted Discretionary Activity. The subdivision gives each unit its own title rather than adding intensity beyond what the zone contemplates.

Ref	Objective or policy	Assessment
SUB-O1	Efficient use of land that achieves zone objectives and local character, avoids reverse sensitivity, and manages effects.	The subdivision makes efficient use of serviced urban land, creating lots that suit the zone and the established residential pattern. It creates no reverse sensitivity or hazard risk. **Consistent**
SUB-O2	Protection of natural features, landscapes, indigenous vegetation, sites of significance to Māori and historic heritage.	None of these values is identified on or near the site. **Consistent**
SUB-O3	Infrastructure is planned to service the subdivision.	Both lots connect to existing Council networks, and the civil report confirms the connection details. **Consistent**
SUB-O4	Subdivision is accessible, connected and integrated.	Both lots use one safe crossing to Kerikeri Road, which has a footpath and kerb along the frontage. **Consistent**
SUB-O5 and SUB-O6	Highly productive land, and sequenced growth that infrastructure can support.	The site is not highly productive land. Growth is accommodated on existing infrastructure with capacity confirmed by Council. **Consistent**
SUB-P3	Provide for allotments that are consistent with the planned environment, comply with minimum sizes, are of adequate size and shape for a building platform, and have legal and physical access.	The lots are consistent with the planned environment and have legal and physical access. They do not meet the Controlled minimum size but exceed the Discretionary minimum. Lot 1 has an established platform and Lot 2 has a designated platform that is tight against a 14 m x 14 m envelope. **Generally consistent**

Ref	Objective or policy	Assessment
SUB-P4	Subdivision design and layout in the General Residential zone, including minimising crossings.	A single crossing is retained, there is no cul-de-sac or new road, and emergency vehicles can reach both lots from Kerikeri Road. **Consistent**
SUB-P5	Infrastructure provided in an integrated and comprehensive manner.	Both lots are serviced from existing networks. **Consistent**
SUB-P11	Matters to consider, including reverse sensitivity, scale and density, infrastructure, hazards and heritage.	None of these matters is adversely affected. **Consistent**
SUB-P1, P2, P6 to P10	Boundary adjustments, public works, esplanades, rural subdivision, highly productive land and minor residential units	Not relevant to this proposal. **N/A**
GRZ-O1 and O2	A variety of densities, housing types and lot sizes, and consolidation around available infrastructure.	The subdivision provides two lots of a size that suits compact urban housing, on land with existing infrastructure. **Consistent**
GRZ-O4	Subdivision is supported where infrastructure has capacity.	Council has advised there is wastewater capacity and has yet to confirm water capacity, which is secured by condition. **Consistent**
GRZ-O5	Functional, high amenity living environments.	Each lot can provide a dwelling, outdoor living space and parking. **Consistent**
GRZ-O6	Resilience to climate change.	Stormwater attenuation is designed using climate adjusted rainfall. **Consistent**
GRZ-P1 and P2	Enable subdivision and a range of residential development where infrastructure is adequate and the planned character is maintained.	Infrastructure is adequate and the proposal fits the planned residential environment. **Consistent**

Ref	Objective or policy	Assessment
GRZ-P5 and P6	Encourage on-site water storage, and energy efficient design.	The Lot 1 detention tank adds on-site storage, and design of a dwelling on Lot 2 can respond to these policies. **Consistent**
GRZ-P7	Matters to consider, including scale and character, shading, privacy, outdoor living space, infrastructure and hazards.	Each matter is addressed in Section 8, and none is adversely affected. **Consistent**
GRZ-O3, P3, P4	Non-residential activities and retirement villages	Not relevant. **N/A**
TRAN-O3 and O4	Access provisions support land use and the network operates safely and efficiently.	A single shared crossing built to current standards serves both lots. The sight distance shortfall to the north-east is subject to Council approval. **Generally consistent**
TRAN-P3	Safe, efficient and well connected operation through management of crossings, sightlines and access design.	No additional crossing is created. The sightline and separation shortfalls are addressed through the engineer's assessment and Council approval of the design. **Generally consistent**
TRAN-P7	Matters to consider, including road classification, access design and connectivity.	No adverse transport effect is expected from one additional dwelling. **Consistent**

Objectives and policies of the Operative Plan

Ref	Objective or policy	Assessment
7.3.1, 7.3.3, 7.3.4 and 7.4.1	Avoid, remedy or mitigate effects on natural resources and on amenity values of urban environments, and maintain amenity.	The subdivision adds no building and has no adverse effect on amenity. **Consistent**
7.4.3 and 7.4.8	Adverse effects on publicly provided services avoided, and infrastructure designed to avoid adverse effects.	Existing capacity is used and connections are built to Council standards. **Consistent**

Ref	Objective or policy	Assessment
7.4.4	Stormwater systems minimise adverse effects.	Lot 1 attenuation limits discharge to that of a compliant site. **Consistent**
7.4.5(g)	Avoid adverse effects on the safety and efficiency of the roading network.	One crossing is retained and relocated. Effects are less than minor, subject to Council approval. **Generally consistent**
7.6.3.1 and 7.6.3.2	Similar densities to those prevailing, and compatible activities.	One dwelling per lot is the prevailing pattern. **Consistent**
7.6.4.7 to 7.6.4.10	Sufficient land per household for outdoor space, planting, parking and manoeuvring, limited impermeable coverage, and access to sunlight and privacy.	Each lot provides these. Lot 1 exceeds the impermeable standard but its discharge is attenuated. **Generally consistent**
7.6.3.3 and 7.6.4.11	Special amenity of Kerikeri Road frontage sites, where built form stays small, set back and inconspicuous.	To the extent that these apply, the existing dwelling and frontage are unchanged. **Consistent**
13.3.1, 13.3.2 and 13.3.5	Subdivision consistent with zone purpose, effects avoided or mitigated, and water supply and stormwater management provided.	The lots suit the zone, effects are less than minor, and water and stormwater are provided. **Consistent**
13.3.8 and 13.3.10	Electricity supply, and efficient provision of infrastructure and services.	Power and telecommunications are available to both lots. **Consistent**
13.4.1	Lot sizes and distribution determined with regard to effects on amenity and existing land uses.	Effects on amenity and neighbouring uses are less than minor. **Consistent**
13.4.2 and 13.4.5	Safe and effective vehicular access, and servicing that avoids adverse effects on neighbours and public roads.	Access is by a single sealed shared crossing and servicing is from existing networks. **Generally consistent**
13.4.14 and 13.4.15	Zone provisions considered, and lot layout and orientation supporting energy efficiency.	Lot 2 can be built with a north, east or west facing living area. **Consistent**

Section 104(1)(b), weighting of the relevant planning instruments

The PDP chapters relied on are the Appeals Version of 20 August 2026. New provisions sought by appeal have no legal effect and attract little or no weight, and none is relied on. Decisions version provisions that remain under appeal, including SUB-S1, carry reduced weight relative to settled provisions. The operative provisions that cover the same matters continue to apply and are considered alongside them. The outcome is the same under both plans. Both set the Controlled and Discretionary minimum sizes at 600 m^2 and 300 m^2 for a sewered lot, both make the subdivision a Discretionary Activity, and both support lots of this size where services are adequate.

On balance, the objectives and policies of both plans support this consent application.

Section 104(1)(c), other matters

There are no other matters considered relevant to the determination of this application.

9. Notification

Public notification, section 95A. Public notification is not mandatory at Step 1, because the applicant has not requested it, no further information request is outstanding, and the application does not involve the exchange of recreation reserve land. It is not precluded at Step 2. At Step 3, no rule or national environmental standard requires public notification. Any adverse effects on the environment would be less than minor, for the reasons set out at Section 8. At Step 4, there are no special circumstances. The application can be processed without public notification.

Limited notification, section 95B. There are no affected protected customary rights groups or customary marine title groups, and no statutory acknowledgement is triggered, at Step 1. Limited notification is not precluded at Step 2. At Step 3, no person is considered to be affected in terms of section 95E, for the following reasons.

- The PDP expressly provides for subdivision of the General Residential zone to a minimum of 300 m^2 as a Discretionary Activity. The zone is intended for higher density residential development with a variety of lot sizes, so lots of 475 m^2 and 407 m^2 are an anticipated outcome rather than an unexpected one.
- Each lot is self contained. Both lots connect to their own public water, wastewater and stormwater services, stormwater from Lot 1 is attenuated, and access is provided by an easement over Lot 1 within the site. Effects are internalised and none is passed to neighbouring properties.
- No new building, earthworks or vegetation clearance is proposed, so there is no change to shading, privacy, outlook or visual dominance for the adjoining sites at 139 and 143 Kerikeri Road.

- The one additional dwelling that the subdivision enables will be subject to the permitted standards for height, recession planes, setbacks and outdoor living space, which protect neighbouring amenity when it is built.
- The crossing and access are the existing arrangement, with the crossing relocated within the road frontage of the applicant's own site.

No special circumstances arise at Step 4. The potential adverse effects of the proposal are less than minor, and the application can proceed on a non-notified basis.

10. Part 2 of the RMA

Purpose, section 5

The proposal enables people and communities to provide for their social and economic wellbeing through additional housing on serviced urban land. It sustains the potential of natural and physical resources, safeguards the life supporting capacity of air, water, soil and ecosystems, and avoids, remedies or mitigates adverse effects on the environment.

Matters of national importance, section 6

The site is not subject to any matter of national importance. There are no heritage resources, sites of significance to Māori, outstanding landscapes, natural character areas or areas of significant indigenous vegetation on or adjacent to the site.

Other matters, sections 7 and 8

The proposal makes efficient use of existing urban land and infrastructure (section 7(b)), maintains amenity values and the quality of the environment (section 7(c) and (f)), and designs stormwater for climate change (section 7(i)). It raises no matter engaging the principles of the Treaty of Waitangi under section 8.

The proposal is consistent with Part 2.

11. Overall Conclusion

This application seeks resource consent for a subdivision of Lot 10 DP 79582 at 141 Kerikeri Road, Kerikeri, creating Proposed Lot 1 (475 m^2) and Proposed Lot 2 (407 m^2) from the existing title.

Both lots are below the 600 m^2 Controlled activity minimum allotment size for the General Residential zone, and both exceed the 300 m^2 Discretionary minimum. The subdivision is accordingly assessed as a Discretionary Activity under Rule SUB-R3 of the PDP, and under the Operative Plan. The tight 14 m x 14 m envelope on Lot 2, the impermeable surface coverage on Lot 1 and the shared crossing under TRAN-R2 are bundled within that status. Both lots are in an established urban area, are serviced from existing public networks, and are consistent with the form of development the zone anticipates.

Based on the assessment above, the potential adverse effects on the environment would be less than minor and can be managed through appropriate conditions. The proposal is also consistent with the relevant objectives and policies and with the higher order statutory provisions.

On this basis, it is considered that the application can be processed on a non-notified basis and granted subject to conditions.

Please do not hesitate to contact me should you require any additional information.

Kind regards

Steven Sanson

Consultant Planner

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **NA36B/922**

Land Registration District **North Auckland**

Date Issued 17 November 1976

Prior References
NA16A/1020

Estate Fee Simple

Area 882 square metres more or less

Legal Description Lot 10 Deposited Plan 79582

Registered Owners

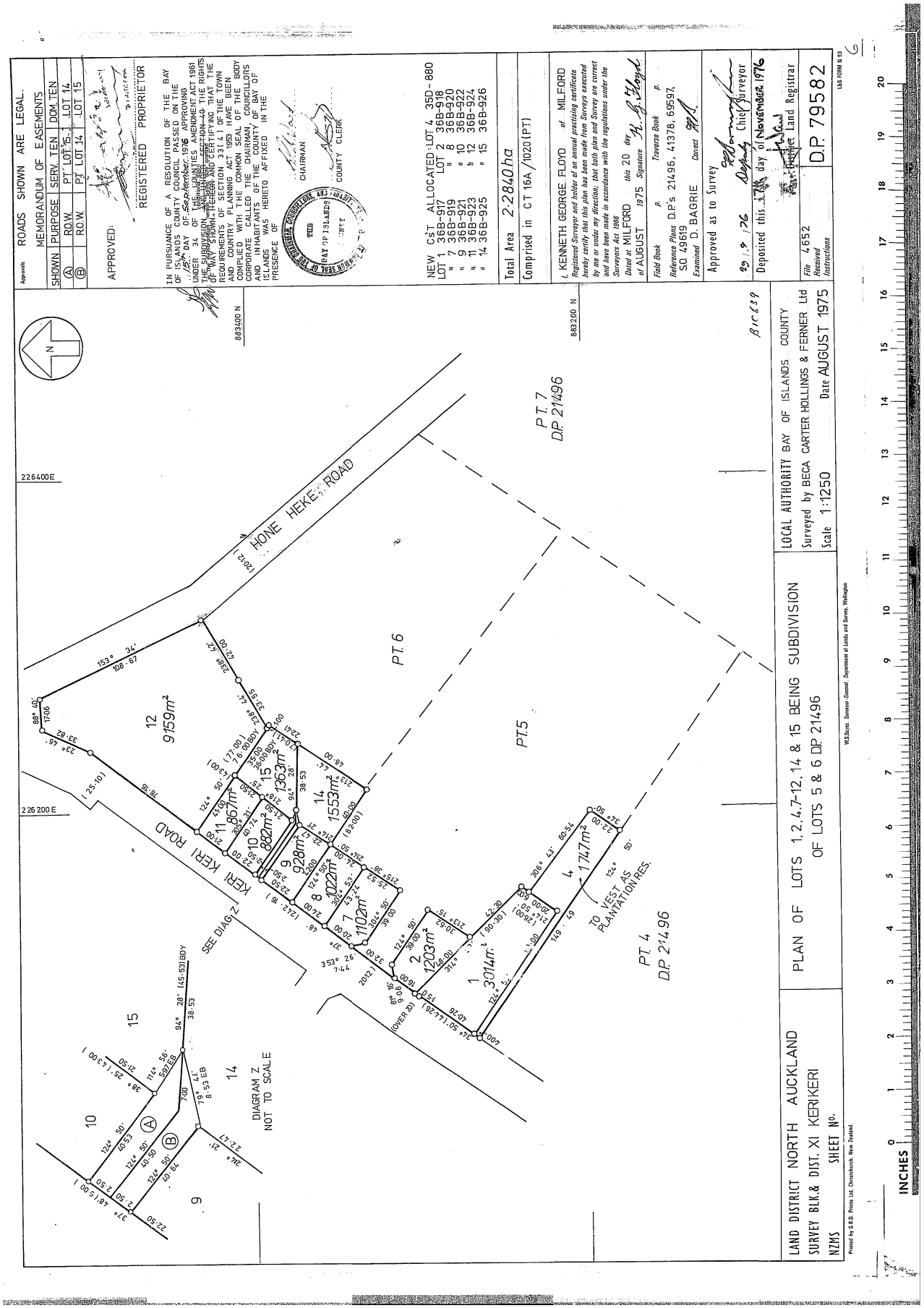
Colin Stuart Taylor and Jacqueline Tina Taylor as to a 1/2 share

Matthew William Taylor as to a 1/2 share

Interests

Land Covenant in Transfer 549096.1 - 8.11.1977 at 9.00 am

13710927.3 Mortgage to ANZ Bank New Zealand Limited - 13.10.2026 at 11:16 am


Approvals
ROADS SHOWN ARE LEGAL.
MEMORANDUM OF EASEMENTS
SHOWN | PURPOSE | SERV. TEN | DOM. TEN
Ⓐ | R.O.W. | PT LOT 15 | LOT 14
Ⓑ | R.O.W. | PT LOT 14 | LOT 15
APPROVED:
REGISTERED PROPRIETOR
IN PURSUANCE OF A RESOLUTION OF THE BAY OF ISLANDS COUNTY COUNCIL PASSED ON THE 15th DAY OF September 1976 APPROVING UNDER 34 OF THE COUNTIES AMENDMENT ACT 1961 THE SUBDIVISION AS SHOWN HEREON AND CERTIFYING THAT THE REQUIREMENTS OF SECTION 3 (1) (c) OF THE TOWN AND COUNTRY PLANNING ACT 1953 HAVE BEEN COMPLIED WITH. THE COMMON SEAL OF THE BODY CORPORATE CALLED THE CHAIRMAN, COUNCILLORS AND INHABITANTS OF THE COUNTY OF BAY OF ISLANDS WAS HERETO AFFIXED IN THE PRESENCE OF
CHAIRMAN
COUNTY CLERK
NEW C&T ALLOCATED LOT 4 35D-880
LOT 1 36B-917 LOT 2 36B-918
" 7 36B-919 " 8 36B-920
" 9 36B-921 " 10 36B-922
" 11 36B-923 " 12 36B-924
" 14 36B-925 " 15 36B-926
Total Area 2.2840ha
Comprised in CT 16A/1020(PT)
I, KENNETH GEORGE FLOYD of MILFORD
Registered Surveyor and holder of an annual practising certificate hereby certify that this plan has been made from Surveys executed by me or under my direction; that both plan and Survey are correct and have been made in accordance with the regulations under the Surveyors Act 1966
Dated at MILFORD this 20 day of AUGUST 1975 Signature
Field Book p. Traverse Book p.
Reference Plans D.P's 21496, 41378, 69597, SO 4969
Examined D. BAGRIE Correct
Approved as to Survey
29.9.76
Deposited this 17th day of November 1976
Assistant Land Registrar
File 4652
Received
Instructions
D.P. 79582
LOCAL AUTHORITY BAY OF ISLANDS COUNTY
Surveyed by BECA CARTER HOLLINGS & FERNER Ltd
Scale 1:1250 Date AUGUST 1975
PLAN OF LOTS 1, 2, 4, 7-12, 14 & 15 BEING SUBDIVISION OF LOTS 5 & 6 DP 21496
LAND DISTRICT NORTH AUCKLAND
SURVEY BLK. & DIST. XI KERIKERI
NZMS SHEET N°.
HONE HEKE ROAD
KERI KERI ROAD
PT 6
PT 5
PT 7 DP 21496
PT 4 DP 21496
226400E
226200E
883400 N
883200 N
SEE DIAGRAM Z
DIAGRAM Z NOT TO SCALE
TO VEST AS PLANTATION RES.
INCHES

KERIKERI ROAD

CONCRETE ROUNDABOUT BYPASS

KERB AND CHANNEL

KERB AND CHANNEL

GARDEN

FOOTPATH

POWER POLE

POWER PLINTH
TELECOM PLINTH

37°50' (22.00) 18.0m

CONCRETE

ROOF LINE

WATER METER

GRAVEL

HOUSE

LOT 1
0.0475ha

COVERED DECK

125°33' (40.74)

FENCE

COVERED PATIO TO BE REMOVED

CONCRETE TO BE REMOVED

19.3m

DECK

POSSIBLE MANHOLE LOCATION (METAL DETECTOR SIGNAL ONLY)

LOT 11
DP 79582

DRAFT

4.0m

CONCRETE DRIVE

GARAGE TO BE REMOVED

A

PATH

22.1m

SEWER PUMP CHAMBER

LOT 2
0.0407ha

SLEEP OUT TO BE REMOVED

4.0m

SLEEP OUT TO BE REMOVED

124°52' (40.53)

18.5m

SEWER LINE FROM FNDC AS BUILTS

INDICATIVE FNDC STORMWATER LINE ENDS NOT FOUND

2.0m 2.0m

FENCE

38°27' 21.50

B

LOT 15
DP 79582

BOUNDARY KIT

MANHOLE LOCATION (BURIED 0.2m DEEP)

0 2.5 5 7.5 10m

0 2 4 6 8 10 12 14 16m

PROPOSED MEMORANDUM OF EASEMENTS IN GROSS			
PURPOSE	SHOWN	BURDENED LAND	GRANTEE
RIGHT TO DRAIN WATER	B	LOT 2 HEREON	FAR NORTH DISTRICT COUNCIL

PROPOSED MEMORANDUM OF EASEMENTS			
PURPOSE	SHOWN	BURDENED LAND	BENIFITTED LAND
RIGHT OF WAY RIGHT TO DRAIN WATER RIGHT TO CONVEY ELECTRICITY, WATER and TELECUMMINCATIONS	A	LOT 1 HEREON	LOT 2 HEREON

GENERAL NOTES

1. Coordinates in terms of:
   Mount Eden Circuit 2000
2. Levels in terms of Vertical Datum 2016
   Surveyors Ref: GSKK (SMARTFIX)
   RL=80.01m
3. Contour Intervals
   Major Intervals: 1.0m
   Minor Intervals: 0.5m

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	Name	Date
Surveyed	MP	Sept 26
Drawn	WF	Sept 26
Appended		

Address 141 Kerikeri Road , Kerikeri
Title NA36B/922 Area 0.0882 ha.

JOB/CLIENT:

Colin Taylor

KERIKERI

SHEET TITLE:

PROPOSED SUBDIVISION of LOT 10 DP 79582

DRAFT

Williams & King
Registered Land Surveyors, Planners & Land Development Consultants
27 Hobson Ave
PO Box 937, Kerikeri
Tel: 09-407 6030
Email: kerikeri@saps.co.nz

Job No: 24912
File: TAYLOR GPS Scheme proposal.lcd

SCALE @ A3 1:200

SHEET No 1/1

Wilton Joubert Limited
09 527 0196
498 Hibiscus Coast Highway
Orewa, Auckland, 0931

SITE	**141 Kerikeri Road, Kerikeri**
LEGAL DESCRIPTION	**Lot 10 DP 79582**
PROJECT	**Proposed 2-Lot Subdivision**
CLIENT	**Colin Taylor**
REFERENCE NO.	**150100**
DOCUMENT	**Civil Site Suitability Report**
STATUS/REVISION NO.	**01 – Resource Consent**
DATE OF ISSUE	**30 October 2026**

Report Prepared For	Email
Colin Taylor	c.taylor@barfoot.co.nz

Authored by	**P. McSweeney** *(BE(Hons) Civil)*	Civil Engineer	patrick@wjl.co.nz	
Approved by	**B. Steenkamp** *(CPEng, BEng Civil, CMEngNZ, BSc (Geology))*	Senior Civil Engineer	bens@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.

Parent Lot Legal Description:	Lot 10 DP 79582
Lot Sizes:	Proposed Lot 1 – 475m² Proposed Lot 2 – 407m²
Development Type:	1-into-2 lot subdivision
Scope:	Civil Site Suitability Investigation: - Wastewater Assessment - Stormwater Assessment - Water Supply Assessment - Access Assessment
Development Proposals Supplied:	Subdivision Scheme Plan by Williams & King (Job No: 24912, dated: Sept 26).
District Plan Zone:	General Residential Zone
Wastewater:	• Council has advised that the existing LPS network has capacity for the additional connection. A new connection and boundary kit are required. • Relocate the existing pump station into Lot 1 and retain/cap the private rising main for a future Lot 2 grinder pump. Final details are subject to FNDC and supplier approval.
Stormwater Management:	• Each lot is to have an independent connection to the existing 300mmØ public stormwater main crossing the site. • Lot 1 exceeds the permitted 50% impermeable coverage and will require on-lot attenuation to restrict peak discharge to the equivalent permitted-coverage flow rate. • Future development of Lot 2 must either comply with the 50% coverage limit or provide separate on-lot attenuation. • Final attenuation and connection details are subject to detailed design and FNDC approval.
Water Supply:	• Retain the existing connection and meter for Lot 1. Provide Lot 2 with a new connection from the 40mmØ rider main and a meter adjacent to the existing meter. • FNDC is to confirm adequate network capacity and pressure.
Access:	• Both lots are to use a shared ROW. Relocate and upgrade the existing crossing to align with the ROW and comply with FNDC Sheet 18. • Provide an approximately 4.0m-wide ROW with a minimum 3.0m sealed carriageway. Existing structures within the ROW are to be removed. • Sight distance exceeds 70m to the south-west. The approximately 40m available to the north-east is considered acceptable due to reduced speeds at the nearby roundabout, subject to FNDC approval.

2 INTRODUCTION

2.1 SCOPE OF WORK

Wilton Joubert Limited (WJL) was engaged by the client to undertake a civil site suitability assessment (wastewater, stormwater, water supply & access assessment) to support a 1-into-2 lot subdivision of Lot 10 DP 79582, as depicted to us on the supplied Subdivision Scheme Plan by Williams & King (Job No: 24912, dated: Sep 26).

Aside from existing structures / surfacing indicated as being proposed to be removed in the provided Scheme Plan, no development plans have been supplied to WJL for any future development at the proposed lots at the time of report-writing.

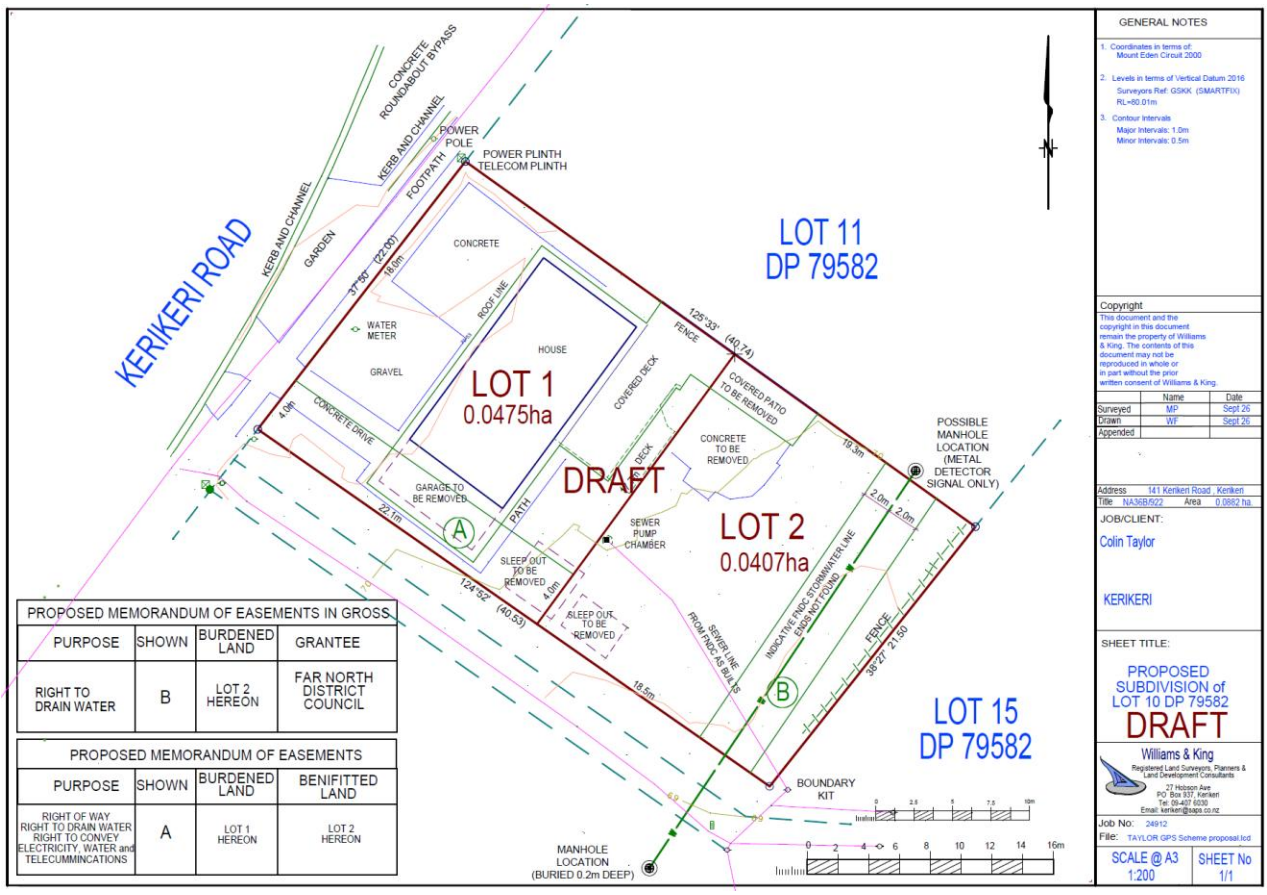


Figure 1: Subdivision Scheme Plan by Williams & King.

Any revision of the supplied drawings and/or development proposals with wastewater, stormwater, water supply and/or access implications should be referred back to us for review. This report is not intended to support Building Consent applications for the future proposed lots, and any revision of supplied drawings and/or development proposals including those for Building Consent, which might rely on wastewater, stormwater, water supply and/or access assessments herein, should be referred to us for review.

3 SITE DESCRIPTION

The rectangular shaped parent lot, legally described as Lot 10 DP 79582, is 882m² in area and is accessed at the western boundary corner via an existing concrete driveway from Kerikeri Road. Existing built development is generally confined to the northwestern portion of the site and comprises an existing dwelling with an attached garage, two sleepouts, gravel and concrete parking areas along the road frontage and concrete patio areas. The southeastern portion is generally covered in lawn, gardens and small trees and bushes along the perimeter.

Topographically speaking, the site is situated on a broad volcanic plateau and is near level to gently sloping, falling to the southeast at inclinations averaging less than 3°.

The Far North District Council (FNDC) online GIS Water Services Map indicates that water, wastewater and stormwater reticulation services exist within or in proximity to the property:

- The existing dwelling within proposed Lot 1 is serviced by an existing water connection and meter supplied from a public 40mmØ rider main located within the southern berm of the Kerikeri Road reserve. A public 150mmØ water main is also located within the Kerikeri Road reserve on the opposite side of the road to the subject site.
- An existing on-site wastewater pump chamber services the existing dwelling, with the pump station being located within the extent of proposed Lot 2 connected to a boundary kit on the public low-pressure sewer system on the south-western corner of the subject site. An LPS main is located through the southern Kerikeri Road berm.
- A 300mmØ stormwater line runs through the south-eastern portion of the site, generally offset approximately 3.7m to 5.7m to the south-eastern boundary. The upstream and downstream manholes are located within the northern and southern neighbouring properties respectively. No depth/invert information is available via FNDC maps.

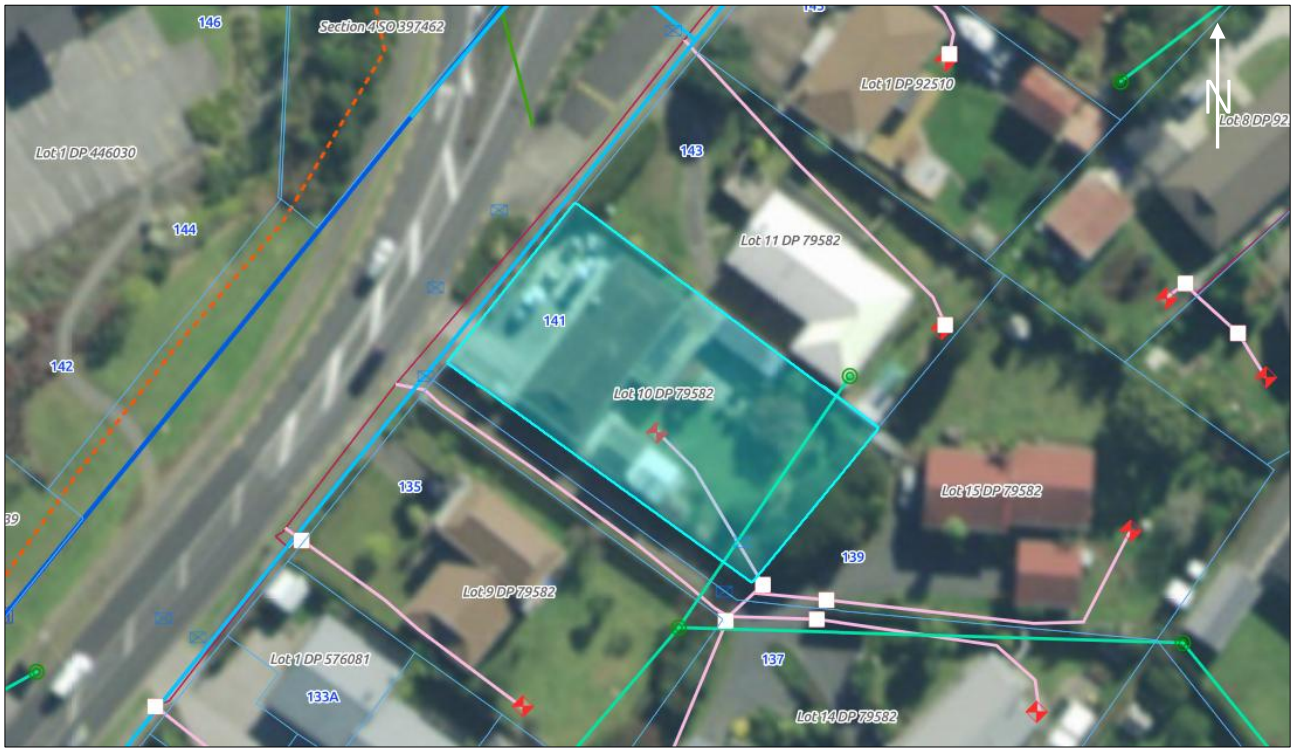


Figure 2: Aerial view with the subject property highlighted in cyan (from Far North District Council's online GIS database).

4 SUBDIVISION PROPOSALS

In reviewing the supplied Subdivision Scheme Plan (see Figure 1), it is our understanding that the client intends to subdivide the property into two lots with areas of 475m² and 407m², being referred to herein as proposed Lots 1 & 2 respectively.

The lots are to be accessed from a shared Right of Way (ROW) on the south-western boundary, extending from Kerikeri Road. The easement (easement A in provided scheme plan) will be registered for ROW, telecommunications, electricity, water supply, and right to drain water.

5 WASTEWATER

It is proposed that the two-lot subdivision be serviced by the existing low-pressure sewer (LPS) network within Kerikeri Road. Council has advised that the existing public LPS main within the Kerikeri Road reserve has capacity to accommodate an additional connection.

The existing wastewater pump chamber serving the dwelling is located within proposed Lot 2. It is recommended that the pump station be disconnected from the existing rising main, relocated to within the extent of Lot 1, and connected to a new private rising main. A new connection and boundary kit should be installed on the existing public LPS main within the Kerikeri Road reserve. The boundary kit should include an isolation valve, flushing access point and non-return valve in accordance with FNDC requirements.

The existing private rising main extending through the south-western portion of the parent site may be retained and incorporated into the proposed servicing arrangement, subject to its location, condition and suitability being confirmed during detailed design. The line should be temporarily capped within Lot 2, as indicated on the concept plan, to allow a future pump station serving Lot 2 to connect to it. Any private wastewater infrastructure crossing a lot boundary should be protected by an appropriate easement, with ownership and maintenance responsibilities confirmed as part of the subdivision documentation.

Each lot should ultimately be serviced by an individual proprietary grinder-pump system. The pump chambers should be located within the respective property boundaries and positioned to allow gravity drainage from the dwellings while maintaining suitable access and separation from buildings. The required pump duty, chamber size and emergency storage volume should be confirmed at Building Consent stage once the dwelling layouts and anticipated occupancy are known. A minimum of 12 hours' emergency storage should be provided, subject to confirmation against the applicable FNDC and proprietary supplier requirements.

Final pump selection, connection details and confirmation of the servicing arrangement will be subject to FNDC approval and review by the relevant proprietary pressure-sewer supplier.

6 STORMWATER MANAGEMENT

6.1 ASSESSMENT CRITERIA

District Plan Requirements

The site is zoned General Residential under the Proposed Far North District Plan.

Rule GRZ-R2 PER-1 requires the impermeable surface coverage of each site to be no more than 50%. Based on the proposed lot areas, the maximum permitted impermeable coverage is summarised below.

Table 1: Proposed Lots Maximum Permitted Impermeable Coverage

Lot	Maximum Permitted Impermeable Area (50%)
1	237.5 m²
2	203.5 m²

Approximately 66m² of sealed access is allocated to Lot 1 for the proposed 3.0m-wide shared ROW. Following subdivision and construction of the shared access, Lot 1 will have an impermeable area of approximately 358m², equivalent to 75.4% of the lot area. Lot 1 will therefore exceed the permitted 50% coverage under GRZ-R2 PER-1.

No development proposal is currently available for Lot 2. Future development within Lot 2 should either comply with the 50% permitted impermeable-surface coverage or provide stormwater attenuation to mitigate the additional runoff.

An assessment against the restricted discretionary matters under GRZ-R2 is provided in Section 6.6.

Stormwater Management Approach

Primary stormwater runoff from both lots should be collected and discharged to the existing public stormwater network.

Stormwater attenuation will be provided for Lot 1 to limit peak discharge to the equivalent runoff generated from a site complying with the 50% permitted coverage. If future development within Lot 2 exceeds the permitted coverage, separate on-lot attenuation should also be provided.

Attenuation should be provided for the 20% AEP plus climate change and 1% AEP plus climate change storm events.

Stormwater Design Parameters

The attenuation system has been modelled using HydroCAD® and a Type IA 24-hour rainfall distribution. Design rainfall depths have been obtained from HIRDS and adjusted to account for climate change.

The adopted rainfall depths and other modelling parameters are provided in the appended stormwater calculations.

6.2 ON-LOT PRIMARY STORMWATER MANAGEMENT

6.2.1 Roof Runoff

Runoff from existing and future roof areas should be collected by a proprietary gutter and downpipe system and conveyed to the relevant attenuation system or stormwater discharge point through sealed pipes.

Leaf screens or filters may be installed to reduce the potential for debris to enter and obstruct the stormwater system.

6.2.2 Hardstand Runoff

Concrete and other impermeable hardstand areas should be graded to direct runoff to catchpits or grated channel drains. Collected runoff should be conveyed to the stormwater discharge point through sealed pipes.

Catchpits should incorporate suitable sumps to provide basic sediment capture before discharge.

6.3 PRIMARY STORMWATER DISCHARGE

An existing 300mmØ public stormwater main crosses the eastern portion of the site in a generally north-east to south-west direction.

The alignment and depth of the public main, together with the location and condition of any existing private connection, should be confirmed before detailed design. Each lot should ultimately have an independent stormwater connection.

The existing connection may be retained to service Lot 1 if it is located and confirmed to be suitable. A separate connection should be provided for Lot 2. If the existing connection cannot be retained, new connections will be required for both lots.

All proposed connections to the public stormwater network will be subject to FNDC approval.

6.4 PRIMARY RUNOFF ATTENUATION

Where the impermeable coverage of a lot exceeds the permitted 50% threshold, on-lot attenuation should be provided to limit peak discharge to the equivalent flow generated from the permitted impermeable area.

Attenuation should be provided for the 20% AEP plus climate change and 1% AEP plus climate change storm events.

No development proposal is currently available for Lot 2. The attenuation design provided with this report therefore applies only to Lot 1. Future development within Lot 2 should either:

- comply with the 50% permitted impermeable coverage; or
- provide a separate attenuation system designed to control runoff to the equivalent permitted-coverage discharge rate.

6.4.1 Lot 1 Detention Requirements

Based on the appended design calculations, the preliminary Lot 1 attenuation system comprises the following:

Proposed Tank	1 x 3,000 litre Slimline Detention Tank
Tank dimensions	2250mm long x 570mm wide x 2100mm high (assumed)
Outlet orifice (20% AEP control)	28mm diameter orifice; located >150mm above the tank base - 970mm water elevation - 1.5m³ Storage
Outlet orifice (1% AEP control)	28mm diameter orifice; located 970mm above the 20% AEP control orifice - 1604mm water elevation - 2.5m³ Storage
Overflow Outlet	100mm diameter; located at the top of the tank

The downpipes from the roof area of the existing dwelling on Lot 1 should be rerouted to the new detention tank. The detention tank outlet should be directed to the existing discharge point in accordance with Section 6.3 of this report.

6.5 SECONDARY STORMWATER

The site is located near a local high point and does not receive runoff from a significant upstream catchment. Significant secondary stormwater flows are therefore not expected to enter the site.

Future development should preserve safe overland flow paths around buildings. Finished ground levels should direct runoff away from structures and adjoining properties. Emergency overflows from stormwater devices should be conveyed toward the approved discharge point without creating ponding or increasing flood risk on neighbouring land.

6.6 DISTRICT PLAN ASSESSMENT

Following subdivision, the impermeable surface coverage within proposed Lot 1 will exceed the permitted threshold under GRZ-R2 PER-1. The non-compliance primarily results from the reduced area of Lot 1 following subdivision and the shared access requirements, rather than a substantial increase in overall site development.

Stormwater attenuation is proposed to mitigate the potential runoff effects. The relevant restricted discretionary matters are addressed below.

Matter of Discretion	Response
(a) the extent to which landscaping or vegetation may reduce adverse effects of run off;	Existing lawn and landscaped areas within Lot 1 will be retained where practicable, helping to provide incidental infiltration and reduce runoff. Stormwater attenuation will provide the principal mitigation for the impermeable surface exceedance.
(b) the effectiveness of the proposed method for controlling stormwater on site;	Runoff from Lot 1 will be directed to a detention system incorporating controlled discharge to an approved stormwater outlet. The system will be designed to limit peak discharge from Lot 1 to no greater than the equivalent discharge from a site complying with the PER-1 impermeable surface threshold.
(c) the availability of land for disposal of effluent and stormwater on the site without adverse effects on adjoining waterbodies (including groundwater and aquifers) or on adjoining sites or downstream sites;	Sufficient space is available within Lot 1 for the proposed attenuation system and associated pipework. The site is serviced by the public wastewater network; therefore, on-site effluent disposal is not required. Stormwater will discharge to an approved outlet rather than being disposed of near adjoining properties or waterbodies.
(d) whether water sensitive design methods and use of green spaces can be used;	The proposal retains available landscaped and permeable areas and incorporates stormwater detention to manage runoff at source. These measures are considered appropriate water-sensitive design responses for a constrained urban site.

(e) any cumulative effects on total catchment impermeability;	The subdivision itself does not result in a significant increase in existing physical impermeable surfaces within Lot 1. Furthermore, attenuation of runoff to the equivalent permitted-coverage discharge rate will avoid a material increase in peak flow entering the downstream catchment.
(f) natural hazard mitigation and site constraints; and	The attenuation system will reduce peak stormwater discharge and the potential for runoff to contribute to downstream flooding. No site constraint has been identified that would prevent the proposed stormwater mitigation from being installed.
(g) extent of potential adverse effects on cultural, spiritual, heritage and/or amenity values of any affected waterbodies.	No direct discharge to a natural waterbody is proposed. Runoff will be collected, attenuated and discharged through an approved stormwater connection. The proposal is therefore not expected to adversely affect the cultural, spiritual, heritage or amenity values of any waterbody.

Overall, the proposed stormwater attenuation will appropriately mitigate the effects associated with the Lot 1 impermeable surface exceedance. Peak runoff will be controlled to an equivalent permitted-coverage condition, and no material increase in flooding or adverse effects on adjoining properties or the downstream catchment is anticipated.

7 POTABLE WATER

The existing dwelling within proposed Lot 1 is serviced by an existing water connection and meter supplied from a public 40mmØ rider main located within the southern berm of the Kerikeri Road reserve. A public 150mmØ water main is also located within the Kerikeri Road reserve on the opposite side of the road to the subject site.

It is recommended that the existing water connection and meter be retained to service the dwelling within Lot 1. Proposed Lot 2 should be provided with a new connection from the existing 40mmØ rider main. A separate water meter should be installed adjacent to the existing meter, with the private water supply line extending to the rear lot through the proposed access corridor.

Connecting to the 40mmØ rider main is considered preferable to connecting directly to the 150mmØ main, as it avoids the need to install a new service connection across Kerikeri Road.

The proposed connection and water meter should be installed in accordance with Sheet 46 of the FNDC Engineering Standards 2023. The existing and proposed meters should remain readily accessible and be located clear of vehicle tracking areas.

Assuming an occupancy of five people per dwelling, the estimated daily potable water demand for each lot is 1,500L, with a peak hourly demand of approximately 313L/hr or 0.09L/s. Once both lots are developed, the combined daily demand will be approximately 3,000L, with a combined peak hourly demand of approximately 625L/hr or 0.17L/s.

FNDC should confirm that the 40mmØ rider main has sufficient capacity and pressure to service the additional connection proposed for Lot 2. Final connection and meter details will be subject to FNDC approval.

8 ACCESS AND VEHICLE CROSSING

8.1 GENERAL

It is proposed that both lots be accessed from a shared Right of Way (ROW) extending from Kerikeri Road. The ROW will be located within proposed Lot 1 and will provide legal access to proposed Lot 2, generally as shown by Easement A on the provided scheme plan.

The existing vehicle crossing and driveway are not centred on the proposed ROW alignment. The crossing should therefore be relocated and upgraded to form a shared access serving both lots. This arrangement will retain a single vehicle access onto Kerikeri Road and avoid creating an additional access point.

The existing garage and sleepouts located within the proposed ROW will need to be removed to allow the accessway to be formed.

8.2 VEHICLE CROSSING

The existing vehicle crossing should be reconstructed and repositioned to align centrally with the proposed ROW. The relocated crossing should be designed as a shared residential vehicle crossing serving both lots and constructed in accordance with Sheet 18 of the Far North District Council Engineering Standards (May 2023).

The crossing should be formed to tie smoothly into the existing kerb, channel and footpath. The detailed crossing width, flare geometry, gradients, pavement construction and vehicle tracking should be confirmed during detailed design. Vehicles should be able to enter and exit the site without tracking across the road centreline or outside the crossing flares.

The existing crossing areas that are no longer required should be removed and the affected kerb, channel, footpath and berm reinstated to FNDC requirements. The design should also be coordinated with the existing and proposed water meters, wastewater boundary kit and other services within the road reserve.

Approval for the relocated crossing and all associated works within the road reserve should be obtained from FNDC before construction, including any required Corridor Access Request.

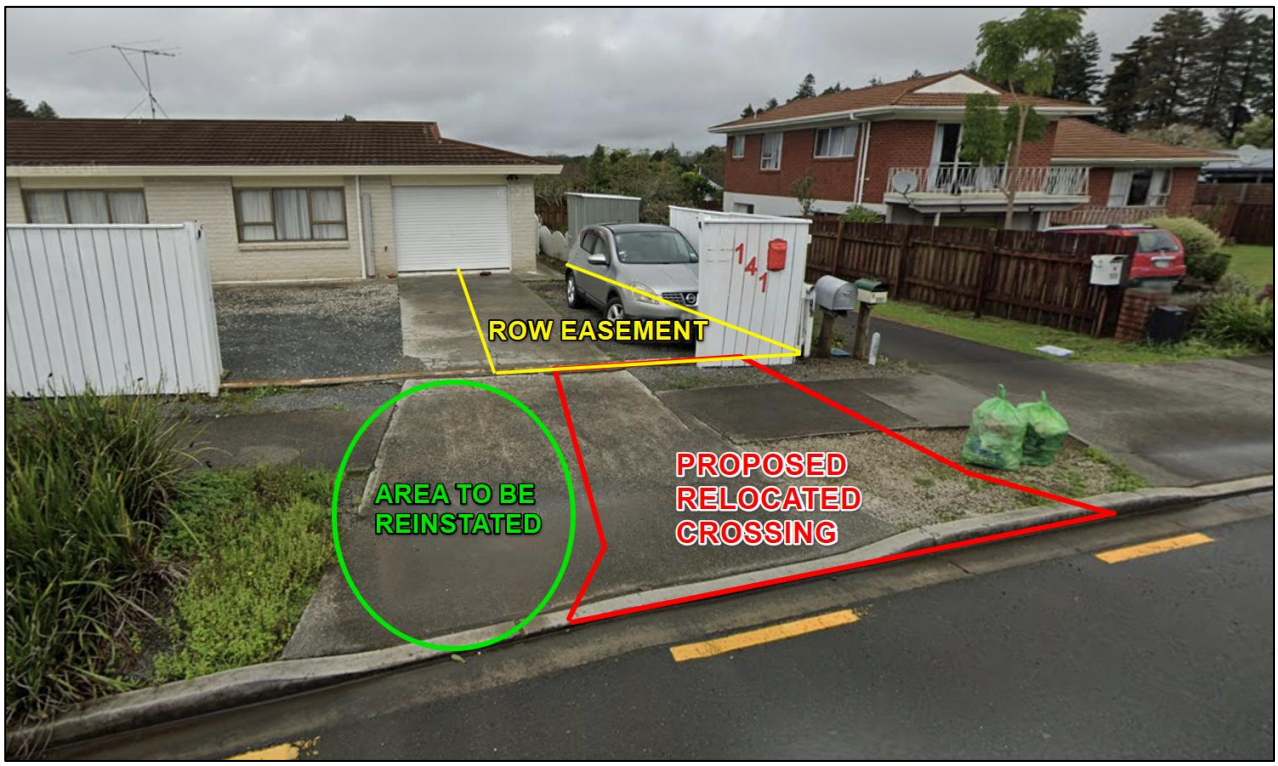


Figure 3: Google Street View – view of subject site from Kerikeri Road, facing southeast. ROW and vehicle crossing geometry shown indicatively only.

8.3 VEHICLE ACCESS

The shared ROW will serve two residential lots and should be formed in accordance with the applicable Category A private accessway requirements of Table 3-16 of the Far North District Council Engineering Standards (May 2023).

Table 3-16: Minimum Width Requirements – Private Accessways

Category	Criteria (Household Units)	Minimum Legal Width (m)	Minimum Carriageway Width (m)				Footpath Width (m)	Minimum Surfacing Requirement
			Unsealed Shoulder	Surfacing Width[17]	Total			
	Urban							
A	2 - 4	4.0	-	1 x 3.0	3.0		-	Seal or Concrete
A(Alt)[1]	2 - 4	5.0	-	1 x 4.0	4.0		-	Seal or Concrete
B	5 - 8	6.0	-	1 x 4.5	4.5		1 x 0.95	Seal or Concrete
	Rural							
C	2	4.0	2 x 0.25	1 x 3.0	3.5		-	Aggregate[18]
C(Alt) [16]	2	5.0	2 x 0.25	1 x 4.0	4.5		-	Aggregate[18]
D	3 - 5	6.0	2 x 0.25	1 x 4.0	4.5		-	Aggregate[18]
E	6 - 8	10.0	2 x 0.25	2 x 2.75	6.0		-	Seal

Figure 4: Snip of Table 3-16 from FNDC Engineering Standards.

The scheme plan provides an approximately 4.0m-wide legal ROW. A minimum sealed carriageway width of 3.0m should be provided using concrete, asphalt or another sealed surface accepted by FNDC. The accessway should incorporate suitable crossfall, longitudinal gradients and transitions to provide safe all-weather access without vehicle grounding.

The proposed access length and low number of lots served mean that a passing bay is not considered necessary. Adequate manoeuvring should be provided within each lot so that vehicles can enter and exit the shared access safely.

Stormwater runoff generated by the accessway should be collected and discharged to the approved site stormwater system. The access should be graded so that runoff and debris are not discharged onto Kerikeri Road or adjoining properties.

Final access levels and pavement construction should be confirmed during detailed design.

8.4 SIGHT DISTANCES

Kerikeri Road has a posted speed limit of 50km/hr. Sheet 4 of the Far North District Council Engineering Standards identifies a minimum sight distance of 70m for a vehicle crossing onto a primary or secondary collector road with a 50km/hr speed limit.

Sight distance exceeding 70m is available from the proposed shared crossing in the south-western direction and satisfies the applicable minimum requirement.

In the north-eastern direction, the available sight distance extends approximately 40m to the nearby roundabout. While this is less than the standard 70m sight-distance requirement, all vehicles approaching the site from this direction will have just negotiated the roundabout and will therefore be travelling at a substantially lower operating speed than the posted 50km/hr limit.

The roundabout provides a permanent physical speed-control feature, and the available sight distance is considered suitable for the reduced vehicle speeds expected at this location. The subdivision will result in only one additional residential lot, and the shared crossing arrangement avoids introducing a second vehicle access onto Kerikeri Road.

On this basis, the relocated shared crossing is considered acceptable from a sight-distance perspective. The available sight lines should be maintained clear of vegetation, structures and other obstructions. Final acceptance of the crossing location and the reduced north-eastern sight distance will remain subject to FNDC approval.



Figure 5: Screenshot from FNDC GIS maps showing 70m clear sight distance from crossing location along northeast-bound lane of Kerikeri Road.



Figure 6: Google Street View - view of new crossing location and northeast-bound lane of Kerikeri Road from Kerikeri Road, facing southwest.



Figure 7: Screenshot from FNDC GIS maps showing 40m clear sight distance from crossing location to the roundabout north of the site.



Figure 8: Google Street View - view of new crossing location and southwest-bound lane of Kerikeri Road from Kerikeri Road, facing northeast.

9 LIMITATIONS

We anticipate that this report is to be submitted to Council in support of a Resource Consent application.

This report has been commissioned solely for the benefit of our client in relation to the project as 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 as described herein as forming the basis of our appraisal should be referred back to us for further evaluation. Copyright of Intellectual Property remains with Wilton Joubert Limited, 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 civil 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.

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 – C001 (1 sheet)
- Detention Tank Detail – C250 (1 sheet)
- Stormwater Calculation Set (13 sheets)

NOTES:

1. 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.

3,000L DETENTION TANK FOR LOT 1 PROVIDING ATTENUATION TO PERMITTED COVERAGE FLOW RATES. LOCATION INDICATIVE. ALL LOT 1 EXISTING ROOF AREA DOWNPIPES TO BE REROUTED TO DETENTION TANK

01
C250

125°33' (40.74)

19.3m

EXISTING 300mmØ PUBLIC STORMWATER LINE. NEW CONNECTION ESTABLISHED TO SERVICE LOT 2. EXISTING CONNECTION TO LOT 1 TO BE RETAINED IF CONFIRMED IN ADEQUATE CONDITION, OTHERWISE NEW CONNECTION ALSO ESTABLISHED TO SERVICE LOT 1.

2.0m 2.0m

KERB AND CHANNEL

FOOTPATH

KERB AND CHANNEL

GARDEN

37°50' (22.00)

18.0m

EXISTING CONCRETE

EXISTING DWELLING

LOT 1
475m²

LOT 2
407m²

17.7m

FENCE

38°27' 21.50

EXISTING WATER METER & CONNECTION TO CONTINUE TO SERVICE LOT 1

EXISTING GRAVEL

EXISTING PUMP CHAMBER TO BE RELOCATED TO WITHIN EXTENT OF LOT 1 AND CONTINUE TO SERVICE LOT 1

NEW LPS CONNECTION & BOUNDARY KIT TO SERVICE LOT 1

NEW WATER CONNECTION AND WATER METER TO SERVICE LOT 2

EXISTING VEHICLE CROSSING TO BE REPLACED WITH NEW VEHICLE CROSSING ALIGNED WITH NEW ROW FORMATION IN ACCORDANCE WITH FNDC ES SHEET 18.

4.0m

ROW EASEMENT

4000

3000

MIN 3.0m WIDE SEAL/CONCRETE

A

4.0m

22.1m

18.5m

124°52' (40.53)

B

CAP EXISTING RISING MAIN. MAY BE UTILISED FOR FUTURE DEVELOPMENT ON LOT 2

EXIST LPS MAIN

EXIST 40mmØ WATER MAIN

WILTON JOUBERT
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Wanaka: 03 443 6209
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ISSUE / REVISION

No.	DATE	BY	DESCRIPTION
A	OCT '26	PM	CIVIL SITE SUITABILITY ASSESSMENT

DESIGNED BY: PM
DRAWN BY: PM
CHECKED BY: BGS
SURVEYED BY: OTHER

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.

RESOURCE CONSENT

DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE: **SITE PLAN**

PROJECT DESCRIPTION: **CIVIL SITE SUITABILITY ASSESSMENT**

PROJECT TITLE: **LOT 10 DP 79582
141 KERIKERI ROAD
KERIKERI**

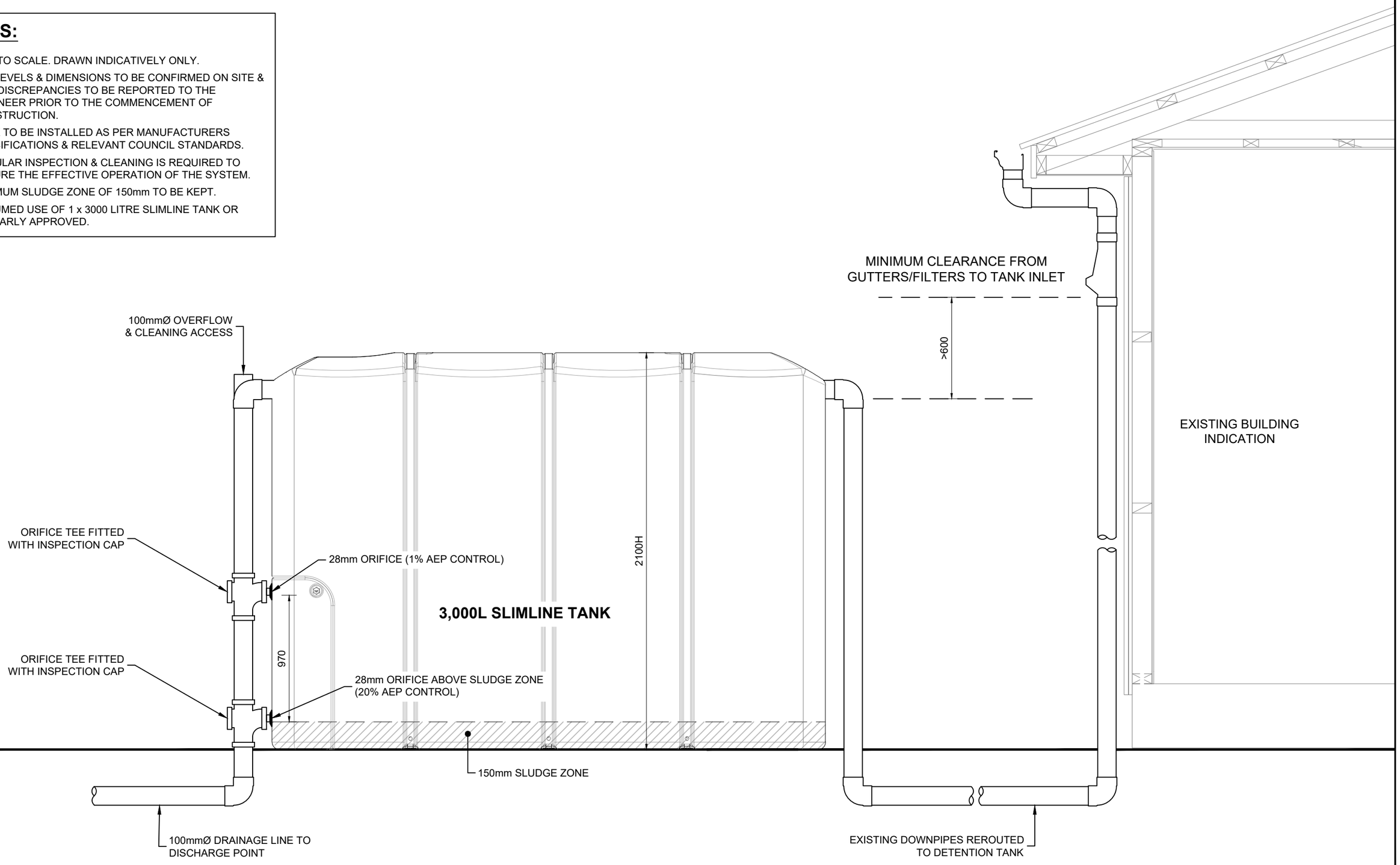
ORIGINAL DRAWING SIZE:	OFFICE:
A3	OREWA
DRAWING SCALE: 1:150	CO-ORDINATE SYSTEM:

DRAWING NUMBER: **150100-C001**
ISSUE: **A**

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NOTES:

1. NOT TO SCALE. DRAWN INDICATIVELY ONLY.
2. ALL LEVELS & DIMENSIONS TO BE CONFIRMED ON SITE & ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
3. TANK TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS & RELEVANT COUNCIL STANDARDS.
4. REGULAR INSPECTION & CLEANING IS REQUIRED TO ENSURE THE EFFECTIVE OPERATION OF THE SYSTEM.
5. MINIMUM SLUDGE ZONE OF 150mm TO BE KEPT.
6. ASSUMED USE OF 1 x 3000 LITRE SLIMLINE TANK OR SIMILARLY APPROVED.



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	OCT '26	PM	CIVIL SITE SUITABILITY ASSESSMENT

DESIGNED BY: PM
DRAWN BY: PM
CHECKED BY: BGS
SURVEYED BY: OTHER

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RESOURCE CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

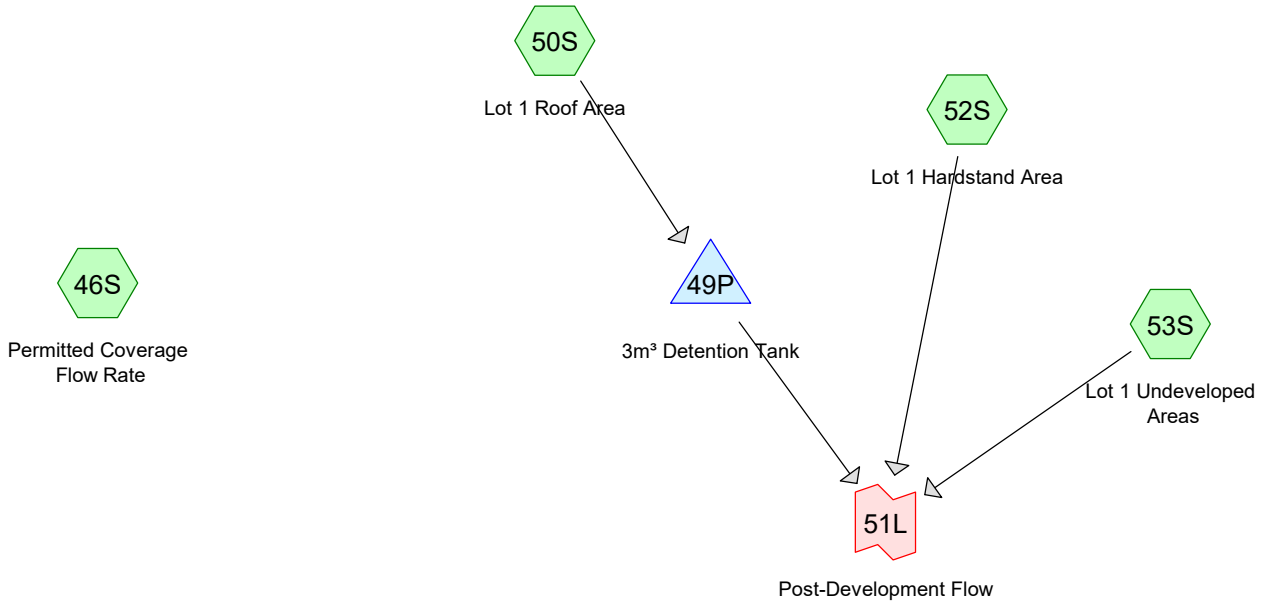
DRAWING TITLE: **DETENTION TANK DETAIL**

PROJECT DESCRIPTION: **CIVIL SITE SUITABILITY ASSESSMENT**

PROJECT TITLE: **LOT 10 DP 79582 141 KERIKERI ROAD KERIKERI**

ORIGINAL DRAWING SIZE: A3
OFFICE: **OREWA**
DRAWING SCALE: **N.T.S**
CO-ORDINATE SYSTEM:
DRAWING NUMBER: **150100-C250**
ISSUE: **A**

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Subcat Reach Pond Link

Routing Diagram for 150100

Prepared by CGW Consulting Engineers, Printed 30/10/2026

HydroCAD® 10.20-9a s/n 13178 © 2026 HydroCAD Software Solutions LLC

Summary for Subcatchment 46S: Permitted Coverage Flow Rate

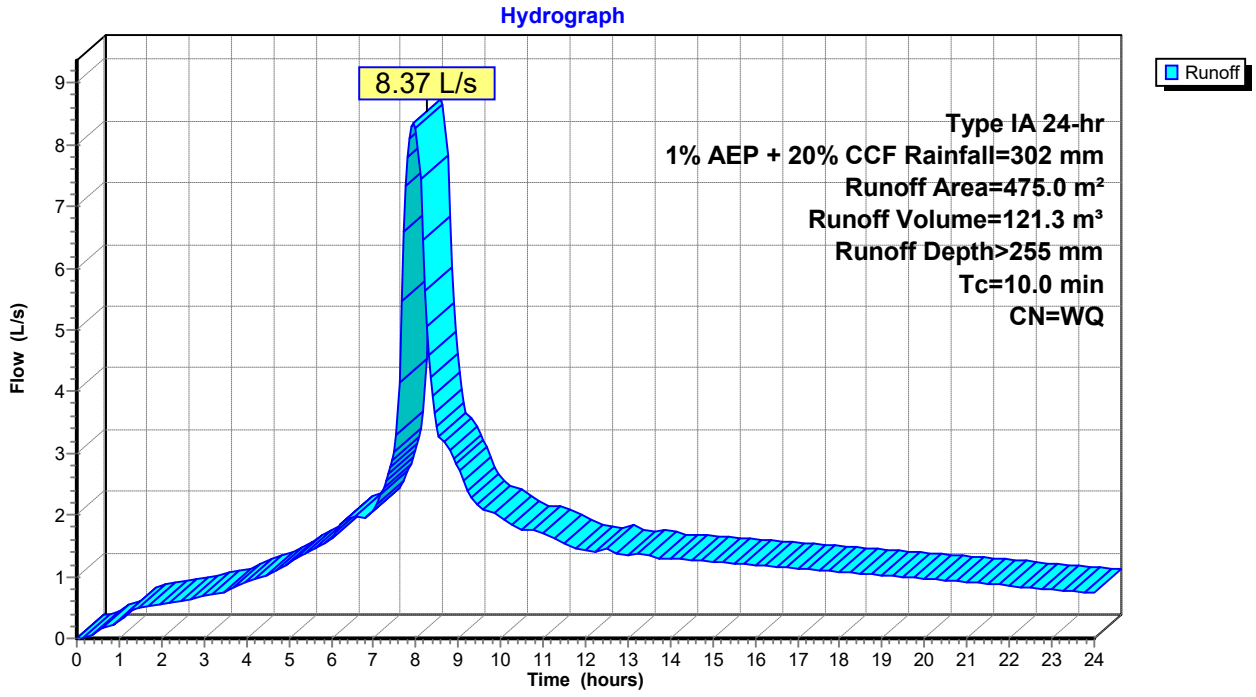
Runoff = 8.37 L/s @ 7.96 hrs, Volume= 121.3 m³, Depth> 255 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=302 mm

	Area (m²)	CN	Description
*	237.5	98	
*	237.5	74	
	475.0		Weighted Average
	237.5		50.00% Pervious Area
	237.5		50.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 46S: Permitted Coverage Flow Rate



Summary for Subcatchment 50S: Lot 1 Roof Area

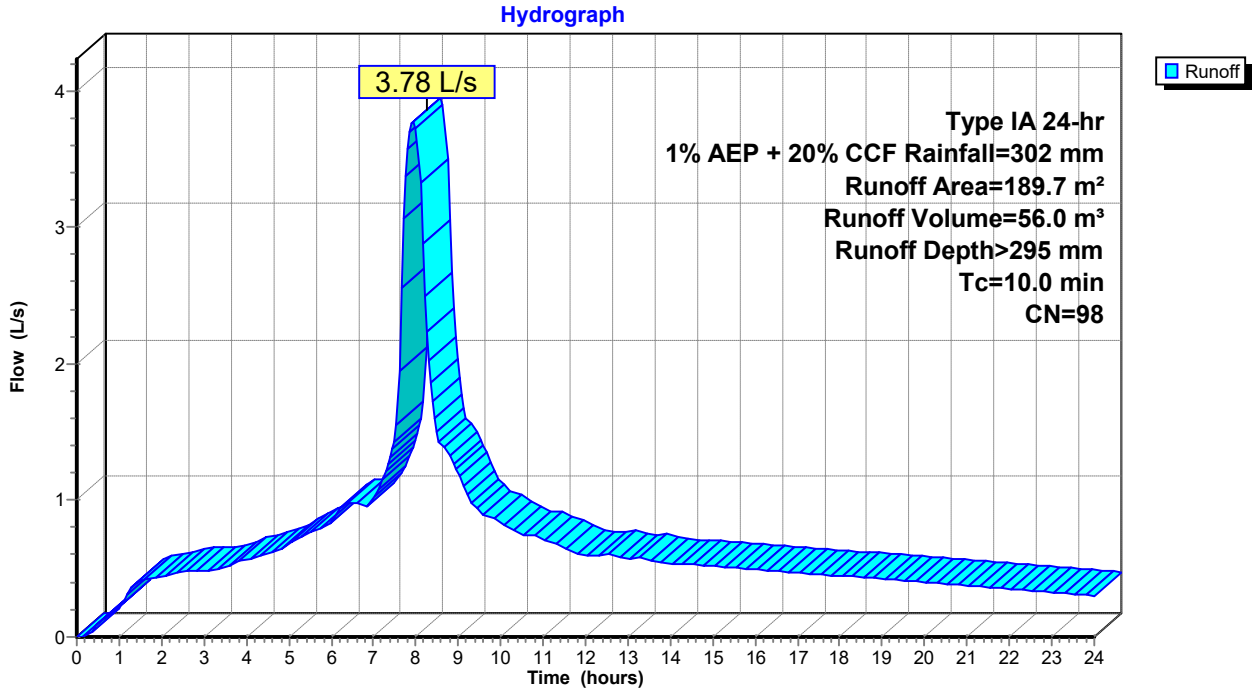
Runoff = 3.78 L/s @ 7.94 hrs, Volume= 56.0 m³, Depth> 295 mm
Routed to Pond 49P : 3m³ Detention Tank

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=302 mm

	Area (m²)	CN	Description
*	189.7	98	
	189.7		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 50S: Lot 1 Roof Area



Summary for Subcatchment 52S: Lot 1 Hardstand Area

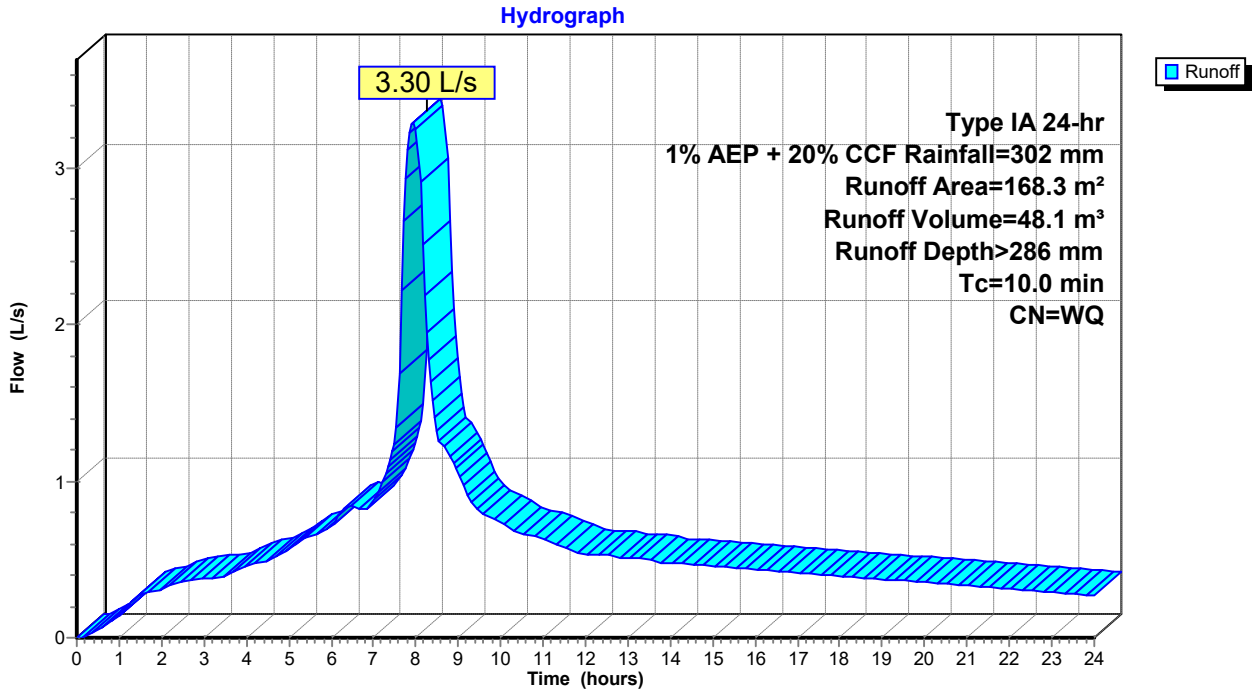
Runoff = 3.30 L/s @ 7.94 hrs, Volume= 48.1 m³, Depth> 286 mm
Routed to Link 51L : Post-Development Flow

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=302 mm

	Area (m²)	CN	Description
*	48.0	98	Concrete
*	66.0	98	ROW
*	54.3	89	Gravel
	168.3		Weighted Average
	54.3		32.26% Pervious Area
	114.0		67.74% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 52S: Lot 1 Hardstand Area



Summary for Subcatchment 53S: Lot 1 Undeveloped Areas

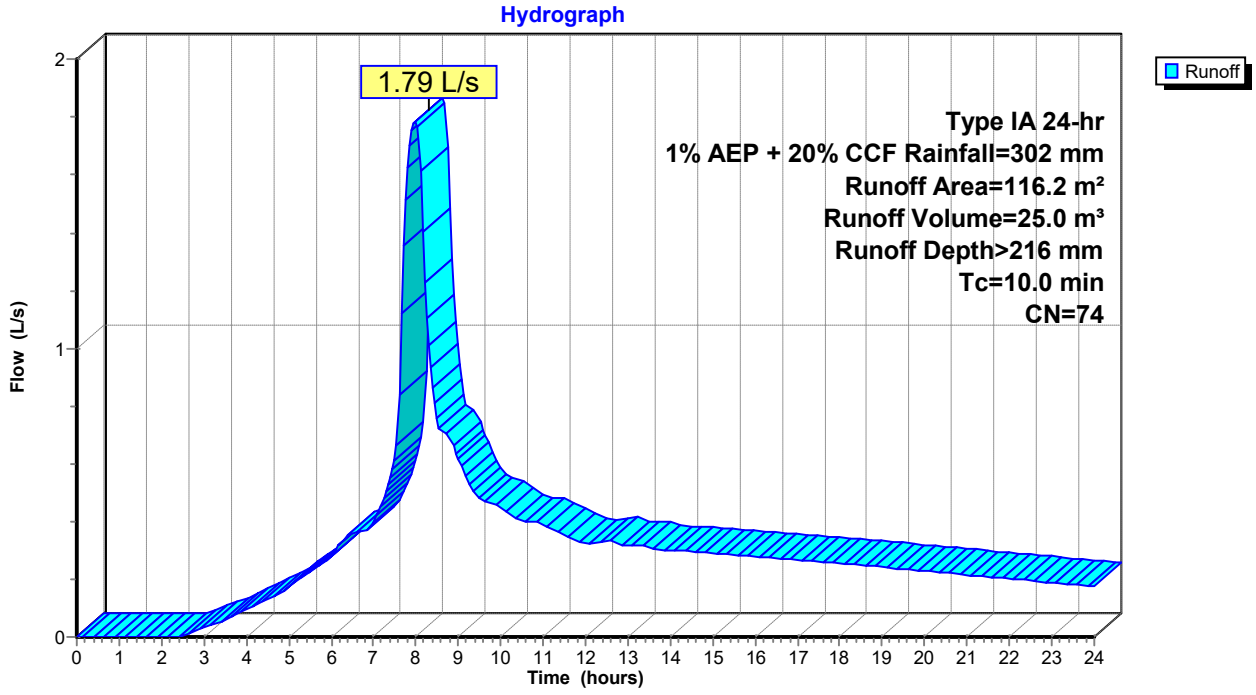
Runoff = 1.79 L/s @ 7.98 hrs, Volume= 25.0 m³, Depth> 216 mm
Routed to Link 51L : Post-Development Flow

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 1% AEP + 20% CCF Rainfall=302 mm

	Area (m²)	CN	Description
*	116.2	74	
	116.2		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 53S: Lot 1 Undeveloped Areas



Summary for Pond 49P: 3m³ Detention Tank

Inflow Area = 189.7 m²,100.00% Impervious, Inflow Depth > 295 mm for 1% AEP + 20% CCF event
Inflow = 3.78 L/s @ 7.94 hrs, Volume= 56.0 m³
Outflow = 3.35 L/s @ 8.09 hrs, Volume= 55.9 m³, Atten= 11%, Lag= 9.4 min
Primary = 3.35 L/s @ 8.09 hrs, Volume= 55.9 m³
Routed to Link 51L : Post-Development Flow

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 1.604 m @ 8.09 hrs Storage= 2.5 m³

Plug-Flow detention time= 8.3 min calculated for 55.9 m³ (100% of inflow)
Center-of-Mass det. time= 7.2 min (651.4 - 644.1)

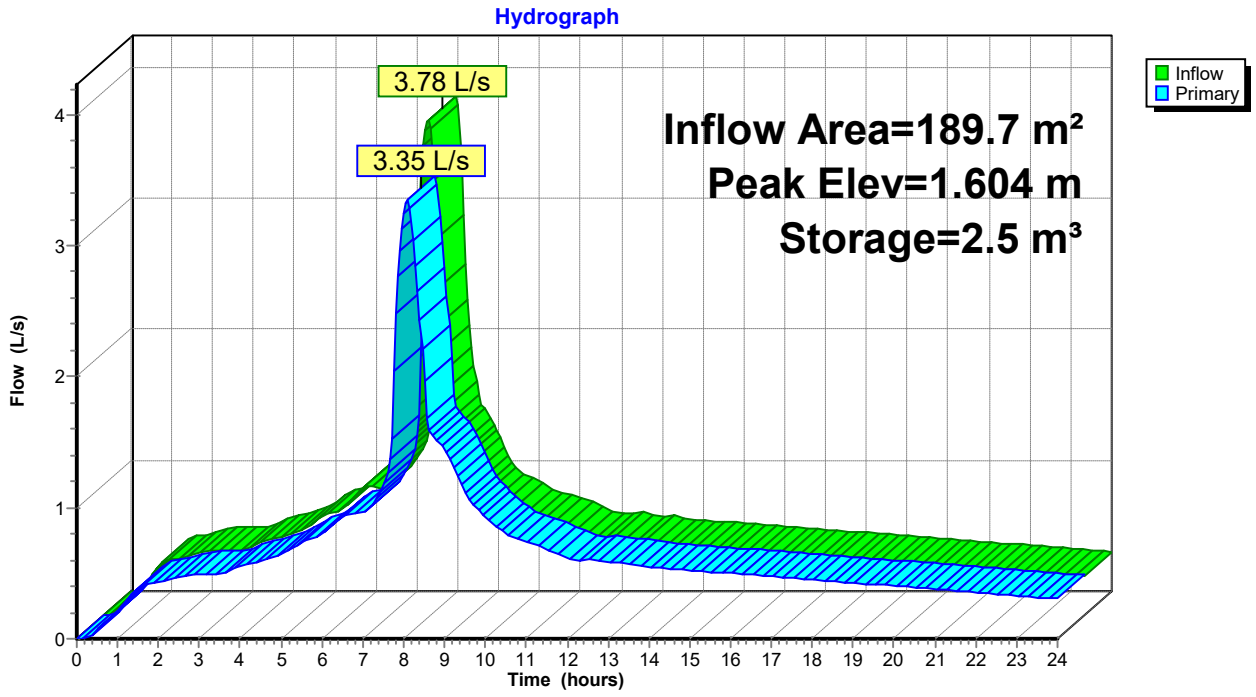
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	3.0 m³	**Custom Stage Data** Listed below

Elevation (meters)	Cum.Store (cubic-meters)
0.000	0.0
1.900	3.0

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	**28 mm Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	0.970 m	**28 mm Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.35 L/s @ 8.09 hrs HW=1.601 m (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 2.06 L/s @ 3.35 m/s)
└**2=Orifice/Grate** (Orifice Controls 1.29 L/s @ 2.09 m/s)

Pond 49P: 3m³ Detention Tank

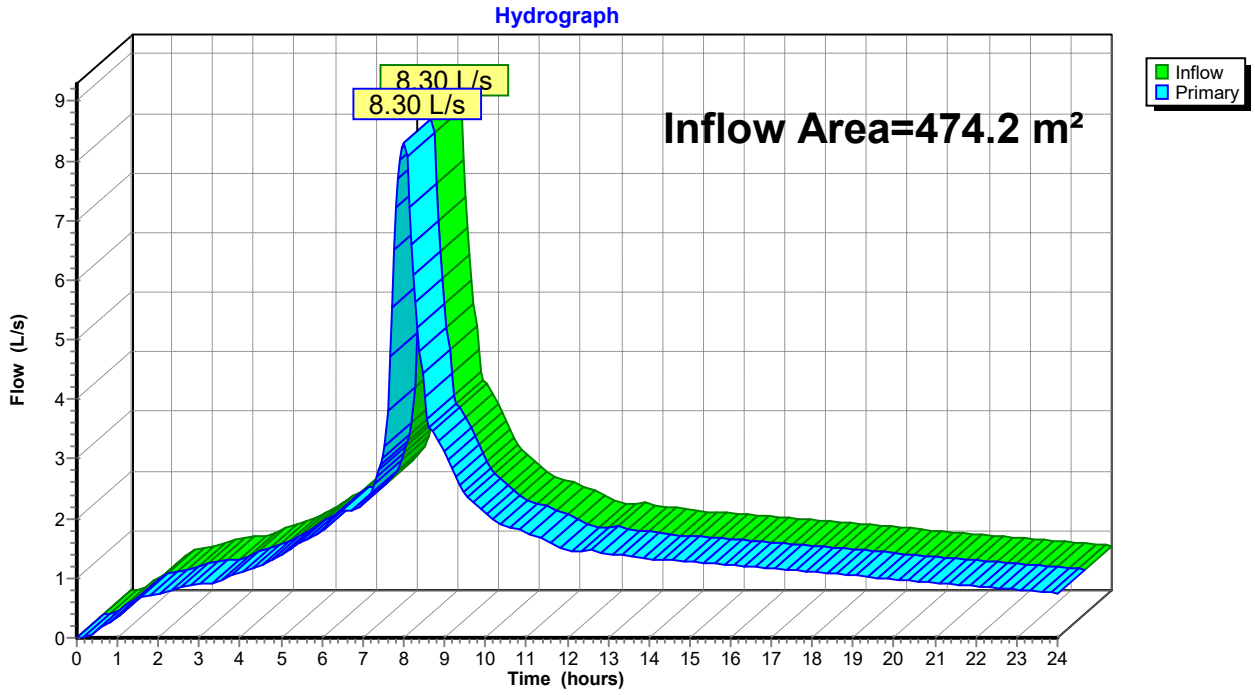


Summary for Link 51L: Post-Development Flow

Inflow Area = 474.2 m², 64.04% Impervious, Inflow Depth > 272 mm for 1% AEP + 20% CCF event
Inflow = 8.30 L/s @ 8.01 hrs, Volume= 129.1 m³
Primary = 8.30 L/s @ 8.01 hrs, Volume= 129.1 m³, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 51L: Post-Development Flow



Summary for Subcatchment 46S: Permitted Coverage Flow Rate

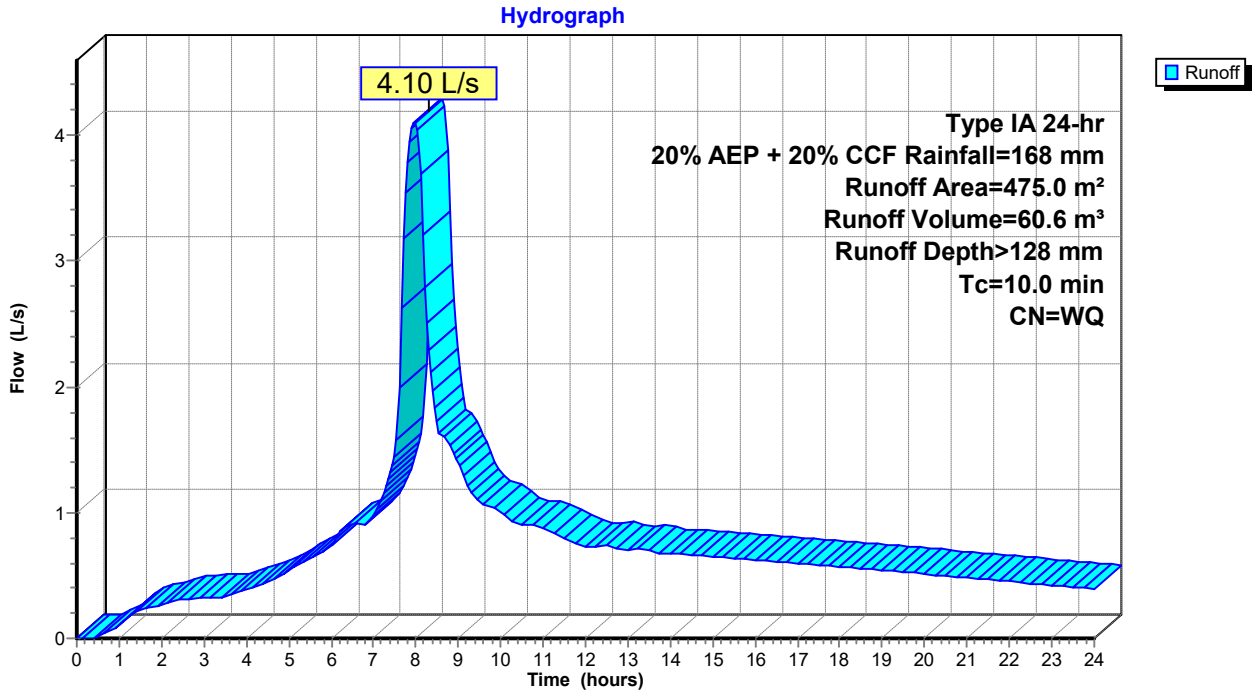
Runoff = 4.10 L/s @ 7.97 hrs, Volume= 60.6 m³, Depth> 128 mm

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 20% AEP + 20% CCF Rainfall=168 mm

	Area (m²)	CN	Description
*	237.5	98	
*	237.5	74	
	475.0		Weighted Average
	237.5		50.00% Pervious Area
	237.5		50.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 46S: Permitted Coverage Flow Rate



Summary for Subcatchment 50S: Lot 1 Roof Area

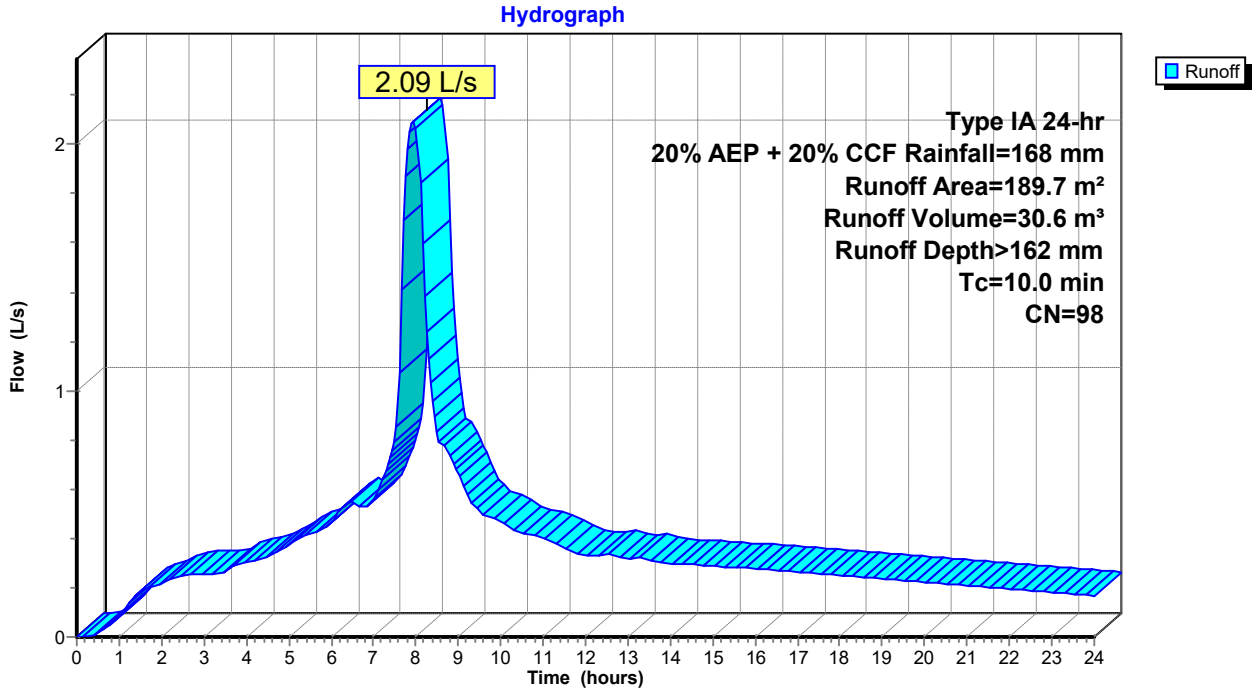
Runoff = 2.09 L/s @ 7.94 hrs, Volume= 30.6 m³, Depth> 162 mm
Routed to Pond 49P : 3m³ Detention Tank

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 20% AEP + 20% CCF Rainfall=168 mm

	Area (m²)	CN	Description
*	189.7	98	
	189.7		100.00% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 50S: Lot 1 Roof Area



Summary for Subcatchment 52S: Lot 1 Hardstand Area

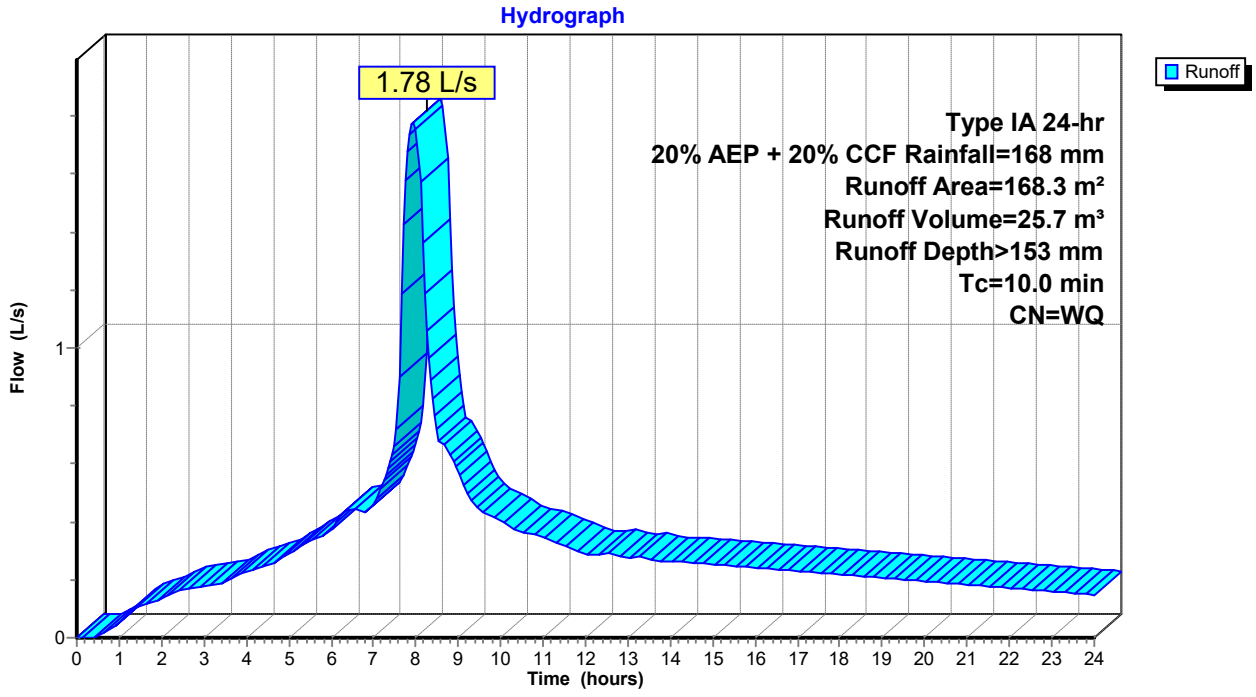
Runoff = 1.78 L/s @ 7.95 hrs, Volume= 25.7 m³, Depth> 153 mm
Routed to Link 51L : Post-Development Flow

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 20% AEP + 20% CCF Rainfall=168 mm

	Area (m²)	CN	Description
*	48.0	98	Concrete
*	66.0	98	ROW
*	54.3	89	Gravel
	168.3		Weighted Average
	54.3		32.26% Pervious Area
	114.0		67.74% Impervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 52S: Lot 1 Hardstand Area



Summary for Subcatchment 53S: Lot 1 Undeveloped Areas

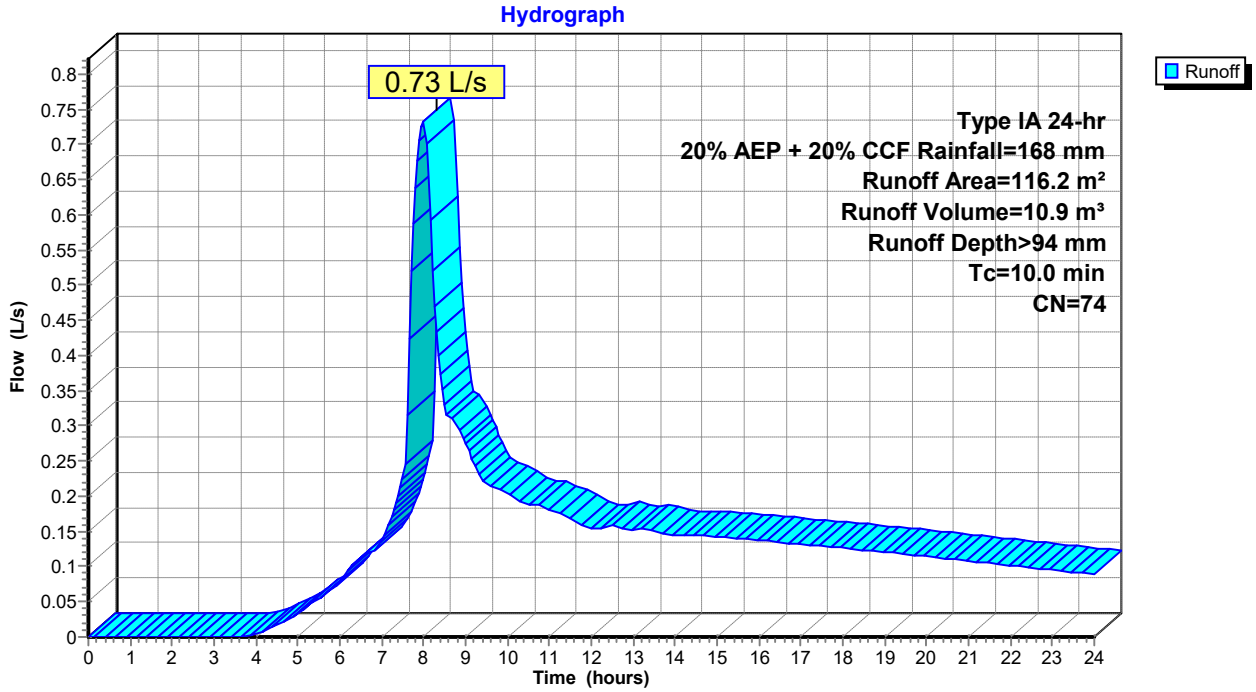
Runoff = 0.73 L/s @ 8.00 hrs, Volume= 10.9 m³, Depth> 94 mm
Routed to Link 51L : Post-Development Flow

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 20% AEP + 20% CCF Rainfall=168 mm

	Area (m²)	CN	Description
*	116.2	74	
	116.2		100.00% Pervious Area

Tc (min)	Length (meters)	Slope (m/m)	Velocity (m/sec)	Capacity (m³/s)	Description
10.0					**Direct Entry,**

Subcatchment 53S: Lot 1 Undeveloped Areas



Summary for Pond 49P: 3m³ Detention Tank

Inflow Area = 189.7 m²,100.00% Impervious, Inflow Depth > 162 mm for 20% AEP + 20% CCF even
Inflow = 2.09 L/s @ 7.94 hrs, Volume= 30.6 m³
Outflow = 1.60 L/s @ 8.15 hrs, Volume= 30.6 m³, Atten= 23%, Lag= 12.8 min
Primary = 1.60 L/s @ 8.15 hrs, Volume= 30.6 m³
Routed to Link 51L : Post-Development Flow

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 0.970 m @ 8.15 hrs Storage= 1.5 m³

Plug-Flow detention time= 6.5 min calculated for 30.6 m³ (100% of inflow)
Center-of-Mass det. time= 5.4 min (657.1 - 651.6)

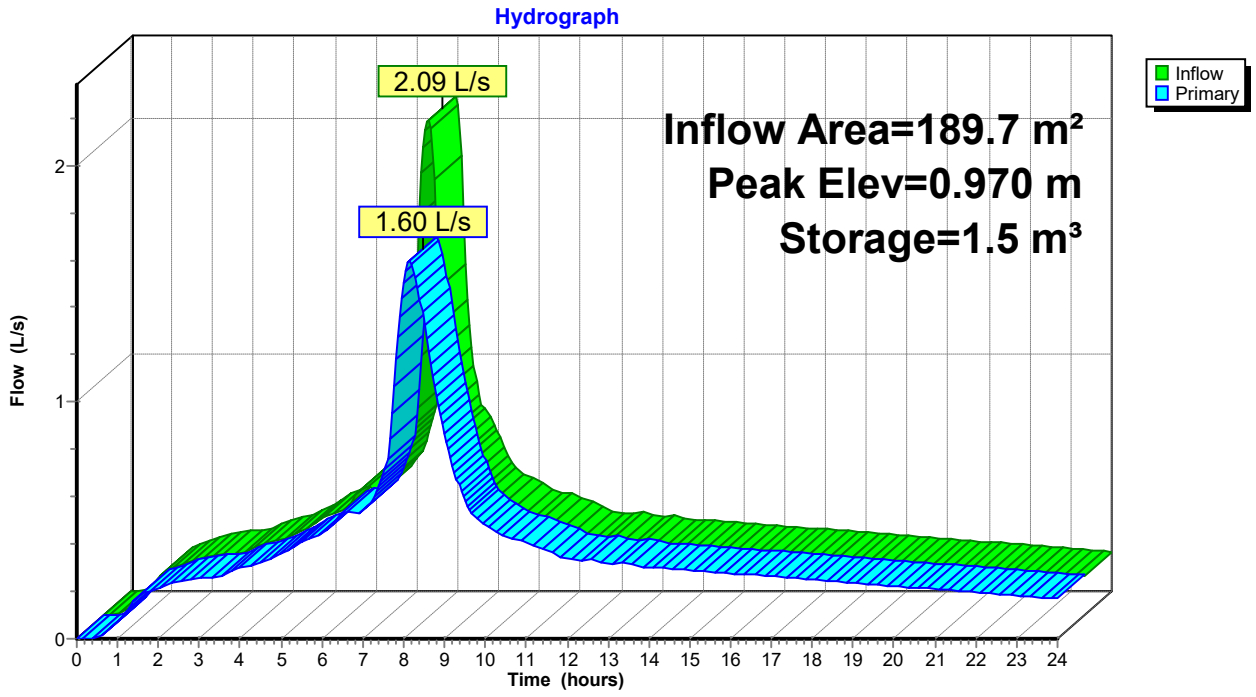
Volume	Invert	Avail.Storage	Storage Description
#1	0.000 m	3.0 m³	**Custom Stage Data** Listed below

Elevation (meters)	Cum.Store (cubic-meters)
0.000	0.0
1.900	3.0

Device	Routing	Invert	Outlet Devices
#1	Primary	0.000 m	**28 mm Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	0.970 m	**28 mm Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.60 L/s @ 8.15 hrs HW=0.970 m (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 1.60 L/s @ 2.60 m/s)
└**2=Orifice/Grate** (Controls 0.00 L/s)

Pond 49P: 3m³ Detention Tank

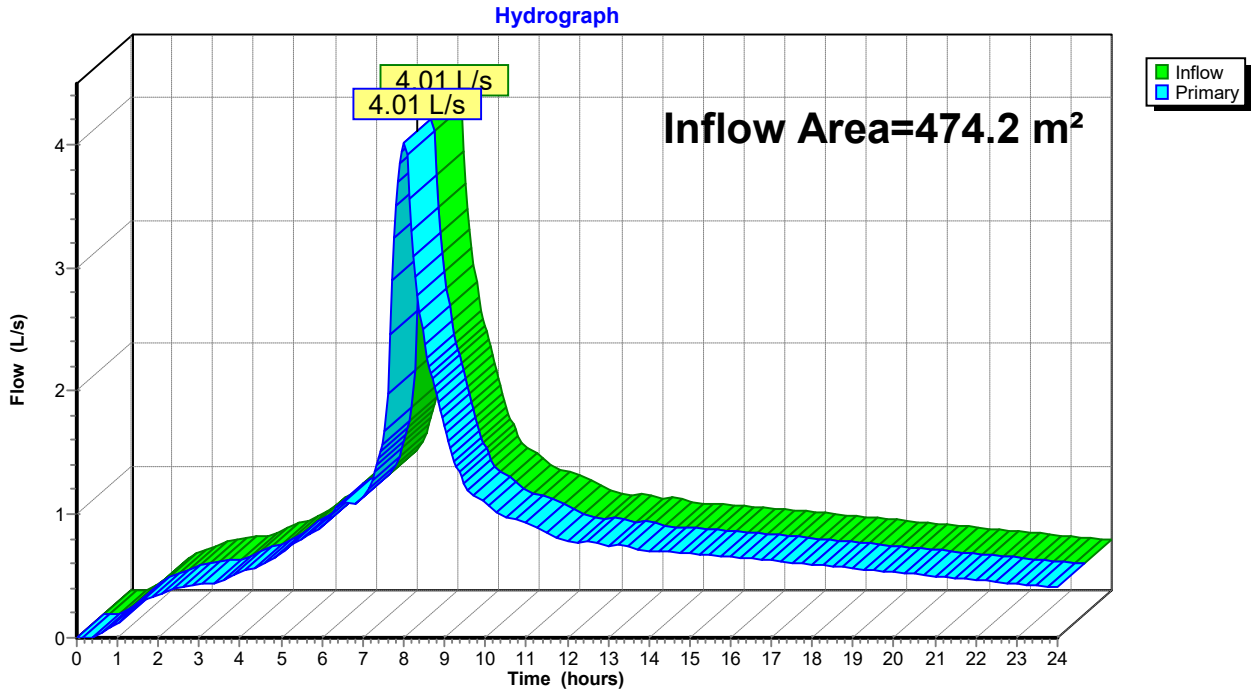


Summary for Link 51L: Post-Development Flow

Inflow Area = 474.2 m², 64.04% Impervious, Inflow Depth > 142 mm for 20% AEP + 20% CCF even
Inflow = 4.01 L/s @ 8.02 hrs, Volume= 67.2 m³
Primary = 4.01 L/s @ 8.02 hrs, Volume= 67.2 m³, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 51L: Post-Development Flow



Wilton Joubert Limited
185 Waipapa Road
Kerikeri 0230
Tel: (09) 527 0196

SITE	**141 Kerikeri Road, Kerikeri**
LEGAL DESCRIPTION	**Lot 10 DP 79582**
PROJECT	**2-Lot Subdivision (Assessment for Proposed Lot 2)**
CLIENT	**Colin Taylor**
REFERENCE NO.	**150099**
DOCUMENT	**Site Assessment Report**
STATUS/REVISION NO.	**Final – Issued for Building Consent**
DATE OF ISSUE	**22 October 2026**

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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:	Proposed 2-Lot Subdivision (Assessment for Lot 2).
Development Proposals Supplied:	Yes – Subdivision Scheme Plan (1 sheet).
NZS3604 Type Structure(s):	Yes - Assumed to be.
Geology Encountered:	Kerikeri Volcanic Group.
Topsoil Encountered:	Yes - Surficial layers of 0.40m thickness.
Overall Site Gradient in Proximity to Development:	Near level to gently sloping.
Site Stability Risk:	Low Risk of instability at the site.
Liquefaction Risk:	Negligible risk of liquefaction susceptibility.
Suitable Foundation Type(s):	Shallow foundations are suitable to support future residential construction at proposed Lot 2.
Shallow Soil Bearing Capacity:	Yes – Natural Soils and Engineered Hardfill only. Geotechnical Ultimate Bearing Capacity = 300kPa.
Minimum Footing Depth:	0.60m 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.
Bridging Piles & Underground Services:	If required, bridging piles design parameters will be given during the development review phase once the depth of the underground wastewater and stormwater service lines present beneath the southeastern portion of the site have been confirmed.
Earthworks:	A nominal engineered cut-fill earthworks operation will be required to form a level building platform for concrete floor slab construction at proposed Lot 2.
Consent Application Report Suitable for:	Resource Consent. Finalised future development proposals require Geotechnical review during the Building Consent stage.
National Policy Statement:	Refer to Section 8.4 for Risk Matrix Assessment Table.

2. INTRODUCTION

2.1. SCOPE OF WORK

Wilton Joubert Limited (WJL) was engaged by **Colin Taylor** (the Client) to undertake a geotechnical assessment of the above site, where we understand, it is proposed to subdivide the existing property into two individual allotments.

The primary objective of this report is to provide geotechnical assessments along with preliminary design recommendations pertaining to future residential development within proposed Lot 2.

It is our understanding that this report will be submitted to support a Resource Consent application for the proposed subdivision development.

2.2. SUPPLIED INFORMATION

Our assessment is based on the following development proposals supplied:

- Subdivision Scheme Plan (1 sheet), dated September 2026 (Ref: 24912), prepared by Williams & King.

Any revision of the Subdivision Scheme Plan supplied with geotechnical implications should be referred to us for review.

3. SITE DESCRIPTION

The proposed development will be constructed within the following property (the site) which is located off the southeastern side of Kerikeri Road, accessed 40m southwest of the Heritage Bypass intersection:

- 141 Kerikeri Road, Kerikeri, legally described as Lot 10 DP 79582.

The site is shown on our appended Site Plan (Drawing No. 150099-G600) and in Figure 1 below.

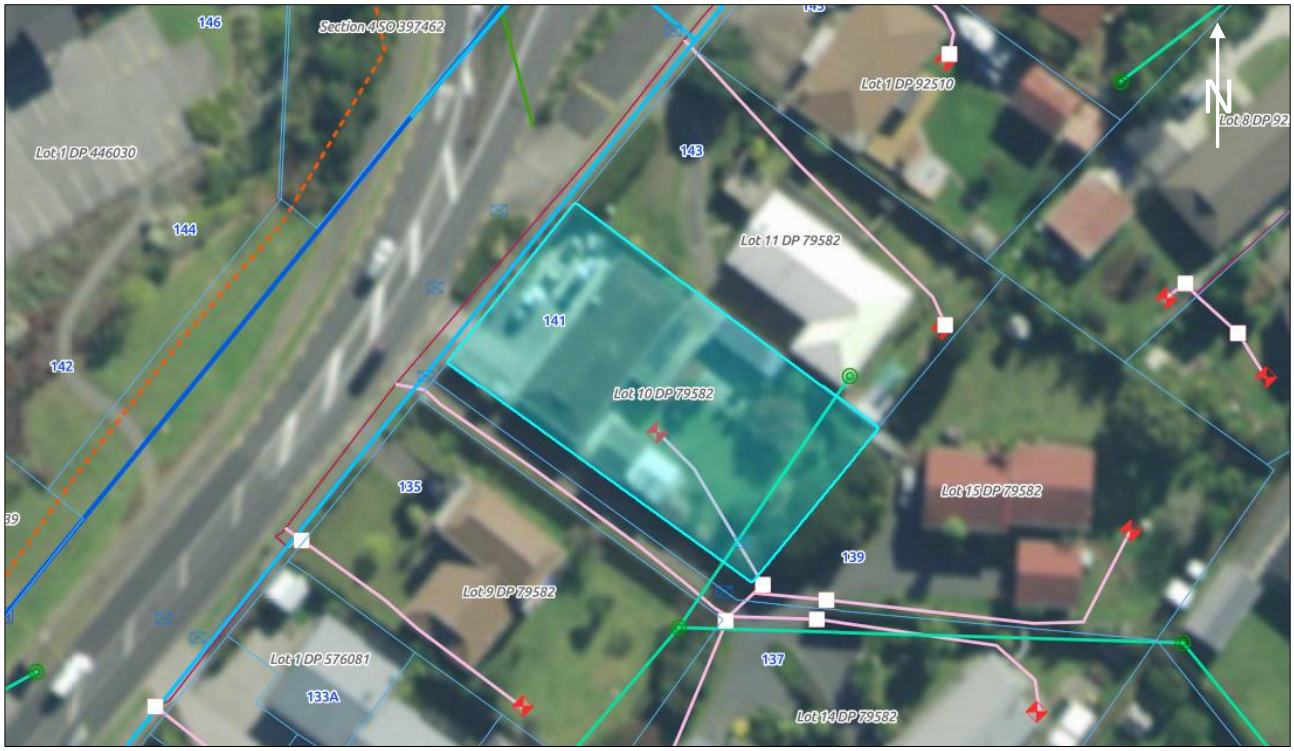


Figure 1: Aerial view with the subject property highlighted in cyan (from Far North District Council's online GIS database).

The surface area of the rectangular shaped subject site is 882m² and is accessed at the western boundary corner via an existing concrete driveway from Kerikeri Road. Existing built development is generally confined to the northwestern portion of the site and comprises an existing dwelling with attached garage, two sleepouts, gravel and concrete parking areas along the road frontage and concrete patio areas. The southeastern portion is generally covered in lawn, gardens and small trees and bushes along the perimeter.

Topographically speaking, the site is situated on broad volcanic plateau and is near level to gently sloping, falling to the southeast at inclinations averaging less than 3°.

The Far North District Council (FNDC) online GIS Water Services Map (see Figure 1) indicates that public underground stormwater and wastewater service lines are present beneath the southeastern portion of the site. The stormwater line runs parallel to the southeastern boundary, generally offset approximately 3.7m to 5.7m, whilst the wastewater line traverses from the southern boundary corner towards the middle of the site.

4. DEVELOPMENT PROPOSALS

Based on our review of the Subdivision Scheme Plan supplied, we understand that it is proposed to subdivide the existing property into two individual allotments, being Lot 1 (475m²) and Lot 2 (407m²), as depicted in Figure 2 below.

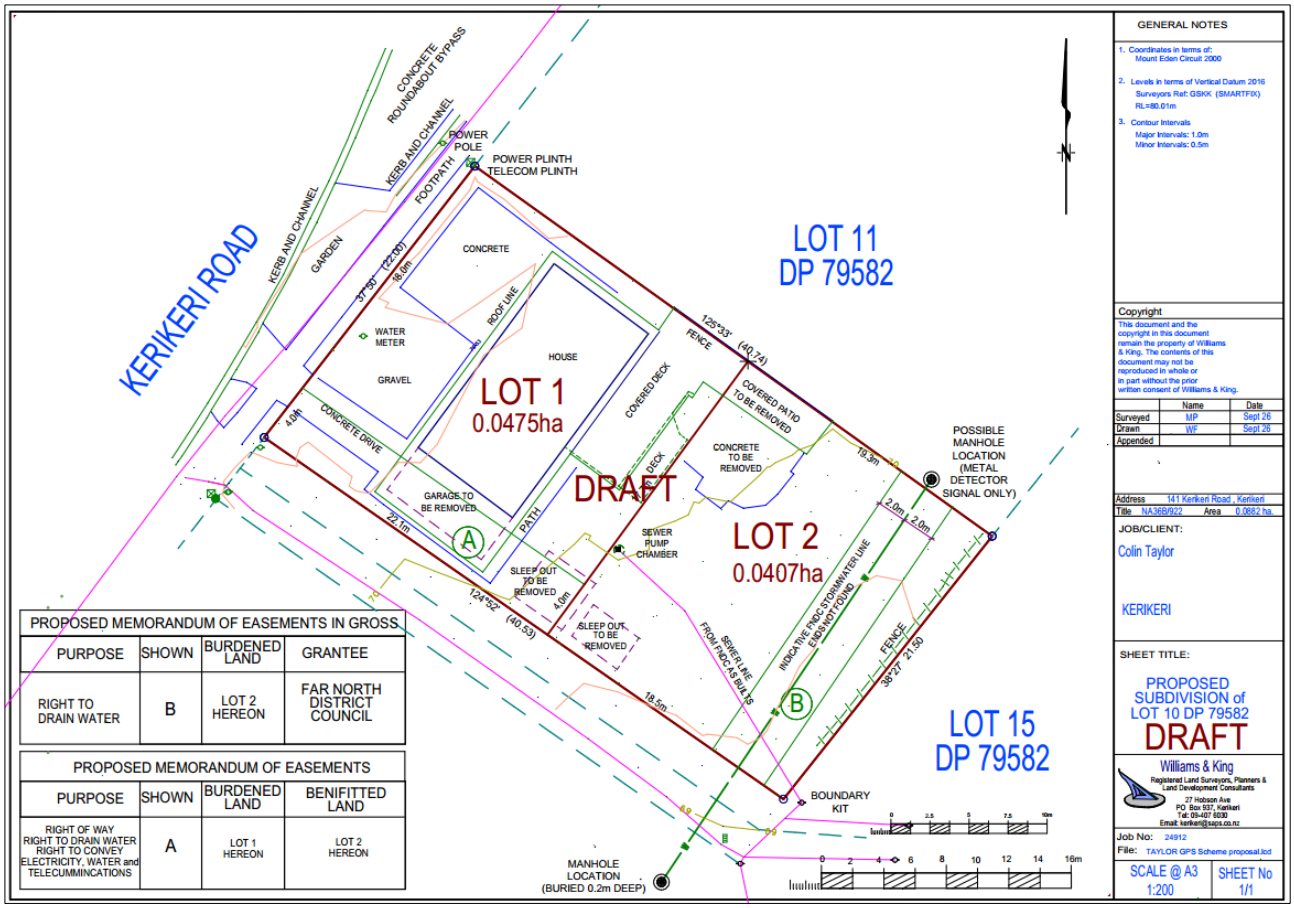


Figure 2: Subdivision Scheme Plan depicting the proposed development (from Williams & King).

We have been engaged to provide a geotechnical assessment along with preliminary design recommendations pertaining to future residential development within the Client identified designated building platform (DBP) at proposed Lot 2, as depicted on our appended Site Plan.

For the purposes of this report, we have assumed any future development at proposed Lot 2 will comprise of a lightweight structure, designed and constructed to apply loads generally in keeping with the requirements of NZS3604:2011.

Proposed Lot 1 will contain the existing residential development and is excluded from our assessments.

At this preliminary stage, we are not aware of any future earthwork proposals. A nominal engineered cut-fill earthworks operation will be required to form a level building platform for concrete floor slab construction at proposed Lot 2. The existing attached garage and two sleepouts are intended to be removed as part of the development works.

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

5. DESKTOP STUDY

5.1. PUBLISHED GEOLOGY

Reference to the New Zealand Geology Web Map hosted by GNS Science indicates that the subject site and wider surrounding land is underlain by deposits of the **Kerikeri Volcanic Group Late Miocene Basalt of Kaikohe – Bay of Islands Volcanic Field**. These deposits are approximately 9.7 to 1.8 million years in age and described as; "*Basalt lava, volcanic plugs and minor tuff*".

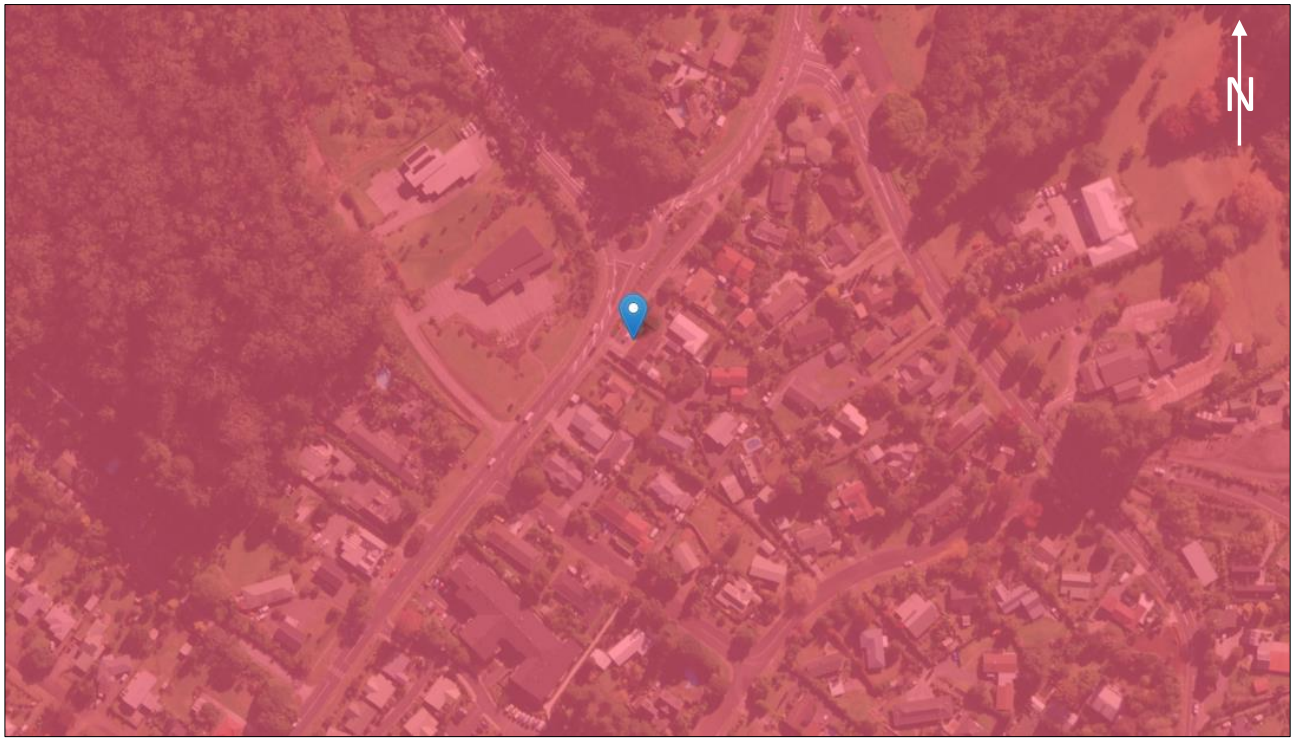


Figure 3: Screenshot from New Zealand Geology Web Map hosted by GNS Science. Blue marker depicts site location.

5.2. NATURAL HAZARDS

Reference has been made to the FNDC online GIS Hazard Maps and Engineering Standards (Version 0.6, dated: May 2023) for the following hazards on the site:

- Stability Hazard Zone, and
- Liquefaction.

The site is not identified by the FNDC or Northland Regional Council online GIS Hazard Maps as being susceptible to flooding or erosion.

5.3.1. STABILITY HAZARD ZONE

In accordance with Section 2.3.3 of the FNDC Engineering Standards, the site and wider surrounding influential land are assessed as being within a Low Stability Hazard Zones

Please refer to Sections 8.1 below for further assessment of slope stability.

5.3.2. LIQUEFACTION

The FNDC online GIS Hazards Map indicates the site and wider surrounding influential land are within an '*Unlikely*' Liquefaction Vulnerability Zone.

Please refer to Sections 8.2 and 8.3 below for further assessment of liquefaction.

6. GEOTECHNICAL INVESTIGATION

Our fieldwork, as shown on the appended Site Plan, was undertaken on 16 October 2026 and involved drilling 2 (no.) 50mm diameter hand auger boreholes (HA01 and HA02 inclusive) to refusal depths ranging between 1.6m and 1.7m below present ground level (bpgl).

7. GEOTECHNICAL FINDINGS

The soil sample arisings from the boreholes were logged generally in accordance with the *"Field Description of Soil and Rock",* New Zealand Geotechnical Society (NZGS), dated December 2005.

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 0.40m thickness were overlying both boreholes.

7.2. NATURAL GROUND

The underlying natural deposits encountered were consistent with our expectations of Kerikeri Volcanic Group soils, comprising very stiff to hard SILT with minor to trace of clay.

Measured in-situ, BS1377 adjusted peak Vane Shear Strengths within the boreholes all exceeded 197kPa, where soil strength was in excess of the shear vane capacity, or the vane could not penetrate the soil (UTP).

Subsequently, no peak to remoulded vane shear strength value ratios were able to be obtained. Based on experience, we generally assess the underlying subsoils as being 'Moderately Sensitive' subgrade.

Sensitive soil subgrades require protection from rain, wind, etc., and to avoid (or minimize) heavy construction traffic and vibrating plants.

7.3. GROUNDWATER

Groundwater was not encountered within either borehole on the day of our investigation.

7.4. SUMMARY TABLE

The following table summarises our inferred stratigraphic profiling.

Table 1: Stratigraphic Summary Table

Investigation Hole ID	Termination Depth (m)	Depth to Base of Surficial Topsoil (m)	Vane Shear Strength Range within Natural Ground (kPa)	Groundwater Depth (m)
HA01	1.7 (1)	0.40	197+ / UTP	NE
HA02	1.6 (1)	0.40	197+ / UTP	NE

Table Note: (1) Too hard to auger. NE= Not encountered.

7.5. EXPANSIVE SOILS

Naturally occurring, seasonal moisture variations are a strong characteristic of most Upper North Island soils, which typically results in plastic soil masses swelling during winter months and then shrinking during summer months. Such volumetric changes in foundation soils (broadly termed 'Expansive Soils) vary according to clay mineralogy and geology and can be a significant risk to buildings.

In this instance, without any laboratory testing, but instead adopting the visual-tactile method as per AS2870, considering the no to low plasticity of the underlying volcanic silt deposits which contained only minor to trace of clay, we have adopted the following conservative primary classification estimate of the site subsoils as follows:

- NZBC B1 Expansive Soil Class M
- Upper Limit of Characteristic surface movement (y_s) 44mm

Effects of expansive soils for the future construction will require mitigation by way of specific engineering design (SED). Preliminary foundation design recommendations are given in the appropriate Conclusion and Recommendation sections below.

8. GEOTECHNICAL ASSESSMENT

As appropriate to the site conditions, we have carried out the following geotechnical analyses:

- Qualitative slope stability, and
- Liquefaction susceptibility.

8.1. QUALITATIVE SLOPE STABILITY

Due to the near level to gently sloping nature of the site and wider surrounding influential area, land instability is not considered to be a constraint or risk to the proposed development.

8.2. LIQUEFACTION SUSCEPTIBILITY

Liquefaction is the loss of effective strength of a cohesionless soil (typically sand) due to pore-water pressures generated during a seismic event (earthquake). The partial or complete loss of effective strength of loose, saturated soils can result in vertical settlement and/or horizontal movement (lateral spreading) of the ground.

A commonly accepted definition is: 'Areas susceptible to liquefaction generally correspond with geologically young deposits (less than 10,000 years) located in relatively flat areas close to active or abandoned waterways, in coastal or estuarine areas, and/or areas of uncompacted or poorly compacted fill.' None of these characteristics apply to this site.

We have carried out liquefaction susceptibility assessments in order to identify the risk of ground damage during a seismic event, based on the following items:

- The FNDC online GIS Hazards Map categorises the site as '*Unlikely*' Liquefaction Vulnerability area.
- Very stiff to hard cohesive soils of the Kerikeri Volcanic Group encountered during our investigations.
- Groundwater was not present within either borehole on the day of our investigation.
- The site is situated on a broad volcanic plateau, set no less than approximately 69m above sea level.
- There are no known active faults traversing through or close to the site.
- Soils of the Kerikeri Volcanic Group underlie the site (minimum geological age +1.8My).

8.3. LIQUEFACTION ASSESSMENT CONCLUSION

Based on our assessment, we conclude that the soils at the site have a negligible risk of liquefaction susceptibility, and therefore liquefaction induced ground damage is consequently unlikely.

8.4. NATIONAL POLICY STATEMENT CONCLUSION

In accordance with Appendix 1 of the National Policy Statement (NPS) for Natural Hazards 2025 (December 2025), we have undertaken a natural hazard risk assessment for the proposed Lots 2 DBP using the risk matrix presented in Figure 1 of the NPS. The adopted risk matrix is shown in Figure 4 below.

Figure 1: Risk matrix

Consequence Level	Likelihood Level: Almost Certain	Very Likely	Likely	Possible	Unlikely	Rare	Very Rare
ARI (years)	up to 10	10-20	20-50	50-100	100-500	500-5000	> 5000
AEP	10% or more	10% to 5%	5% to 2%	2% to 1%	1% to 0.2%	0.2% to 0.02%	< 0.02%
Catastrophic	Very High	Very High	Very High	High	Medium	Medium	Medium
Major	Very High	Very High	High	High	Medium	Medium	Medium
Moderate	High	High	High	Medium	Medium	Low	Low
Minor	Medium	Medium	Medium	Medium	Low	Low	Low
Negligible	Low	Low	Low	Low	Low	Low	Low

Note: The top end of the likelihood range includes the top end year, that is: Likely = over 20 years and up to and including 50 years.

Figure 4: Appendix 1 Risk Matrix from the NPS for Natural Hazards 2025.

A summary of our assessment findings for the design-life of future structures within proposed Lot 2 is presented in Table 2 below:

Table 2: Risk Matrix Assessment Table

Natural Hazard	Likelihood Level	Consequence Level	Natural Hazard Risk	Explanation
Flooding	Very Rare	Negligible	Low	The site is elevated and not within a Flood Hazard Zone
Landslips	Rare	Minor	Low	Refer to Section 8.1 above
Coastal Erosion	Very Rare	Negligible	Low	The site is inland and not within a Coastal Erosion Hazard Zone
Coastal Inundation	Very Rare	Negligible	Low	The site is inland, elevated and not within a Coastal Flood Hazard Zone
Active Faults	Very Rare	Negligible	Low	As per the GNS Science Active Fault Web Map, the northernmost active fault is near Clevedon, Auckland
Liquefaction	Very Rare	Negligible	Low	Refer to Sections 8.2 and 8.3 above
Tsunami	Very Rare	Negligible	Low	The site is inland, elevated and within a Safe Area Zone

Based on the above, we consider on reasonable grounds that this report can be submitted to the Territorial Authority in support of a Resource Consent application for subdividing the subject site, substantiating that in terms of section 106 of the Resource Management Act and its current amendments, either:

a) No land in respect of which the consent is sought, nor any structure on that land, is, nor is likely to be subject to material damage by erosion, falling debris, subsidence, or slippage from any source, or

b) No subsequent use that is likely to be made of the land is likely to accelerate, worsen, or result in material damage to that land, other land, or structure, by erosion, falling debris, subsidence, or slippage from any source.

Therefore, we consider that the proposed Lot 2 DBP should generally be suitable for future residential construction in terms of NZS3604:2011, provided:

- The recommendations of this report are adhered to, and
- A Geotechnical development review of future finalised development proposals is undertaken prior to submission for a Building Consent application.

9. CONCLUSIONS AND RECOMMENDATIONS

On the basis of our assessments as described herein, we confirm that we have considered both foundation and ground stability risks, and are of the Professional Opinion that the subject development as described above should not be exposed to unsatisfactory Geotechnical Risk, subject to the following requirements:

9.1. PRELIMINARY FOUNDATION DESIGN

Shallow foundations are suitable to support future residential construction at proposed Lot 2 provided they are designed to accommodate vertical movement of soil associated with Soil Reactivity **Class M – Moderately Reactive.**

9.1.1. SHALLOW FOUNDATIONS BEARING CAPACITY

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

Table 3: Bearing Capacity Values

Parameters	Kerikeri Volcanic Group Soils & Engineered Fill
Geotechnical Ultimate Bearing Capacity	300 kPa
ULS Dependable Bearing Capacity (Φ=0.5)	150 kPa

When finalising future development proposals, it should be checked that all foundations lie outside 45° envelopes rising up from 0.5m below the invert of service trenches, unless such foundation details are found by SED to be satisfactory. If required, bridging piles design parameters will be given during the development review phase once the depth of the underground wastewater and stormwater service lines present beneath the southeastern portion of the site have been confirmed.

9.1.2. SHALLOW FOUNDATIONS ON EXPANSIVE SOILS

As described earlier in this report, we have estimated the following classification of the site subsoils:

- NZBC B1 Expansive Soil Class M
- Upper Limit of Characteristic surface movement (y_s) 44mm

Given that the soils are not considered to lie within the definition of "*Good Ground*" as per NZS3604:2011, the design of shallow foundations is no longer covered by NZS3604:2011. Care must be taken to mitigate against the potential seasonal shrinkage and swelling effects of expansive foundation soils on both superstructures and floors. We therefore recommend SED should be undertaken by a qualified engineer for the design of the proposed foundations.

A minimum 0.1m thick layer of compacted hardfill, extending a minimum 1.0m beyond the perimeter of the foundation line, should be placed beneath any proposed raft slab.

All perimeter strip and bored footings should be embedded a minimum of 0.60m below finished ground levels and 0.30m into competent natural ground, whichever is deeper.

9.2. NZS1170.5:2004 SITE SUBSOIL CLASSIFICATION

We consider proposed Lot 2 to be underlain with a Class C – Shallow Soil stratigraphy.

9.3. SITE EARTHWORKS

At this preliminary stage, we are not aware of any future earthwork proposals. A nominal engineered cut-fill earthworks operation will be required to form a level building platform for concrete floor slab construction at proposed Lot 2. The existing attached garage and two sleepouts are intended to be removed as part of the development works.

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
- The FNDC Engineering Standards (Version 0.6, dated May 2023).

9.4. SITE CLEARANCE & PREPARATION

The competency of the exposed subgrade beneath any proposed concrete floor slab and at the invert of all perimeter strip and bored footings should be confirmed by a Geo-Professional. In this regard, we recommend the stripping of all vegetation, topsoil and any non-engineered fill deposits encountered beneath any proposed concrete floor slab prior to requesting Geo-Professional inspection(s) of the stripped ground 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 - PS4 – Design Review which could result in the failure to meet Building Consent requirements as set by Council as conditions of consent.

9.5. SUBGRADE PROTECTION

The subgrade beneath any proposed concrete floor slab should not be exposed for any prolonged period but should be covered with a 0.1m thick layer of granular fill, such as GAP40 basecourse, as soon as possible.

Likewise, all perimeter strip and bored footing inverts should be poured as soon as possible once inspected by a Geo-Professional or covered with a protective layer of site concrete.

If subgrade degradation occurs by:

- Excessive drying out resulting in desiccation shrinkage cracking, it will be necessary to either re-hydrate the subgrade or undercut the degraded material and replace with compacted hardfill, or
- Excessive subgrade softening after a period of wet weather resulting in weakened soils, it will be necessary to undercut the degraded material and replace with engineered, compacted hardfill.

9.6. HARDFILL COMPACTION

Engineered compacted hardfill should be utilised for all fills beneath any proposed concrete floor slab. The compaction of the hardfill should be undertaken using either a heavy plate compactor or a steel wheeled roller with low frequency dynamic compaction. Hardfill layers should not exceed 0.15m at a time, and where the total depths exceed 0.60m, there is likely to be a Building Consent condition for observation/testing of the hardfill by a Geo-Professional. We recommend achieving the following compacted target values, with equivalence testing using either a Clegg Impact Hammer or DCP-Scala Penetrometer.

Table 4: Compaction Criteria (for granular fill only)

Foundation Support Type	CBR	Equivalent Clegg Impact Value (CIV)	Equivalent DCP-Scala Penetrometer Blows
Foundation Footings & Beams **(Over a depth of no less than twice the foundation width)**	≥ 10%	Minimum 20 Average 25	≥5 blows/100mm (NZS3604)
Floor Slabs	≥ 7%	Minimum 18 Average 20	≥3.5 blows/100mm (NZS3604)

9.7. GENERAL SITE WORKS

We stress that any and all works should be undertaken in a careful and safe manner so that Health and Safety is not compromised, and that suitable Erosion and 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.
- 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
- Foundation construction too soon after their removal can result in soil swelling and raising foundations as the soils rehydrate.

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 & SURFACE WATER 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 foundation conditions.

All stormwater runoff from new roof and paved areas should be collected in sealed pipes and be discharged to a Council approved stormwater system.

Under no circumstances should concentrated overflows from any source discharge into or onto the ground in an uncontrolled fashion.

11. UNDERGROUND SERVICES

The FNDC online GIS Water Services Map indicates that public underground stormwater and wastewater service lines are present beneath the southeastern portion of the site. The stormwater line runs parallel to the southeastern boundary, generally offset approximately 3.7m to 5.7m, whilst the wastewater line traverses from the southern boundary corner towards the middle of the site.

Other underground services, public or private, mapped, or unmapped, of any type could be also present.

A thorough service-search should be carried out prior to commencement of any excavations to locate the exact locations of the underground services.

12. DRAWING REVIEW

Once architectural drawings for future development proposals at proposed Lot 2 have been finalised, the drawings should be referred to us for review to verify that the recommendations contained in this report have been incorporated into the design.

13. 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 “pinprick” 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 (BCA) 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:

- Subgrade stripping (concrete floor slab),
- Hardfill compaction testing (concrete floor slab), and
- All pre-pour perimeter strip and bored footing excavations.

14. 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, **Colin Taylor,** in relation to the project as 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 as 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.

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

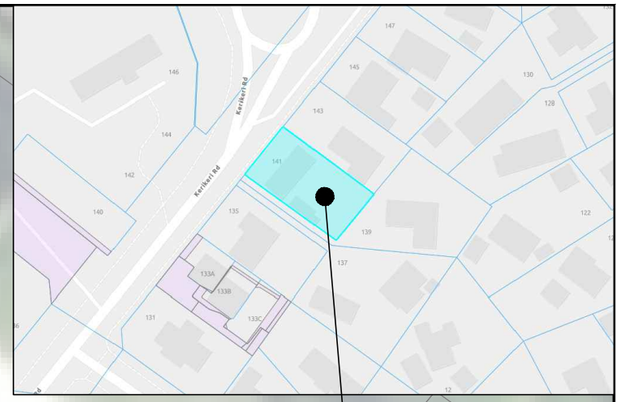
Appendices:

Site Plan (1 sheet)

Hand Auger Borehole Records (2 sheets)

'*Foundation Maintenance and Footing Performance*' homeowner's guide, published by CSIRO (4 sheets)

WJL's Construction Monitoring Information (1 sheet)



SITE LOCATION

IMAGE SOURCE:
FAR NORTH DISTRICT COUNCIL GIS MAPS

LOT 1
0.0475ha

HA 02

DESIGNATED BUILDING PLATFORM

HA 01

LOT 2
0.0407ha

SS

MS

SW

70.0

69.0

0m 2m 10m 20m

SCALE 1:200

SYMBOL KEY	
HA 01	HAND AUGER LOCATIONS

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.

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ISSUE / REVISION

No.	DATE	BY	DESCRIPTION
A	OCT '26	SJP	ISSUED WITH SUBDIVISIONAL GEOTECHNICAL REPORT

DESIGNED BY:
DRAWN BY: GMB
CHECKED BY: SJP
SURVEYED BY: OTHER

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: **2-LOT SUBDIVISION**

PROJECT TITLE: **PROPOSED SUBDIVISION OF LOT 10 DP 79582 141 KERIKERI ROAD KERIKERI**

ORIGINAL DRAWING SIZE:	OFFICE:
A3	KERIKERI
DRAWING SCALE:	CO-ORDINATE SYSTEM:
1:200	NOT COORDINATED

DRAWING NUMBER: **150099-G600** ISSUE: **A**

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HAND AUGER : HA01

CLIENT: Colin Taylor
PROJECT: 2-Lot Subdivision (1 Lot for Assessment)
SITE LOCATION: 141 Kerikeri Road, Kerikeri

JOB NO.: 150099 **SHEET:** 1 OF 1
START DATE: 16/10/2026 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: 1994 **ELEVATION:** Ground
FACTOR: 1.41 **DATUM:**

SOIL DESCRIPTION: TOPSOIL, CLAY, SAND, PEAT, FILL, SILT, GRAVEL, ROCK

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.	TS	0.2						
Kerikeri Volcanic Group	NATURAL: SILT, minor clay, brown with occasional orange mottles, very stiff, dry, no to low plasticity.		0.4	Groundwater Not Encountered	197+	-	-		
			0.6						
			0.8		UTP	-	-		
	1.0m: Trace clay, brown, very stiff to hard, dry to moist, no plasticity.		1.0						
			1.2		UTP	-	-		
			1.4						
			1.6		UTP	-	-		
	EOH: 1.70m - Too Hard To Auger		1.8		UTP	-	-		

REMARKS
End of borehole @ 1.70m (Target Depth: 3.00m)

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: CSH

▼ Standing groundwater level
▽ GW while drilling

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185 Waipapa Road, Kerikeri 0295
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Email: jobs@wjl.co.nz
Website: www.wiltonjoubert.co.nz

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HAND AUGER : HA02

CLIENT: Colin Taylor
PROJECT: 2-Lot Subdivision (1 Lot for Assessment)
SITE LOCATION: 141 Kerikeri Road, Kerikeri

JOB NO.: 150099 **SHEET:** 1 OF 1
START DATE: 16/10/2026 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: 1994 **ELEVATION:** Ground
FACTOR: 1.41 **DATUM:**

SOIL DESCRIPTION: TOPSOIL, CLAY, SAND, PEAT, FILL, SILT, GRAVEL, ROCK

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.	TS	0.2						
Kerikeri Volcanic Group	NATURAL: SILT, minor clay, occasional clasts, brown with occasional orange mottles and specks, very stiff, dry to moist, no to low plasticity.		0.4	Groundwater Not Encountered	197+	-	-		
			0.6						
			0.8		197+	-	-		
	1.2m: Very stiff to hard.		1.0						
			1.2		UTP	-	-		
			1.4						
	EOH: 1.60m - Too Hard To Auger		1.6		UTP	-	-		
			1.8						

REMARKS
End of borehole @ 1.60m (Target Depth: 3.00m)

NZGS Definition of Relative Density for Coarse Grain soils: VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense

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▼ Standing groundwater level
▽ GW while drilling

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FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE

Preventing soil-related building movement

This Building Technology Resource is designed as a homeowner's guide on the causes of soil-related building movement, and suggested methods to prevent resultant cracking.

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 home owner 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. Generally soil classification is provided by a geotechnical report.

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.

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. Table 1 below is a reproduction of Table 2.1 from Australian Standard AS 2870-2011, Residential slabs and footings.

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 may be the province of the builder and should be taken into consideration as part of the preparation of the site for construction.

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, from AS 2870). 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.

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.

TABLE 1. 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

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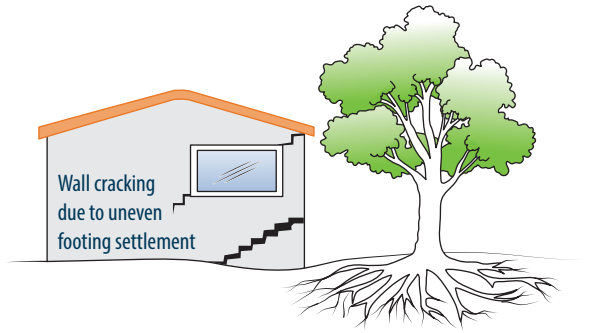


FIGURE 1 Trees can cause shrinkage and damage.

- 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 through absorption. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Shrinkage usually begins on the side of the building 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.

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

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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. Table 2 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 AND 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 may 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 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.

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.

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TABLE 2. CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS.

Description of typical damage and required repair	Approximate crack width limit	Damage category
Hairline cracks	<0.1 mm	0 – Negligible
Fine cracks which do not need repair	<1 mm	1 – Very Slight
Cracks noticeable but easily filled. Doors and windows stick slightly.	<5 mm	2 – Slight
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 – Moderate
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 – Severe

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Warning: Although this Building Technology Resource 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, and mould.
- 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

Existing trees may cause problems with the upheaval of footings by their roots, or shrinkage from soil drying. 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. Soil drying is a more complex issue and professional advice may be required before considering the removal or relocation of the tree.

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.

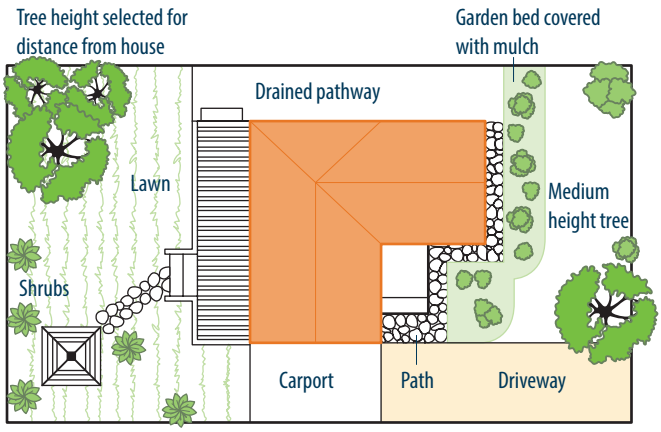


FIGURE 2 Gardens for a reactive site.

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 home owner 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 Ltd.

SPECIALISTS IN RESIDENTIAL ENGINEERING

Helping Kiwis build with confidence.

CONSTRUCTION MONITORING

Construction monitoring is when our engineer visits the site at key stages of construction to check that the work is being built in accordance with the consented engineering drawings and specifications.

We offer construction monitoring throughout the build to ensure compliance with consented designs. Our team works closely with your builder and site manager to keep the project running smoothly and ensure a quality result at each inspection stage.

BOOKING INSPECTIONS

If your project requires construction monitoring, please contact us to book inspections at the required stages before work is covered.

Please book inspections with enough notice to avoid delays to your build.

PS4

A PS4 (Producer Statement Construction Review) is a document issued by an engineer after construction monitoring has been completed for the relevant engineered works.

WILTON JOUBERT
Consulting Engineers

CONTACT: 09 527 0196

WWW.WILTONJOUBERT.CO.NZ

Chorus New Zealand Limited

16 November 2026

Chorus reference: 11811122

Attention: Andrew McPhee

Quote: New Property Development

1 connections at 141 Kerikeri Road , Kerikeri, Far North District, 0230

Your project reference: N/A

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

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

Fibre network	$1,400.00

The total contribution we would require from you is **$1,610.00 (including GST)**. This fee is a contribution towards the overall cost that Chorus incurs to link your development to our network. This quote is valid for 90 days from 13 November 2026. This quote is conditional on you accepting a New Property Development Contract with us for the above development.

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

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

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

Kind Regards

Chorus New Property Development Team

Top Energy Limited
John Butler Centre
60 Kerikeri Rd, PO Box 43
Kerikeri 0245, New Zealand
+64 (0)9 407 0600

13 November 2026

Andrew McPhee
Bay of Islands Planning

Email: andrew@bayplan.co.nz

To Whom It May Concern:

RE: PROPOSED SUBDIVISION
Colin Taylor, 141 Kerkeri Road, Kerikeri. Lot 10 DP 79582.

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

Top Energy's requirement is that power be made available for proposed lot 2. Top Energy advises that there is an existing power supply to proposed lot 1. Design and costs to provide a power supply to proposed lot 2 could be provided after application and an on-site survey has been completed. Link to application: Top Energy | Top Energy

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

Yours sincerely

Aaron Birt
Planning and Design
E: aaron.birt@topenergy.co.nz