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

Office Use Only
Application Number:

Application for resource consent or fast-track resource consent

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA)) (If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of Schedule 4). Prior to, and during, completion of this application form, please refer to Resource Consent Guidance Notes and Schedule of Fees and Charges — both available on the Council's web page.

1. Pre-Lodgement Meeting

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

2. Type of Consent being applied for

(more than one circle can be ticked):

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

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

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

◯ **Yes** ✔ **No**

4. Consultation

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

If yes, which groups have you consulted with?

Who else have you consulted with?

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

5. Applicant Details

Name/s: Nicola Mills

Email: [redacted]

Phone number: Work Home [redacted]

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

519 Puketotara Road
RD2
Kerikeri
Postcode 0295

6. Address for Correspondence

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

Name/s: Northland Planning and Development 2020 Limited c/o - Rochelle Jacobs

Email: [redacted]

Phone number: Work [redacted] Home

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

9/6 Fairway Drive, Kerikeri
Postcode

** 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: Peter and Pauline Mills

Property Address/ Location: 519 Puketotara Road
Postcode

8. Application Site Details

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

Name/s: Peter and Pauline Mills

Site Address/ Location: 519 Puketotara Road

Postcode

Legal Description: Lot 3 DP 360829 **Val Number:**

Certificate of title: ROT-247277

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.

yes please contact 021 812 385

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.

To erect a second residential unit on the property.

The proposal has been assessed as a Restricted Discretionary Activity within the Rural Production zone under the ODP.

If this is an application for a Change or Cancellation of Consent Notice conditions (s.221(3)), please quote relevant existing Resource Consents and Consent Notice identifiers and provide details of the change(s), with reasons for requesting them.

10. Would you like to request Public Notification?

◯ **Yes** ✓ **No**

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

(more than one circle can be ticked):

- [x] **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**
- [x] **Changing the use of a piece of land**
- [ ] **Disturbing, removing or sampling soil**
- [ ] **Removing or replacing a fuel storage system**

13. Assessment of Environmental Effects:

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

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

13. Draft Conditions:

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

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

14. Billing Details:

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

Name/s: (please write in full) Nicola Mills

Email: [redacted]

Phone number: Work Home [redacted]

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

519 Puketotara Road
RD2
Kerikeri
Postcode 0295

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) Nicola Mills

Signature: [redacted]
(signature of bill payer)

Date 15/10/25

MANDATORY

15. Important Information:

Note to applicant

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

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

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

Fast-track application

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

Privacy Information:

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

15. Important information continued...

Declaration

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

Name: (please write in full) Rochelle Jacobs

Signature: [redacted] Date 15-Oct-2025

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

Checklist (please tick if information is provided)

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

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

Land-Use Consent for

Nicola Mills

519 Puketotara Road, Waipapa

Date: 12 November 2025

Attention: Liz Searle & Nick Williamson (Team Leaders – Resource Consents)

Please find attached:

- an application form for a Land-use Resource Consent to relocate a second dwelling to a site within the ***Rural Production zone*** and
- an Assessment of Environmental Effects indicating the potential and actual effects of the proposal on the environment.

The application has been assessed as a **Restricted Discretionary Activity** under the Far North Operative District Plan and a **Permitted Activity** under the Proposed District Plan.

If you require further information, please do not hesitate to contact me.

Regards,

Alex Billot

Resource Planner

Reviewed by:

Rochelle Jacobs

Director/Senior Planner

NORTHLAND PLANNING & DEVELOPMENT 2020 LIMITED

Contents

Attachments:

1. **Far North District Council Application -** *signed*
2. **Record of Title -** *LINZ*
3. **Plan Set –** *Johnson Brierley Architecture Ltd*
4. **House Relocation Report** – *EP Group Ltd*
5. **TP58 –** *O'Brien Design Consulting Ltd*
6. **Geotech Report –** *Wilton Joubert*
7. **Easement B993566.8 –** *LINZ*
8. **Open Space Covenant 5603619.1 –** *LINZ*

Assessment of Environment Effects Report

1. Description of the Proposed Activity

1.1. This land use consent application is for the proposed relocation of a second dwelling on the site. The site is located at 519 Puketotara Road, Waipapa which contains an existing dwelling, farm buildings, grazing land and native bush. The owner's daughter (the applicant) proposes to relocate a two-bedroom dwelling on to the site, which will become the second dwelling on the site. Her parents (the owners) will continue to reside in the existing dwelling. The site is located within the Rural Production zone under the Operative District Plan **(ODP)**.

1.2. The proposed relocated dwelling will have a floor area of 74.75m^2, with attached decks, as shown in ***Figure 2*** below. It will be located approximately 48 metres to the southwest of the existing dwelling on the site and will be serviced by an independent onsite wastewater system as per the TP58 attached within **Appendix 5** of this application. The Applicant has advised that building consent for the relocated dwelling will be lodged in conjunction with this application and will include the supporting Relocation Report and Geotech report attached within **Appendices 4 & 6** of this application. This was lodged on the 12.11.25 and is referenced EBC-2026-439/0.

1.3. The site has an area of 9.42 hectares and the introduction of a second dwelling therefore infringes the permitted threshold for residential intensity but can comply with the Restricted Discretionary provisions of one dwelling per 4ha of land. Resource consent is therefore sought as a **Restricted Discretionary Activity** under the ODP.

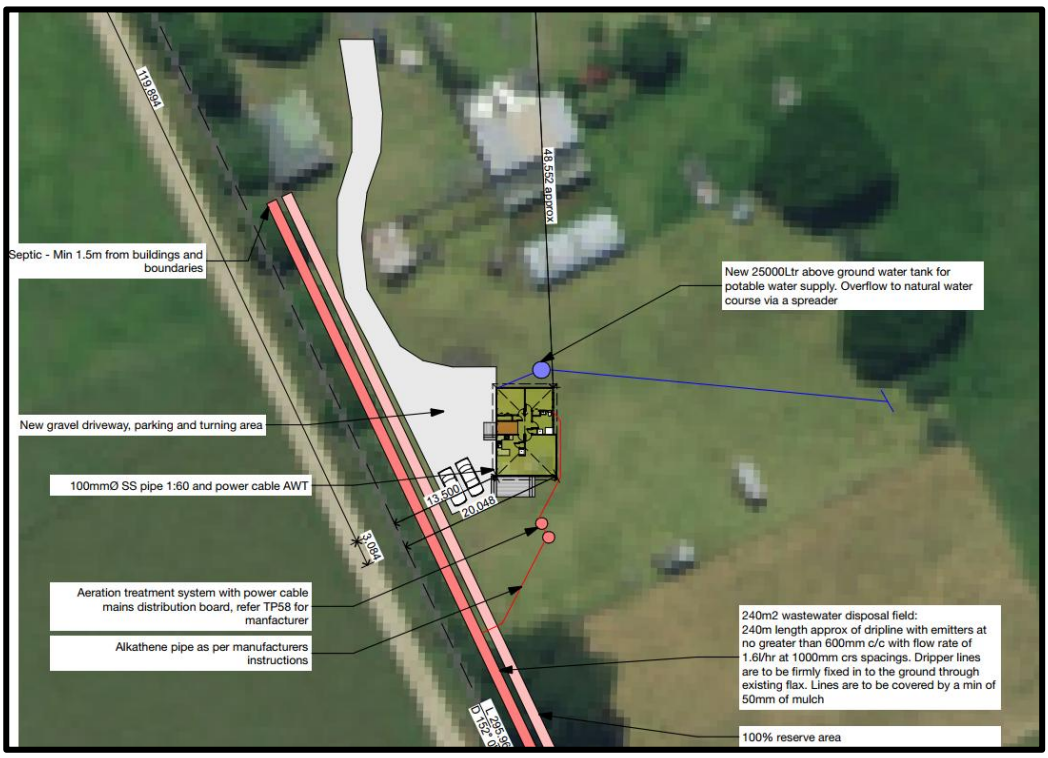


Figure 1: Site Plan showing approx. location of relocated dwelling and existing buildings on the site.

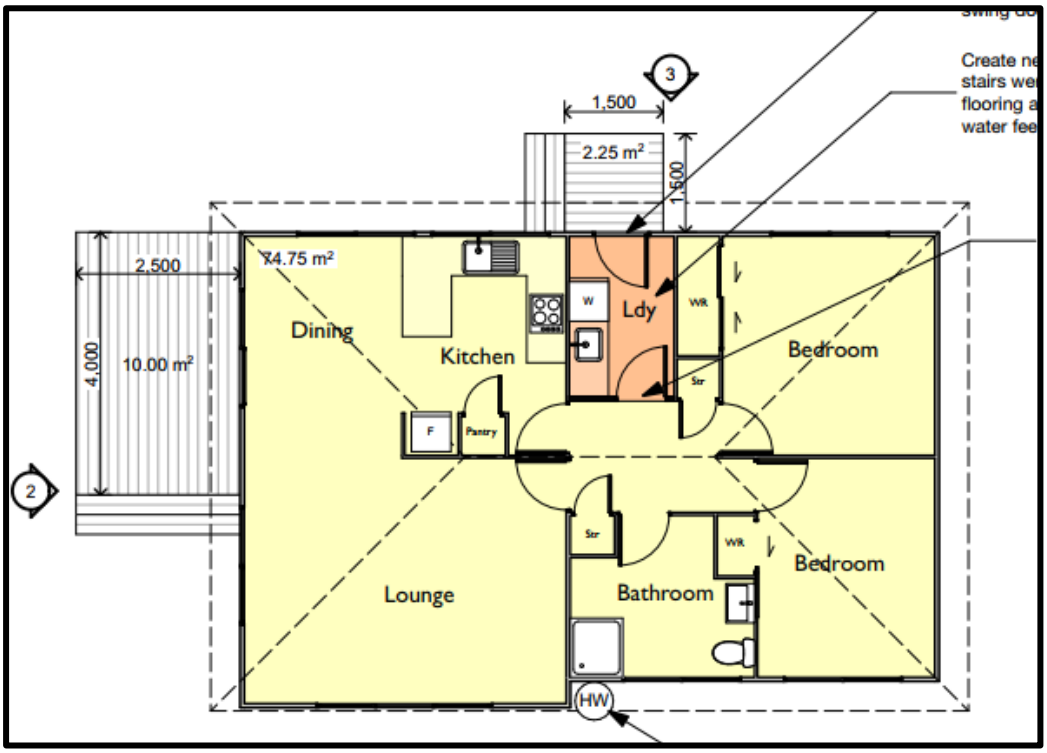


Figure 2: Proposed floor plan for relocated second dwelling.

Figure 3: Aerial image of the site and proposed location of second dwelling and other existing buildings.

2. Site Description

2.1. The property is located at 519 Puketotara Road, Waipapa. The northern portion of the site contains the existing dwelling and farm sheds, with access to the dwelling being from the north-western corner of the site. The southern portion of the site contains native bush which is formally protected under a QEII Open Space covenant which is registered on the title. A marginal strip then separates the area of native bush and Puketotara Stream. The area of protected bush is located over 180 metres to the south of the proposed second dwelling location. The remainder of the site is open grazed farmland utilised for grazing of a small number of animals.

2.2. The area where the second dwelling is to be located is a small, fenced paddock, which has been used for grazing of animals and keeping of domestic pet dogs of the owner. This area of fenced paddock will essentially become curtilage surrounding the proposed relocated dwelling, with the remainder of the site being unchanged. The driveway will be extended to the proposed second dwelling location, with parking for the second dwelling being provided at the proposed dwelling location.

2.3. The surrounding environment consists of a range of allotments, ranging from smaller 2000m^2 rural residential lots, to 2-10 hectare rural lifestyle allotments and larger lots in excess of 50 hectares utilised for productive use.

Site Photos

2.4. A site visit was undertaken in October 2025, with a compilation of the photos taken shown below.

Figure 5: Existing driveway to the existing dwelling.

Figure 4: Existing vegetation along western boundary near where dwelling is to be located.

Figure 6 - Vehicle crossing

Figure 7 - Vehicle crossing to property

Figure 8 - Neighbouring crossing onto Puketotara Road

Figure 9 - Proposed development area located within foreground. Farm sheds located in background.

Figure 10 – Neighbouring paddock adjacent to development looking north towards Puketotara road.

Figure 11 - Neighbouring paddock adjacent to development looking south towards the neighbouring dwelling. Top of roof just visible.

3. Title

3.1. The subject site is held within Record of Title 247277 and is legally described as Lot 3 DP 360829. The subject site has an area of 9.424ha and the title is dated 4th May 2006.

3.2. There are existing easements registered on the title under Easement Instruments D332524.4 and 6851155.4, which are depicted as Areas A & B on DP 360829. These easements include right of way, right to convey telecommunications, electricity and water supply over the subject site to the adjoining allotments. The proposal will not affect these existing easements.

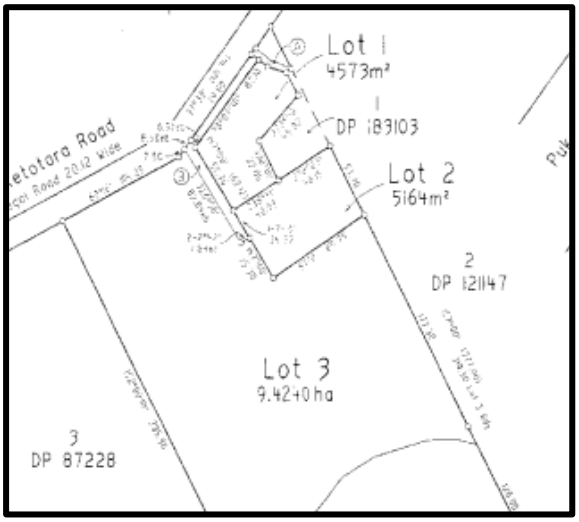


Figure 12: Snip of DP360829 showing location of Areas A & B which are subject to existing easements.

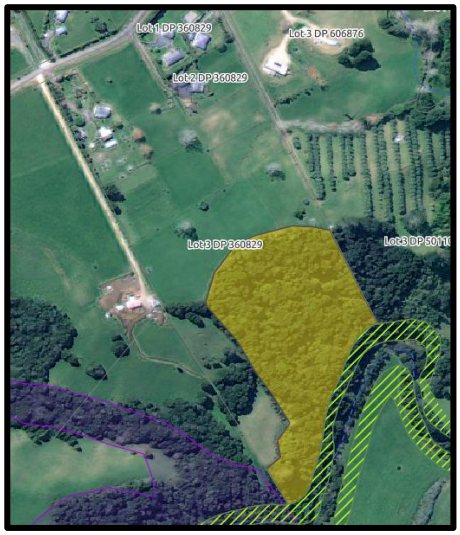


Figure 13: Area subject to QEII covenant shown in yellow.

3.3. As mentioned, an Open Space covenant pursuant to Section 22 Queen Elizabeth the Second National Trust Act 1977 is registered over the native bush within the southern portion of the site. This area of bush will not be affected by the proposal.

3.4. There is also an existing water supply right specified in Easement Certificate B993566.8. The portion of easement which affects the subject site is Easement G as shown on DP121147 (subject site depicted as Lot 1 DP121147). This will remain unaffected by the proposal.

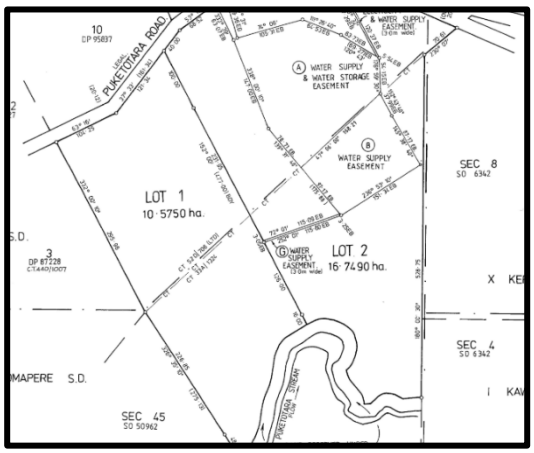


Figure 14: DP121147 showing location of Easement G.

Site Features

3.5. The property is located in the Rural Production Zone under the Operative District Plan. As mentioned, the southern portion of the site contains a QEII covenanted area, with a marginal strip then adjoining the Puketotara Stream. These areas will remain unaffected by the proposal. Under the Proposed District Plan the property is zoned as Horticulture.

3.6. Given the sites rural location, the site does not have any available connections to Council's infrastructure. The existing dwelling has existing onsite servicing which will remain unchanged. The proposed second dwelling will have independent servicing.

3.7. The NRC Hazard Maps do not show the site to be prone to any Natural Hazards.

3.8. The site is not registered as containing any archaeological sites.

3.9. The site is located within an area where kiwi are noted as being present. The nearest high density kiwi area is over 2 kilometres to the south.

3.10. The site contains soils which have a Land Use Classification of LUC 3s2; which is considered highly productive land under the NPS-HPL. As per the Land Guide to Implementation for the National Policy Statement for Highly Productive Land, consideration on the productive capacity of the land is not provided for within the discretion for activities with Controlled or Restricted Discretionary Activity status. However, consideration of the effect of the activity on existing land use activities must be provided for.

3.11. The site is not located within a Statutory Acknowledgement Area.

3.12. With regard to the Regional Policy Statement for Northland, the site is not located within the Coastal Environment and is not identified as containing an area of High Natural Character.

3.13. The site is not shown to be impacted by surface water protection zones.

4. Weighting of Plans

4.1. The Council notified its' PDP on 27 July 2022. The period for public submissions closed on the 21 October 2022. A summary of submissions was notified on the 4 August 2023. The further submission period closed on the 5 September 2023. It is apparent from the summary of submissions relating to the applicable zone that a large number relate to the application of these provisions. Based on the volume and comprehensive nature of these submissions, the Council has confirmed that no other rules will have legal effect until such time as a decision is made on those provisions.

4.2. District Plan hearings on submissions have recently concluded. No decision on the PDP provisions has been issued. For this reason, little weight is given to the PDP provisions with the exception of those rules which have immediate legal effect.

5. Activity Status of the proposal

Operative District Plan

5.1. The subject site is zoned Rural Production within the Operative District Plan. An assessment of the relevant permitted District Plan rules is outlined below:

Assessment of the Permitted Section 8.6.5.1 Rural Production		
Plan Reference	**Rule**	**Performance of Proposal**
8.6.5.1.1	**Residential Intensity**	The proposal will result in a second dwelling on the site. The permitted threshold for residential intensity is one dwelling per 12 hectares of land. The total land area for the site is 9.4 hectares and therefore the proposal cannot comply with this. The Restricted Discretionary provisions allow for one dwelling per 4 hectares of land. The proposal can comply with this. **Restricted Discretionary Activity**
8.6.5.1.2	**Sunlight**	The proposed second dwelling will be located at least 13.5 metres from the nearest site boundary and will be single level. The proposal is considered to adequately comply with this rule. **Permitted.**
8.6.5.1.3	**Stormwater Management**	The site is 9.4 hectares; therefore, to comply with this rule the site shall have less than 1.41 hectares of impermeable surface coverage. The existing and proposed impermeable surfaces will adequately comply with the permitted threshold. **Permitted.**
8.6.5.1.4	**Setback from Boundaries**	As detailed above, the proposed second dwelling will be located at least 13.5 metres from the nearest boundary such that the proposal complies with the permitted 10 metre setback. **Permitted.**
8.6.5.1.5	**Transportation**	**Permitted.** For further assessment please see below table.

8.6.5.1.6	**Keeping of Animals**	**Not applicable.**
8.6.5.1.7	**Noise**	Noise is anticipated to be consistent with a residential activity. **Permitted.**
8.6.5.1.8	**Building Height**	All heights are within the permitted threshold. **Permitted.**
8.6.5.1.9	**Helicopter Landing Area**	**Not applicable.**
8.6.5.1.10	**Building Coverage**	The site is 9.4 hectares; to comply with this rule the site shall have less than approximately 1.17 hectares of total building coverage. The proposal complies with this. **Permitted.**
8.6.5.1.11	**Scale of Activities**	**Not applicable.** No non-residential activities are proposed.
8.6.5.2.3	**Minor Residential Unit**	**Not applicable.** The proposed dwelling exceeds 65m^2 such that it cannot meet the definition of a minor residential unit.

District Wide Matters

Assessment of the District Wide Matters		
Plan Reference	**Rule**	**Performance of Proposal**
12.3.6.1.1	**Excavation and/or filling, including obtaining roading material but excluding mining and quarrying, in the Rural Production zone and Kauri Cliffs Zone.**	The site is relatively flat such that there are minimal earthworks required for the introduction of the second dwelling. Some excavations will be required for the building foundations however these are considered to be exempt as will be assessed further in this section. There are no cut/fill faces that will exceed 1.5 metres in height. **Permitted.**
12.4.6.1.2	**Fire Risk to Residential Units**	The proposed works are not considered to be within 20m of a bush dripline. **Permitted.**

12.7.6.1.1	**Setback from Lakes, Rivers & CMA**	The proposed second dwelling is over 400 metres from Puketotara Stream such that the proposal complies with this section. **Permitted.**
Assessment of the Chapter 15 Transportation		
15.1.6A	**Traffic Intensity**	The permitted TIF for the Rural Production zone is 60 for a site which is not accessed via a State Highway. The proposal will result in one additional dwelling. The first dwelling is exempt from this rule, such that the total TIF for the site as a result of this proposal will be 10. **Permitted**
15.1.6B	**Parking**	The parking to the existing dwelling will remain unchanged, with new parking spaces provided for the second dwelling being located next to the proposed dwelling. **Permitted**
15.1.6C	**Access**	Access to the site will be via the existing crossing place. It is offered as a condition of consent that the crossing place be upgraded to the required standard. Passing bays are not considered necessary along the existing driveway, with the existing access near the existing dwelling providing adequate area for oncoming vehicles to pullover. **Permitted**

Operative District Plan Infringements

5.2. The assessment above has identified the following infringement to the District Plan Rules:

- 8.6.5.1.1 Residential Intensity

5.3. The proposal can comply with all other rules within 8.6.5.1 as well as 8.6.5.2 and 8.6.5.3 and the relevant standards within the District Wide Provisions. The proposal is therefore assessed as a **Restricted Discretionary Activity** in accordance with Section 8.6.5.3. The Council may approve or refuse an application for a restricted discretionary activity, and it may impose conditions on any consent. In assessing an application for a restricted discretionary activity, the Council will restrict the exercise of its discretion to the specific matters listed for each rule, or where there is no rule, to the specific matters listed below under the appropriate heading.

Proposed District Plan

5.4. The proposal is also subject to the Proposed District Plan process. Within the Proposed District Plan, the site is zoned Horticulture. An assessment of the matters relating to the Proposed District Plan that have immediate legal effect, has been undertaken below:

Chapter	Rule Reference	Compliance of Proposal
Hazardous Substances	The following rules have immediate legal effect: Rule HS-R2 has immediate legal effect but only for a new significant hazardous facility located within a scheduled site and area of significance to Māori, significant natural area or a scheduled heritage resource Rules HS-R5, HS-R6, HS-R9	**Not applicable.** The site does not contain any hazardous substances to which these rules would apply.
Heritage Area Overlays	All rules have immediate legal effect (HA-R1 to HA-R14) All standards have immediate legal effect (HA-S1 to HA-S3)	**Not applicable.** The site is not located within a Heritage Area Overlay.
Historic Heritage	All rules have immediate legal effect (HH-R1 to HH-R10). Schedule 2 has immediate legal effect.	**Permitted** The site does not contain any historic heritage.
Notable Trees	All rules have immediate legal effect (NT-R1 to NT-R9) All standards have legal effect (NT-S1 to NT-S2) Schedule 1 has immediate legal effect	**Not applicable.** The site does not contain any notable trees.
Sites and Areas of Significance to Māori	All rules have immediate legal effect (SASM-R1 to SASM-R7) Schedule 3 has immediate legal effect	**Not applicable.** The site does not contain any sites or areas of significance to Māori.
Ecosystems and Indigenous Biodiversity	All rules have immediate legal effect (IB-R1 to IB-R5) IB-R1 – Indigenous vegetation pruning, trimming and clearance and any associated land disturbance for specified activities within and outside a Significant Natural Area.	**Permitted.** No vegetation clearance is proposed.
Subdivision	The following rules have immediate legal effect:	**Not applicable.**

	SUB-R6, SUB-R13, SUB-R14, SUB-R15, SUB-R17	The proposal is not for subdivision.
Activities on the Surface of Water	All rules have immediate legal effect (ASW-R1 to ASW-R4)	**Not applicable.** The proposal does not involve activities on the surface of water.
Earthworks	The following rules have immediate legal effect: EW-R12, EW-R13 The following standards have immediate legal effect: EW-S3, EW-S5	**Permitted.** Earthworks as part of this proposal will proceed in accordance with the Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016, in accordance with Rules EW-12, EW-R13, EW-S3 and EW-S5.
Signs	The following rules have immediate legal effect: SIGN-R9, SIGN-R10 All standards have immediate legal effect but only for signs on or attached to a scheduled heritage resource or heritage area	**Not applicable.** No signs are proposed as part of this application.
Orongo Bay Zone	Rule OBZ-R14 has partial immediate legal effect because RD-1(5) relates to water	**Not applicable.** The site is not located in the Orongo Bay Zone.

5.5. The proposal is **Permitted** within the Proposed District Plan.

National Environmental Standards

National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

5.6. The site is not identified as HAIL on the Council database of HAIL sites. A review of historic aerials has determined that there are no known activities that have previously occurred or are currently occurring on the site that are registered as HAIL Activities.

5.7. A site visit was also undertaken and no activities within the development area or its curtilage appear to be HAIL. For this reason, the NESCS (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) is not a consideration of this application. The proposal is considered **Permitted** in terms of this regulation.

5.8. There are no other National Environmental Standards relevant to this application.

Control of Earthworks Bylaw

5.9. As per the assessment above, no District or Regional consents are required for earthworks, and as such an assessment under the control of earthworks bylaw is considered necessary.

5.10. The earthworks required for this application generally meet the exemptions under the definition of excavation being:

(e) septic tanks and associated drainage fields
(f) excavation for building foundations and stripping of topsoil to form a building footprint

5.11. For completeness the earthworks triggers have been assessed below.

ASSESSMENT OF THE APPLICABLE CONTROL OF EARTHWORKS RULES:		
PERFORMANCE STANDARDS		
Bylaw Reference	**Rule**	**Performance of Proposal**
7.1	**(a)**	**Complies** While some works will be undertaken within 3m of the site boundaries these works meet the exemptions within the definition of excavation in the bylaw.
	(b)	**Complies** As above - the works are determined to meet the exemptions within the definition of excavation in the bylaw.
	(c)	**Complies** The site is located within the Rural Production Zone, however the works are determined to meet the exemptions.
	(d)	**Complies** The site is outside of any resource features.
	(e)	**Complies** Stormwater runoff will not adversely impact upon any adjoining properties.

5.12. As per the assessment above, no earthworks permit is required.

6. Statutory Assessment

Section 104C of the Act

6.1. Section 104C governs the determination of applications for Restricted Discretionary Activities. When considering an application for resource consent, a consent authority must consider only those matters over which a discretion is restricted in national environmental standards or other regulations, or it has restricted the exercise of its discretion in its plan or proposed plan. The consent authority can grant or refuse the application. If the application is granted, the consent authority may impose conditions under Section 108 only for those matters listed above.

Section 104(1) of the Act

6.2. Section 104(1) of the Act states that when considering an application for resource consent –

"the consent authority must, subject to Part II, have regard to –

(a) any actual and potential effects on the environment of allowing the activity; and

(ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment that will or may result from allowing the activity; and

(b) any relevant provisions of –

i. a national environmental standard:

ii. other regulations:

iii. a national policy statement:

iv. a New Zealand Coastal Policy Statement:

v. a regional policy statement or proposed regional policy statement:

vi. a plan or proposed plan; and

(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application."

6.3. Actual and potential effects arising from the development as described in 104(1)(a) can be both positive and adverse (as described in Section 3 of the Act). Positive effects arising from this development include that a second dwelling will be introduced to the site which can accommodate the owner's daughter, whilst ensuring the second dwelling is not objectionable within the site or surrounding environment as well as being adequately serviced.

6.4. Section 104(1)(ab) requires that the consent authority consider 'any measure proposed or agreed to by the applicant for the purposes of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity'. In this case, the proposal is not of a scale or nature that would

require specific offsetting or environmental compensation measures to ensure positive effects on the environment.

6.5. Section 104(1)(b) requires that the consent authority consider the relevant provisions of the above listed documents. An assessment of the relevant statutory documents that corresponds with the scale and significance of the effects that the activity may have on the environment has been provided in Section 8 below.

6.6. Section 104(1)(c) states that consideration must be given to 'any other matters that the consent authority considers relevant and reasonable, necessary to determine the application.' There are no other matters relevant to this application.

7. Environmental Effects Assessment

7.1. Having reviewed the relevant plan provisions and taking into account the matters to be addressed by an assessment of environmental effects as outlined in Clause 7 of Schedule 4 of the Act, the following environmental effects warrant consideration as part of this application.

7.2. The proposal is to be assessed as a Restricted Discretionary Activity as per *8.6.5.3 Restricted Discretionary Activities*. The Council may approve or refuse an application for a restricted discretionary activity, and it may impose conditions on any consent. In assessing an application for a restricted discretionary activity, the Council will restrict the exercise of its discretion to the specific matters listed for each rule, or where there is no rule, to the specific matters listed below under the appropriate heading.

Residential Intensity

7.3. The proposal results in a breach of the permitted standard for Residential Intensity and as such, the criteria within the Restricted Discretionary provisions, Rule 8.6.5.3.6, will be undertaken below.

When considering an application under this provision the Council will restrict the exercise of its discretion to matters relating to:
(a) effects on the natural character of the coastal environment for proposed residential units which are in the coastal environment;
(b) for residential units within 500m of land administered by the Department of Conservation, effects upon the ability of the Department to manage and administer its land;
(c) effects on areas of significant indigenous flora and significant habitats of indigenous fauna;
(d) the mitigation of fire hazards for health and safety of residents.
(e) the character and appearance of building(s) and the extent to which the effects they generate can be avoided, remedied or mitigated;

(f) the siting of the building(s), decks and outdoor areas relative to adjacent dwellings and properties (including the road boundary) in order to avoid visual domination and loss of privacy and sunlight to those adjacent dwellings and properties;
(g) the size, location and design of open space associated with each residential unit, and the extent to which trees and garden plantings are utilised for mitigating adverse effects;
(h) the ability of the immediate environment to cope with the effects of additional vehicular and pedestrian traffic;
(i) any servicing requirements and/or constraints of the site;
(j) the ability to provide adequate opportunity for landscaping and buildings and for all outdoor activities associated with the residential unit(s);
(k) the extent of visual and aural privacy between residential units on the site and their associated outdoor spaces;
(l) The extent to which the location of the building could create reverse sensitivity effects on adjacent rural production activities.

7.4. The site is not located within the coastal environment. The site does contain an area of QEII open space covenant, which is not administered by DOC. The proposed second dwelling location is over 180 metres from the native bush within the QEII covenant and will not be affected by the proposal given this separation distance. The proposed second dwelling will not be located within 20 metres of the dripline of any bush areas. There is some maintained landscaping along the westernmost boundary however this is not classified as being a fire hazard. Water supply will be provided for onsite as will be required as part of the building consent process.

7.5. The proposed second dwelling is to be a relocated home. The second dwelling will be set behind the existing dwelling, nearly 50 metres to the southwest, such that it will not be easily visible from the road boundary. The dwelling located within the adjoining western allotment is over 150 metres away and given the existing topography of the sites and the existing landscaping along the western boundary which provides wind protection for the proposed dwelling location, visual effects are considered to be less than minor. The second dwelling will be in excess of 10 metres from the boundaries such that there is no infringement of the permitted bulk and location rules. As such, the character and appearance of the second dwelling is considered to be consistent within the subject site and surrounding environment. The dwelling will be orientated south/southwest to encapsulate views of the surrounding farmland. Given the separation distance of the existing dwelling on the site and the fact there are existing sheds which separate the two, no adverse effects in terms of visual domination or sunlight are anticipated. There is adequate area around the proposed dwelling to ensure there is no loss of privacy or sunlight on adjoining allotments dwellings. No additional landscaping is proposed given the existing buildings and landscaping on the site are considered adequate for the proposal. The dwelling is to be utilised by the Applicant with her parents living in the existing dwelling such that additional mitigation measures are not considered necessary.

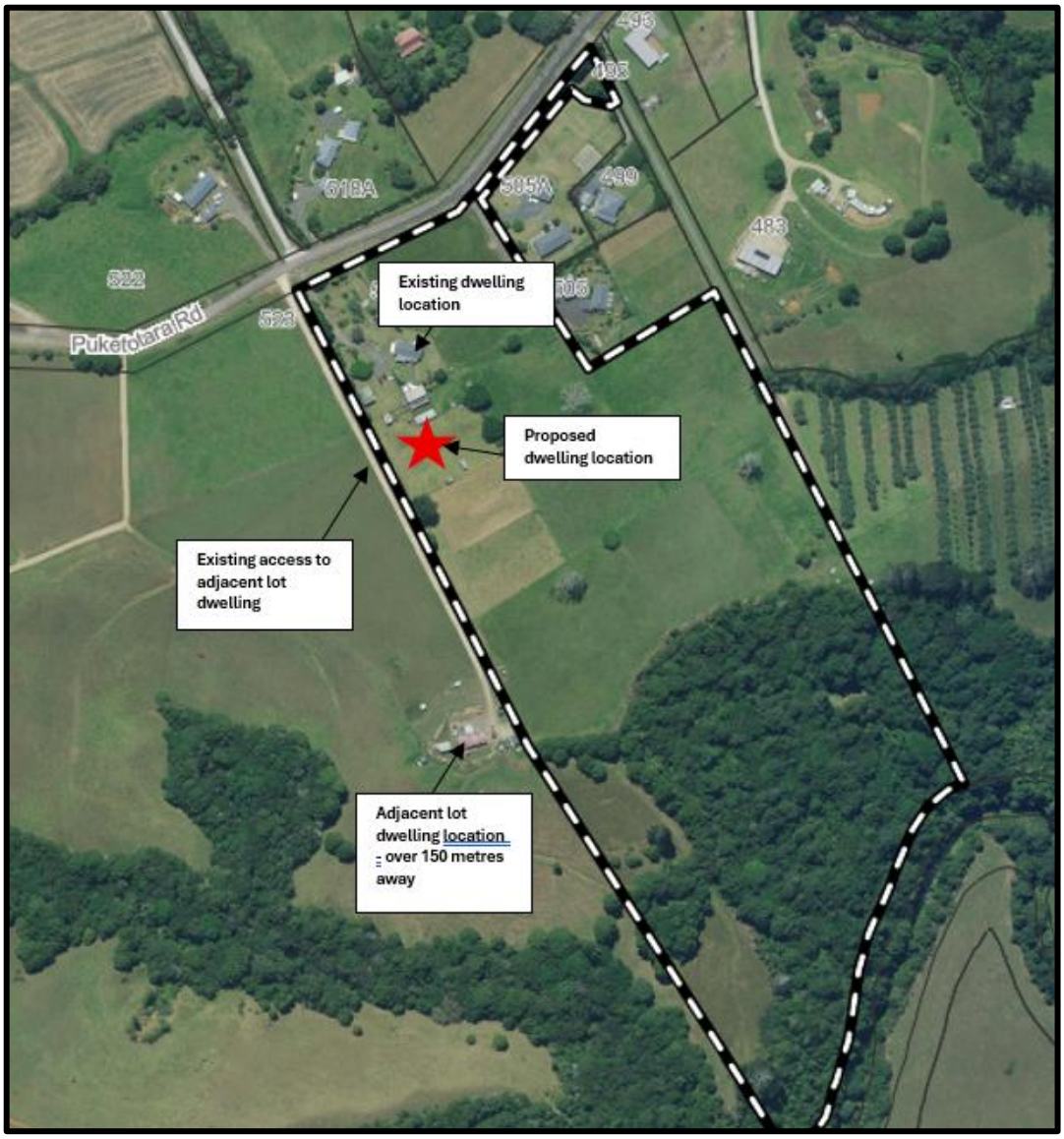


Figure 15: Aerial image locating features.

7.6. The proposal will see an increase in TIF of 10, which is well within the permitted threshold for the zone. A condition of consent has been offered to upgrade the existing crossing place to the required standard which provides a superior outcome. The additional traffic is anticipated to be easily absorbed into the existing network.

7.7. A TP58 and Geotech report have been provided for the proposed second dwelling with no known servicing constraints for the site. There is ample area within the site to accommodate any additional landscaping and outdoor activities. Given the location of the existing buildings and fences around the existing dwelling, there is adequate visual and aural privacy between the two units. As both units will be occupied by family members, it is the intention that the units are close enough to enable ease of support between the family members occupying the units.

7.8. As the proposed dwelling location complies with the bulk location rules, it is considered there is adequate separation distance between the proposed dwelling and adjacent rural productive activities. The allotment to the west is a rural productive unit, with the accessway to the dwelling on the adjoining allotment running along the dividing boundary, such that this adds an additional buffer between the proposed dwelling and productive activities. Given the existing use of the site, no reverse sensitivity effects are anticipated.

7.9. Overall, it is considered that the proposed relocated dwelling will not be objectionable within the site or surrounding environment. The dwelling will be located in reasonable proximity to the existing dwelling to provide ease of support between the two units which will also only require a small extension to the existing internal driveway. The crossing place has been proposed to be upgraded to the required standard. Onsite servicing is available to the proposed relocated dwelling as per the supporting reports. No reverse sensitivity effects are anticipated.

8. Policy Documents

8.1. In accordance with Section 104(1)(b) of the Act, the following documents are considered relevant to this application.

National Environmental Standards

National Environment Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

8.2. As mentioned earlier in this report, there have been no previous or current activities listed as HAIL, undertaken on the site. The proposal is therefore considered permitted in terms of the National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011.

National Environment Standard for Freshwater 2020

8.3. There are no areas on the site which are considered to meet the definition of a natural inland wetland, the proposal does not involve reclamation of a river nor will the passage of fish be affected and therefore the NES for Freshwater is not considered applicable.

Other National Environmental Standards

8.4. No other National Environmental Standards are considered applicable to this development.

National Policy Statements

8.5. There are currently 8 National Policy Statements in place. These are as follows:

- National Policy Statement on Urban Development
- National Policy Statement for Freshwater Management

- National Policy Statement for Renewable Electricity Generation
- National Policy Statement on Electricity Transmission
- New Zealand Coastal Policy Statement
- National Policy Statement for Highly Productive Land.
- National Policy Statement for Indigenous Biodiversity.
- National Policy Statement for Greenhouse Gas Emissions from industrial Process Heat

8.6. In this case, the only National Policy Statement which is relevant to this site is the National Policy Statement for Highly Productive Land.

National Policy Statement for Highly Productive Land

8.6.1. As per the Land Guide to Implementation for the National Policy Statement for Highly Productive Land (NPS-HPL), consideration on the productive capacity of the land is not provided for within the discretion for activities with Controlled or Restricted Discretionary Activity statuses. However, consideration of the effect of the activity on existing land use activities must be provided for.

8.6.2. As has been discussed within this report, no reverse sensitivity or incompatible land uses are anticipated. All onsite wastewater and stormwater can be managed onsite without creating adverse downstream effects. The proposed second dwelling will comply with the bulk location rules for the zone and will be located in reasonable proximity to the existing dwelling such that it will be consistent with existing built development within the site. No additional crossing places are proposed, and the existing internal drive will be extended to allow access to the proposed dwelling location. There is adequate separation distance between the proposed dwelling location and adjacent productive activities given the setback distance from the dwelling to the boundary, the location of the adjacent lot's internal driveway as well as landscaping along the dividing boundary, such that reverse sensitivity effects are not anticipated. The existing use of the site can remain, with the proposed dwelling being contained within an existing fenced area of the site.

8.6.3. As such, it is considered that the proposal will not create any reverse sensitivity effects or incompatible land uses and is consistent with the productive intent for the zone.

Regional Policy Statement for Northland

8.7. The relevant policy statement applicable to the application is the Operative Regional Policy Statement for Northland (RPSN). The activity is not located within any areas identified as having High Natural Character; the site is not known to be located within an area of Outstanding Landscape or within the Coastal Environment.

8.8. The relevant objectives and policies relate to Economic Wellbeing, Tangata Whenua, Natural character, Indigenous Ecosystems and Species, Historic Heritage, Infrastructure, and Water quality management.

8.9. The proposal is considered to create no more than minor effects on the character of the locality. The proposal is considered to have negligible effects on the life supporting capacity of air, water, soil and ecosystems. As such, it is considered the proposal is compatible with the intent of the RPS.

8.10. As per the assessment above, the proposal is not considered to create any adverse effects in relation to the above-mentioned themes.

8.11. It is considered that with the imposition of the recommendations of this report, the activity is not contrary to the RPSN.

Far North Operative District Plan

Relevant Objectives and Policies

8.12. The relevant objectives and policies of the Plan are those related to the Rural Environment, in particular Chapter 8.6 Rural Production Zone. The proposal is considered to create less than minor adverse effects on the surrounding environment. The proposal is considered to be consistent with the character of the surrounding area and is considered to have negligible effects on the amenity value of the area. The proposal is considered to be consistent with the objectives and policies of the Plan, as per below.

Assessment of the objectives and policies within the Rural Environment

8.13. The following assessment is based upon the objectives and policies contained within Sections 8.3 and 8.4.

Objectives

8.3.1 To promote the sustainable management of natural and physical resources of the rural environment.

8.3.2 To ensure that the life supporting capacity of soils is not compromised by inappropriate subdivision, use or development.

8.3.3 To avoid, remedy or mitigate the adverse and cumulative effects of activities on the rural environment.

8.3.4 To protect areas of significant indigenous vegetation and significant habitats of indigenous fauna.

8.3.5 To protect outstanding natural features and landscapes.

8.3.6 To avoid actual and potential conflicts between land use activities in the rural environment.

8.3.7 To promote the maintenance and enhancement of amenity values of the rural environment to a level that is consistent with the productive intent of the zone.

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

8.3.9 To enable rural production activities to be undertaken in the rural environment.

8.3.10 To enable the activities compatible with the amenity values of rural areas and rural production activities to establish in the rural environment.

8.13.1. The sustainable management of natural and physical resources is promoted by ensuring that the native bush on the site is unaffected by the proposal and the site can adequately provide for the onsite servicing for the additional dwelling. There is ample land within the site to continue the existing productive activities within the site. The life supporting capacity of soils is not considered to be compromised. No adverse or cumulative effects are anticipated given all effects can be managed within the site boundaries. The areas of significant indigenous vegetation within the site will remain unaffected. No conflicts in land use activities are anticipated. Amenity values will be maintained. Superior outcomes are achieved as the proposal will enable the existing productive activities to continue whilst enabling extended family to live on the land to provide support. Rural production activities can still be undertaken within the zone. The proposed activity is considered compatible with the zone and surrounding environment.

Policies

8.4.1 That activities which will contribute to the sustainable management of the natural and physical resources of the rural environment are enabled to locate in that environment.

8.4.2 That activities be allowed to establish within the rural environment to the extent that any adverse effects of these activities are able to be avoided, remedied or mitigated and as a result the life supporting capacity of soils and ecosystems is safeguarded, and rural productive activities are able to continue.

8.4.3 That any new infrastructure for development in rural areas be designed and operated in a way that safeguards the life supporting capacity of air, water, soil and ecosystems while protecting areas of significant indigenous vegetation and significant habitats of indigenous fauna, outstanding natural features and landscapes.

8.4.4 That development which will maintain or enhance the amenity value of the rural environment and outstanding natural features and outstanding landscapes be enabled to locate in the rural environment.

8.4.5 That plan provisions encourage the avoidance of adverse effects from incompatible land uses, particularly new developments adversely affecting existing land-uses (including by constraining the existing land-uses on account of sensitivity by the new use to adverse affects from the existing use – i.e. reverse sensitivity).

8.4.6 That areas of significant indigenous vegetation and significant habitats of indigenous fauna habitat be protected as an integral part of managing the use, development and protection of the natural and physical resources of the rural environment.

8.4.7 That Plan provisions encourage the efficient use and development of natural and physical resources, including consideration of demands upon infrastructure.

8.4.8 That, when considering subdivision, use and development in the rural environment, the Council will have particular regard to ensuring that its intensity, scale and type is controlled to ensure that adverse effects on habitats (including freshwater habitats), outstanding natural features and landscapes on the amenity value of the rural

environment, and where appropriate on natural character of the coastal environment, are avoided, remedied or mitigated. Consideration will further be given to the functional need for the activity to be within rural environment and the potential cumulative effects of non-farming activities.

8.13.2. Sustainable management of natural and physical resources will be maintained. No adverse effects are anticipated from the proposal and the life supporting capacity of soils is not anticipated to be affected. Areas of significant indigenous vegetation will remain unaffected. Amenity values will be maintained. No incompatible land uses are anticipated. The proposal is considered to provide for the appropriate use of natural and physical resources. The intensity, scale and type is considered to be anticipated by the plan given the proposal is a restricted discretionary activity. The proposal is considered to have a functional need to be located within the environment given the dwelling will support extended family.

Assessment of the objectives and policies within the Rural Production Zone

8.14. The following assessment is based upon the objectives and policies contained within Sections 8.6.3 and 8.6.4.

Objectives

8.6.3.1 To promote the sustainable management of natural and physical resources in the Rural Production Zone.

8.6.3.2 To enable the efficient use and development of the Rural Production Zone in a way that enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety.

8.6.3.3 To promote the maintenance and enhancement of the amenity values of the Rural environment to a level that is consistent with the productive intent of the zone.

8.6.3.4 To enable rural production activities to be undertaken in the zone.

8.6.3.5 To promote the protection of significant natural values of the Rural Production Zone.

8.6.3.6 To avoid, remedy or mitigate the actual and potential conflicts between new land use activities and existing lawfully established activities (reverse sensitivity) within the Rural Production Zone and on land use activities in neighbouring zones.

8.6.3.7 To avoid remedy or mitigate the adverse effects of incompatible use or development on natural and physical resources.

8.6.3.8 To enable the efficient establishment and operation of activities and services that have a functional need to be located in rural environments.

8.6.3.9 To enable rural production activities to be undertaken in the zone.

8.14.1. The proposal promotes the sustainable management of natural and physical resources. The proposal will provide for social, economic and cultural well-being by enabling the Applicant to reside on the same allotment as their parents. Amenity values will be maintained. Rural production activities can still be undertaken within the zone. Natural values will be protected. No conflicts in land use activities are anticipated nor reverse sensitivity effects.

No incompatible land use is proposed. The proposal can easily be accommodated for within the site and rural production activities can continue to be undertaken in the zone.

Policies

8.6.4.1 That the Rural Production Zone enables farming and rural production activities, as well as a wide range of activities, subject to the need to ensure that any adverse effects on the environment, including any reverse sensitivity effects, resulting from these activities are avoided, remedied or mitigated and are not to the detriment of rural productivity.

8.6.4.2 That standards be imposed to ensure that the off-site effects of activities in the Rural Production Zone are avoided, remedied or mitigated.

8.6.4.3 That land management practices that avoid, remedy or mitigate adverse effects on natural and physical resources be encouraged

8.6.4.4 That the type, scale and intensity of development allowed shall have regard to the maintenance and enhancement of the amenity values of the Rural Production Zone to a level that is consistent with the productive intent of the zone

8.6.4.5 That the efficient use and development of physical and natural resources be taken into account in the implementation of the Plan.

8.6.4.6 That the built form of development allowed on sites with frontage to Kerikeri Road between its intersection with SH10 and Cannon Drive be maintained as small in scale, set back from the road, relatively inconspicuous and in harmony with landscape plantings and shelter belts.

8.6.4.7 That although a wide range of activities that promote rural productivity are appropriate in the Rural Production Zone, an underlying goal is to avoid the actual and potential adverse effects of conflicting land use activities.

8.6.4.8 That activities whose adverse effects, including reverse sensitivity effects, cannot be avoided remedied or mitigated are given separation from other activities

8.6.4.9 That activities be discouraged from locating where they are sensitive to the effects of or may compromise the continued operation of lawfully established existing activities in the Rural Production zone and in neighbouring zones.

8.14.2. There are no adverse effects anticipated to arise from the proposal. All effects can be managed within the respective lot boundaries. No conflicting land uses, or reverse sensitivity effects are anticipated as there is no change to the existing activities already occurring within the subject site. The proposed activity is consistent with those in the surrounding environment being rural lifestyle living. No adverse effects on natural and physical resources are anticipated. Amenity values will be maintained. The proposal is considered to be of an appropriate type, scale and intensity for the environment. The proposal is not considered to affect the continued operation of lawfully established existing activities.

Proposed Far North District Plan

8.15. As discussed in the sections above, the site is located within the Horticulture zone under the PDP. The proposal is considered to be consistent with the character of the surrounding area and is considered to have negligible effects on the amenity value of the area. Although the

site is proposed to be rezoned as Horticulture, it is worth noting that the site size combined with the existing development and indigenous vegetation on the site would render the site not suitable for large scale productive use. The adjoining sites to the east are also of smaller size and more intense land use activities such that it is considered that Horticulture use would be inappropriate. Given the close proximity of the river, marginal strip and QEII covenanted land, there could also potentially be reverse sensitivity effects for any horticulture use of the site. The s32 report for the Horticulture zone advises this zone does not prevent existing lawfully established activities from continuing to be used for residential activities, nor does it require a landowner to undertake a horticulture activity. It is further noted that the Council through hearing 9 recommended that the horticulture zone be replaced with a Horticulture Precinct overlay, over rural production zoning. While the hearing has occurred, a s42A Right of reply is yet to be released. Given the above, little weighting is given to the PDP provisions. While this is the case, an assessment of the objectives and policies for the Horticulture zone has been undertaken below.

Assessment of objectives and policies in the Horticulture zone

Objectives

HZ-O1 - The Horticulture zone is managed to ensure its availability for Horticultural activities and its long-term protection for current and future generations.

HZ-O2 The Horticulture zone enables horticultural and ancillary activities, while managing adverse environmental effects on site.

HZ-O3 - Land use and subdivision in the Horticulture zone:
a. avoids land sterilisation that reduces the potential for highly productive land to be used for a horticulture activity;
b. avoids land fragmentation that comprises the use of land for horticultural activities;
c. avoids any reverse sensitivity effects that may constrain the effective and efficient operation of primary
d. production activities;
e. does not exacerbate any natural hazards;
f. maintains the rural character and amenity of the zone;
g. is able to be serviced by on-site infrastructure.

8.15.1. The proposal will not affect the availability of land for primary production activities, as the site is rural lifestyle in nature. The site is just over 9 hectares with existing development; the proposal is not considered to alter the availability of land for primary production activities as the proposed second dwelling will be in reasonable proximity to the existing built development within the site.

8.15.2. The proposal will support the existing activities on site, which is rural lifestyle; while the Horticulture zone enables horticultural activities, the site was subdivided and developed prior to the rezoning. The proposal will not change the existing situation on site.

8.15.3. Given the site has been subdivided for rural lifestyle living, the surrounding environment and the site has already been developed, the proposal is not considered to result in any land sterilisation of highly productive land. The site does not contain any natural hazards and contains existing onsite infrastructure which services the existing development. The proposal is complementing the existing activities on site, and adjacent properties such that it is not considered to result in reverse sensitivity. No reverse sensitivity effects are anticipated. The proposal does not compromise the use of the land for farming activities or result in fragmentation.

8.15.4. The site is not prone to any known natural hazards.

8.15.5. On-site infrastructure is existing on site with new infrastructure proposed to accommodate the proposed activities.

8.15.6. The rural character and amenity will not be affected as the proposed development is consistent with other built development in the area.

Policies

HZ-P1 - Identify a Horticulture Zone in the Kerikeri / Waipapa area using the following criteria:
a) presence of highly productive land suitable for horticultural use;
b) access to a water source, such as an irrigation scheme or dam able to support horticultural use; and
c) infrastructure available to support horticultural use.

HZ-P2 - Avoid land use that:
a) is incompatible with the purpose, function and character of the Horticulture Zone;
b) will result in the loss of productive capacity of highly productive land;
c) compromises the use of highly productive land for horticultural activities in the Horticulture Zone; and
d) does not have a functional need to be located in the Horticultural Zone and is more appropriately located in another zone.

HZ-P3 - Enable horticulture and associated ancillary activities that support the function of the Horticulture zone, where:
a) adverse effects are contained on site to the extent practicable; and
b) they are able to be serviced by onsite infrastructure.

HZ-P4 - Ensure residential activities are designed and located to avoid, or otherwise mitigate, reverse sensitivity effects on horticulture activities, including adverse effects associated with dust, noise, spray drift and potable water collection.

HZ-P5 - Manage the subdivision of land in the Horticulture zone to:
a) avoid fragmentation that results in loss of highly productive land for use by horticulture and other farming activities;
b) ensure the long-term viability of the highly productive land resource to undertake a range of horticulture uses;

c) enable a suitable building platform for a future residential unit; and
d) ensure there is provision of appropriate onsite infrastructure.

HZ-P6 - Encourage the amalgamation or boundary adjustments of Horticulture zoned land where this will help to make horticultural activities more viable on the land

HZ – O7 - Manage land use and subdivision to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:
a) whether the proposal will increase production potential in the zone;
b) whether the activity relies on the productive nature of the soil;
c) consistency with the scale and character of the rural environment;
d) location, scale and design of buildings or structures;
e) for subdivision or non-primary production activities:
i. scale and compatibility with rural activities;
ii. potential reverse sensitivity effects on primary production activities and existing infrastructure;
iii. the potential for loss of highly productive land, land sterilisation or fragmentation
f) at zone interfaces:
i. any setbacks, fencing, screening or landscaping required to address potential conflicts;
ii. the extent to which adverse effects on adjoining or surrounding sites are mitigated and internalised within the site as far as practicable;
g) the capacity of the site to cater for on-site infrastructure associated with the proposed activity, including whether the site has access to a water source such as an irrigation network supply, dam or aquifer;
h) the adequacy of roading infrastructure to service the proposed activity;
i. Any adverse effects on historic heritage and cultural values, natural features and landscapes or indigenous biodiversity;
i) Any historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P

8.15.7. The site has been identified as a Horticulture zone under the Proposed District Plan.

8.15.8. The proposal is for a second dwelling on the site in reasonable proximity to the existing built development within the site. As mentioned throughout this report the proposal will not result in loss of Highly Productive Land as the site is already developed for rural lifestyle activities and the productive capacity of the site was compromised prior to the rezoning of the site. Given the size of the allotment, the existing development on the site as well as areas set aside under QEII, the proposed development has a functional need to be located on the site.

8.15.9. HZ-P3 Not relevant.

8.15.10. There are no known horticultural activities in close proximity to the site. The proposal is not objectional to the surrounding environment.

8.15.11. HZ-P5 Not relevant.

8.15.12. The proposal does not result in the loss of highly productive land, nor will it exacerbate natural hazards, as the site is not known to contain any areas prone to natural hazards. The site contains existing infrastructure. The proposal is consistent with the surrounding environment. The site has no known historical, spiritual, or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.

Summary

8.15.13. The above assessment of the relevant policy documents demonstrates that the proposal will be consistent with the relevant objectives and policies of those statutory documents.

9. Notification Assessment – Sections 95A to 95G of the Act

Public Notification Assessment

9.1. Section 95A requires a council to follow specific steps to determine whether to publicly notify an application. The following is an assessment of the application against these steps:

Step 1 Mandatory public notification in certain circumstances

An application must be publicly notified if, under section 95A(3), it meets any of the following criteria:
(a) the applicant has requested that the application be publicly notified:
(b) public notification is required under section 95C:
(c) the application is made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act 1977.

9.1.1. It is not requested the application be publicly notified and the application is not made jointly with an application to exchange reserve land. Therefore Step 1 does not apply and Step 2 must be considered.

Step 2: Public Notification precluded in certain circumstances.

(4) Determine whether the application meets either of the criteria set out in subsection (5) and,—
(a) if the answer is yes, go to step 4 (step 3 does not apply); and
(b)if the answer is no, go to step 3.
(5) The criteria for step 2 are as follows:
(a) the application is for a resource consent for 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes public notification:
(b)the application is for a resource consent for 1 or more of the following, but no other, activities:
(i)a controlled activity:
(ii)[Repealed]

(iii) a restricted discretionary, discretionary, or non-complying activity, but only if the activity is a boundary activity.
(iv)[Repealed]
(6)[Repealed]

9.1.2. Public Notification is not precluded as the proposal is a Restricted Discretionary Activity and includes activities other than a boundary activity. Therefore Step 3 must be considered.

Step 3: Public Notification required in certain circumstances.

(7) Determine whether the application meets either of the criteria set out in subsection (8) and,—
(a)if the answer is yes, publicly notify the application; and
(b)if the answer is no, go to step 4.
(8)The criteria for step 3 are as follows:
(a)the application is for a resource consent for 1 or more activities, and any of those activities is subject to a rule or national environmental standard that requires public notification:
(b)the consent authority decides, in accordance with section 95D, that the activity will have or is likely to have adverse effects on the environment that are more than minor.

9.1.3. The proposal is not subject to a rule or NES requiring public notification and the proposal does not have effects that will be more than minor. Therefore, Public Notification is not required, and Step 4 must be considered.

Step 4: Public notification in special circumstances

9.1.4. Section 95A(9) states that a council must publicly notify an application for resource consent if it considers that 'special circumstances' exist, notwithstanding that Steps 1 – 3 above do not require or preclude public notification. Special circumstances are not defined in the Act.

9.1.5. There are no special circumstances that exist to justify public notification of the application because the proposal is not considered to be controversial or of significant public interest, particularly given that it is private land and the proposal will result in a second dwelling on the site, which is considered as neither exceptional nor unusual.

Public Notification Summary

9.1.6. From the assessment above it is considered that the application does not need to be publicly notified, but an assessment of limited notification is required.

Limited Notification Assessment

9.2. If the application is not publicly notified, a consent authority must follow the steps of section 95B to determine whether to give limited notification of an application.

Step 1: Certain affected groups and affected persons must be notified.

(2) Determine whether there are any—

(a) affected protected customary rights groups; or
(b)affected customary marine title groups (in the case of an application for a resource consent for an accommodated activity).
(3) Determine—
(a)whether the proposed activity is on or adjacent to, or may affect, land that is the subject of a statutory acknowledgement made in accordance with an Act specified in Schedule 11; and
(b)whether the person to whom the statutory acknowledgement is made is an affected person under section 95E.
(4) Notify the application to each affected group identified under subsection (2) and each affected person identified under subsection (3).

9.2.1. There are no protected customary rights groups or customary marine title groups or statutory acknowledgement areas that are relevant to this application. Therefore Step 1 does not apply and Step 2 must be considered.

Step 2: Limited notification precluded in certain circumstances.

(5) Determine whether the application meets either of the criteria set out in subsection (6) and,—
(a)if the answer is yes, go to step 4 (step 3 does not apply); and
(b)if the answer is no, go to step 3.
(6) The criteria for step 2 are as follows:
(a)the application is for a resource consent for 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes limited notification:
(b) the application is for a controlled activity (but no other activities) that requires a resource consent under a district plan (other than a subdivision of land).

9.2.2. There is no rule in the plan or national environmental standard that precludes notification. The application is not for a controlled activity. Therefore Step 2 does not apply and Step 3 must be considered.

Step 3: Certain other affected persons must be notified.

(7) In the case of a boundary activity, determine in accordance with section 95E whether an owner of an allotment with an infringed boundary is an affected person.
(8) In the case of any other activity, determine whether a person is an affected person in accordance with section 95E.
(9) Notify each affected person identified under subsections (7) and (8) of the application.

9.2.3. The proposal does not include a boundary activity.

In deciding who is an affected person under section 95E, a council under section 95E(2):

(2) The consent authority, in assessing an activity's adverse effects on a person for the purpose of this section,—
(a) may disregard an adverse effect of the activity on the person if a rule or a national environmental standard permits an activity with that effect; and
(b) must, if the activity is a controlled activity or a restricted discretionary activity, disregard an adverse effect of the activity on the person if the effect does not relate to a matter for which a rule or a national environmental standard reserves control or restricts discretion; and

(c) must have regard to every relevant statutory acknowledgement made in accordance with an Act specified in Schedule 11.

9.2.4. A council must not consider that a person is affected if they have given their written approval, or it is unreasonable in the circumstances to seek that person's approval. In the case of this application no persons have given written approval to this development.

9.2.5. With respect to section 95B(8) and section 95E, the permitted baseline was considered as part of the assessment of environmental effects undertaken in Section 7 of this report, which found that the potential adverse effects on the environment will be less than minor. In regard to effects on persons, the assessment in Sections 6, 7 & 8 are also relied on and the following comments made:

- The proposed works are consistent with other development in the area.
- The proposal complements the existing activities on site.
- The proposal is not considered to be contrary to the objectives and policies under the District Plan and Regional Policy Statement.
- The proposal is not considered to have any adverse effects within the site nor on any adjoining sites.
- All other persons are sufficiently separated from the proposed development and works, such that there will be no effects on these people.

9.2.6. Therefore, no persons will be affected to a minor or more than minor degree.

9.2.7. Overall, the adverse effects on any persons are considered to be no more than minor. Therefore Step 3 does not apply and Step 4 must be considered.

Step 4: Further notification in special circumstances

(10) whether special circumstances exist in relation to the application that warrant notification of the application to any other persons not already determined to be eligible for limited notification under this section (excluding persons assessed under section 95E as not being affected persons),

9.2.8. The proposal is to establish a second dwelling on the site. It is considered that no special circumstances exist in relation to the application.

Limited Notification Assessment Summary

9.2.9. Overall, from the assessment undertaken Steps 1 to 4 do not apply and there are no affected persons.

10. Part 2 Assessment

11.1. The application must be considered in relation to the purpose and principles of the Resource Management Act 1991 which are contained in Section 5 to 8 of the Act inclusive.

11.2. The proposal will meet Section 5 of the RMA as the proposal will sustain the potential of natural and physical resources whilst meeting the foreseeable needs of future generations as the site is being used for its intended use. In addition, the proposal will avoid adverse effects on the environment and will maintain the character of the site and surrounding environment.

11.3. Section 6 of the Act sets out a number of matters of national importance. The subject site is not located within the coastal environment under the RPS. The existing indigenous vegetation within the site will remain unaffected by the proposal. Public access is not considered relevant to this application, as the proposal does not impact the existing marginal strip. The proposal has taken into account the relationship of Māori and their culture and traditions. The subject site is not known to contain any archaeological sites. The proposal is not considered to exacerbate natural hazards.

11.4. Section 7 identifies a number of "other matters" to be given particular regard by a Council in the consideration of any assessment for resource consent, including the maintenance and enhancement of amenity values. The proposal maintains amenity values in the area as the proposal is in keeping with the existing character of the surrounding environment. The proposal also maintains and enhances the quality of the environment.

11.5. Section 8 requires Council to take into account the principals of the Treaty of Waitangi. It is considered that the proposal raises no Treaty issues. The subject site is not located within an area of significance to Māori. The proposal has taken into account the principals of the Treaty of Waitangi and is not considered to be contrary to these principals.

11.6. Overall, the application is considered to be consistent with the relevant provisions of Part 2 of the Act, as expressed through the objectives, policies and rules reviewed in earlier sections of this application. Given that consistency, we conclude that the proposal achieves the purposes of sustainable management set out by section 5 of the Act.

11. Conclusion

12.1. This application includes provision for a second dwelling on the site. The existing crossing place servicing the site will be utilised. It is proposed to be upgraded to the required standard as a result of this proposal.

12.2. The proposed development is considered consistent with the surrounding environment. Adequate setback distances have been provided, and all stormwater and wastewater will be adequately managed and are considered to have less than minor effects.

12.3. No significant adverse effects are anticipated to arise from the activity included in the application and no consideration of alternatives has been undertaken. All effects of the activity are being managed within the property boundaries. Overall, it is considered that the proposal will result in no more than minor effects on the environment.

12.4. In terms of section 104(1)(a) of the Act, the actual and potential effects of the proposal will be less than minor. The relevant provisions within Part 2 of the Act have been addressed as part of this application. The overall conclusion from the assessment of the statutory considerations is that the proposal is considered to be consistent with the sustainable management purpose of the Resource Management Act 1991.

12.5. It is also considered that the proposal will have less than minor adverse effects on the wider environment; no persons will be adversely affected by the proposal and there are no special circumstances.

12.6. In terms of section 104(1)(b) of the Act, the proposal is found to be generally consistent with the objectives, policies and assessment criteria of the relevant statutory documents as set out in this report.

12.7. As a Restricted Discretionary Activity, the application has been assessed under the matters specified under Section 104 and 104C of the Resource Management Act 1991. It is considered that the proposal results in no more than minor effects on the environment. It is considered appropriate for consent to be granted on a non-notified basis, subject to fair and reasonable conditions.

12. Limitations

13.1. This report has been commissioned solely for the benefit of our client, in relation to the project as described above, and to the limits of our engagement, with the exception that the Far North District Council or Northland Regional Council may rely on it to the extent of its appropriateness, conditions and limitations, when issuing their subject consent.

13.2. Copyright of Intellectual Property remains with Northland Planning and Development 2020 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 information contained within this report.

13.3. 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.

13.4. 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.

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **247277**

Land Registration District **North Auckland**

Date Issued 04 May 2006

Prior References
NA121C/438

Estate Fee Simple

Area 9.4240 hectares more or less

Legal Description Lot 3 Deposited Plan 360829

Registered Owners

Peter Anthony Mills as to a 1/2 share

Pauline Anne Mills as to a 1/2 share

Interests

Subject to Section 8 Mining Act 1971

Subject to Section 168A Coal Mines Act 1925

Appurtenant hereto is a water supply right specified in Easement Certificate B993566.8 - 19.5.1989 at 9.27 am

The easements specified in Easement Certificate B993566.8 are subject to Section 309 (1) (a) Local Government Act 1974

Appurtenant hereto is a right of way and telecommunications, electricity & water supply rights specified in Easement Certificate D332524.4 - 20.11.1998 at 2.30 pm

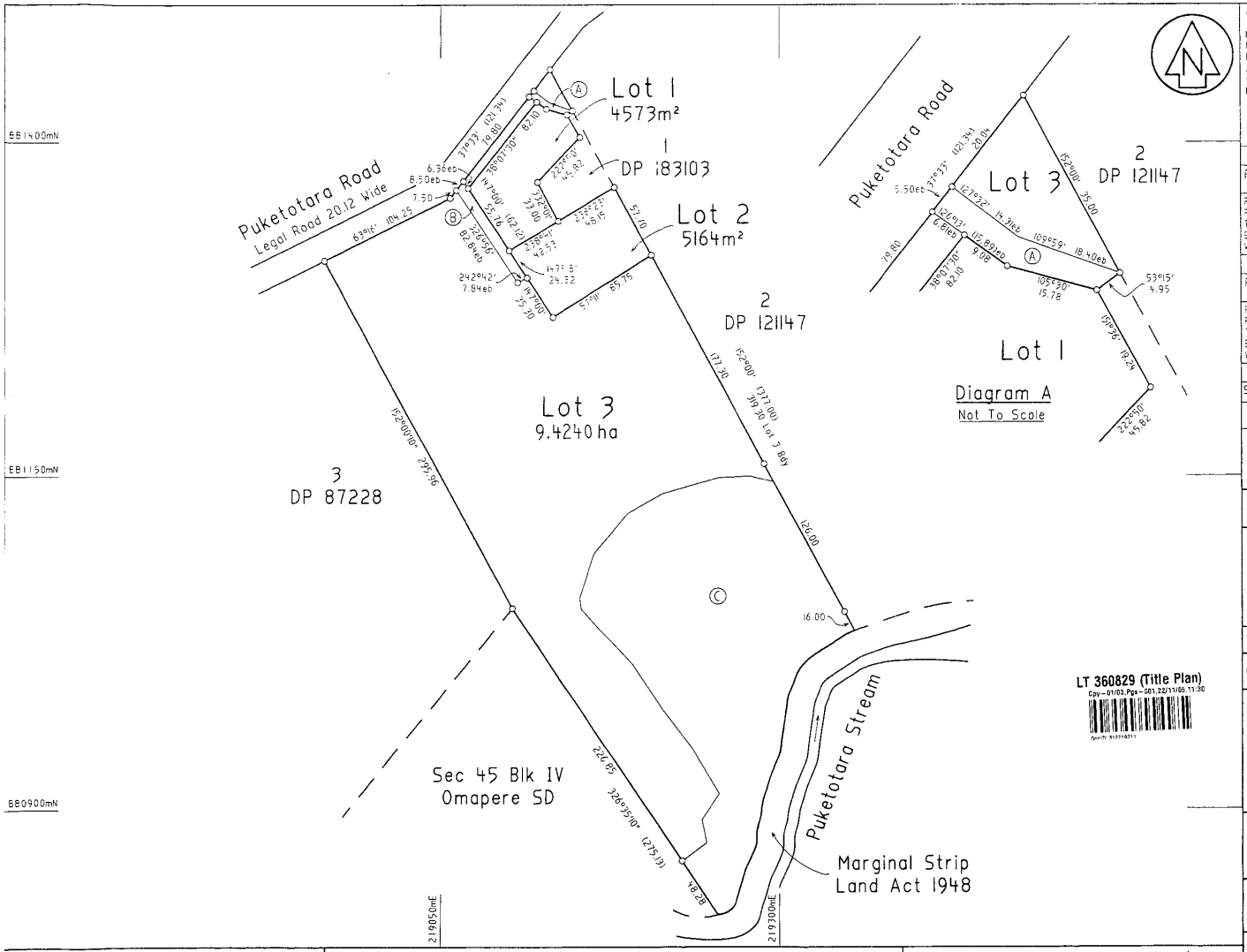
The easements specified in Easement Certificate D332524.4 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right of way and to telecommunications, electricity & water supply rights over part marked A on DP 360829 specified in Easement Certificate D332524.4 - 20.11.1998 at 2.30 pm

5603619.1 Open Space Covenant pursuant to Section 22 Queen Elizabeth the Second National Trust Act 1977 - 29.5.2003 at 9:00 am.

Subject to a right of way, right to convey telecommunications, electricity and water over part marked B on DP 360829 created by Easement Instrument 6851155.4 - 4.5.2006 at 9:00 am

The easements created by Easement Instrument 6851155.4 are subject to Section 243 (a) Resource Management Act 1991



Approvals

I hereby certify that this plan was approved by the Far North District Council pursuant to Section 223 of the Resource Management Act 1991 on the 18th day of October 2005 subject to the granting or reserving of easements set out in the Memorandum hereon.

P.J. Killalea
Authorised Officer

Existing Easement

Purpose	Shown	Servient Tenement	Created By
Right of Way Right to Convey Telecommunications, Electricity & Water	(A)	Lot 3 Hereon	D332524.4

Memorandum of Easement

Purpose	Shown	Servient Tenement	Dominant Tenement
Right of Way Right to Convey Telecommunications, Electricity & Water	(B)	Lot 3 Hereon	Lots 1 & 2 Hereon

Existing QE II Open Space Covenant Schedule

Shown	Description	Area
(C)	Pt Lot 3 Hereon	3.1800ha

Class II Survey: Lots 1 & 2
Class III Survey: Lot 3

New CsT Allocated

Lot 1 247275
Lot 2 247276
Lot 3 247277

Total Area: 10.3977 ha

Comprised in: CT 121C/438 All

I Barry Boon Leong Kam of Kerikeri, being a person entitled to practise as a licensed cadastral surveyor, certify that -
a) The Surveys to which this dataset relates are accurate, and were undertaken by me or under my direction in accordance with the Cadastral Survey Act 2002 and the Surveyor-General's Rules for Cadastral Survey 2002/2:
(b) This dataset is accurate, and has been created in accordance with that Act and those Rules

Signature ..... Date 21/11/05

Field Book ..... p ..... Traverse Book ..... p .....
Reference Plans DP 87277, DP 95837, DP 121147, DP 183103, DP 193575, DP 319627, DP 324252 & SO 50962
Examined ..... Correct .....

Approved as to survey by Land Information NZ on
8/12/2005

Deposited by Land Information NZ on
4/8/2006

File: 20169 - Cornelius
Received 22 NOV 2005
Instructions

Approved LM 08/02

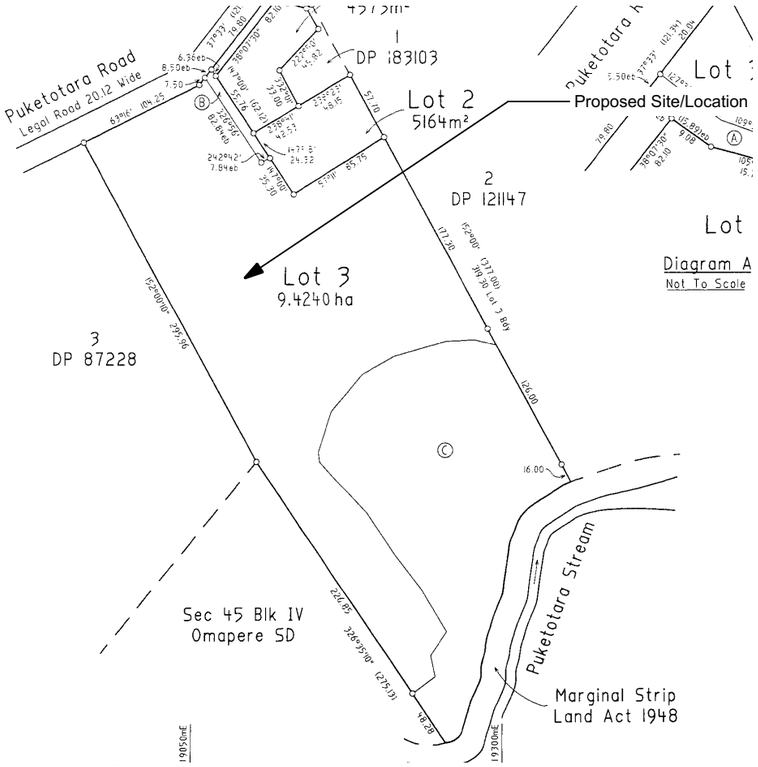
LT 360829 (Title Plan)
Cpy - 01/03, Pgs - 001, 22/11/05, 11:30

LAND DISTRICT: NORTH AUCKLAND

Lots 1 - 3 Being Subdivision of Lot 1 DP 193575

LOCAL AUTHORITY: Far North District
Surveyed by: Williams & King
Scale: 1 : 2000 Date: September 2005

DP 360829



Certificate of Title Plan

Relocating top floor only

Existing House Photo

Sheet Index	
Layout ID	**Layout Name**
01	Cover Page
02	Location Plan and Notes
03	Site Plan
03a	Overall Site Plan
04	Proposed Floor Plan
04a	Existing Floor Plan
05	Elevations
06	Elevations
07	Foundation Plan
08	Plumbing Plan
09	Section AA
10	Section BB
11	Details 1
12	Details 2
13	Details 3

JOHNSON BRIERLEY
ARCHITECTURE LTD

Proposed Relocation
for
Peter and Pauline Mills
at
519 Puketotara Rd
Waipapa 0295

GENERAL NOTES

DO NOT SCALE

CONTRACTOR TO VERIFY AND CHECK ALL DIMENSIONS AND LEVELS ON SITE PRIOR TO COMMENCING CONSTRUCTION OR FABRICATION. ANY AMBIGUITIES TO BE REFERRED TO THE ARCHITECT.

ALL WORK TO COMPLY WITH NZBC

SET ISSUE DATES

DATE	ISSUE
5/11/25	BC Issue

REVISIONS

REV	DATE	DESCRIPTION

Cover Page

SHEET NO.
01

SCALE As Shown @ A3

PROJECT JBA - 25055

PROJECT NOTES:

GENERAL NOTES

ALL CONSTRUCTION SHALL COMPLY WITH NZBC E2/AS1, NZS3604:2011 INCLUDING PROPRIETARY SPECIFICATIONS / DETAILS INCLUDED IN THE PLANS AND SPECIFICATIONS.
ALL WORK TO COMPLY WITH THE NEW ZEALAND BUILDING CODE, TERRITORIAL AUTHORITY AND RELEVANT BUILDING STANDARDS
ALL ACCOMPANYING DOCUMENTATION SHALL BE READ & UNDERSTOOD IN CONJUNCTION WITH THESE ARCHITECTURAL DRAWINGS.
ALL DIMENSIONS SHALL BE VERIFIED WHEN SETTING OUT WORK BEFORE COMMENCING CONSTRUCTION.
ANY VARIATIONS FROM THESE DRAWINGS & DOCUMENTS SHALL BE DISCUSSED WITH THE JB ARCH PRIOR TO ANY CHANGES ON SITE. AMENDMENTS AND OR MINOR VARIATIONS MAY BE REQUIRED. NO PRODUCT SUBSTITUTION WITHOUT JB ARCH'S APPROVAL
ALL PRODUCTS MUST BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS
CHECK AND COMPLY WITH ANY RESOURCE CONSENT AND/OR COUNCIL REQUIREMENTS AS REQUIRED

ONSITE SERVICES

THE OWNER IS RESPONSIBLE FOR HAVING ALL EXISTING ON SITE SERVICES LOCATED ON SITE AND ESPECIALLY IN THE PROPOSED BUILDING AREA

NETWORK SERVICES

THE OWNER IS TO ARRANGE ALL NETWORK OPERATORS TO DISCONNECT SERVICES AND REMOVE FITTINGS AND EQUIPMENT AS NECESSARY.

SITE SAFETY

PREVENT ACCESS BY UNAUTHORISED PERSONS (IE SITE FENCING). ILLUMINATE AND PROTECT ALL HOLES, UNSAFE BUILDINGS AND HAZARDS. LEAVE THE SITE AND BUILDINGS SAFE AT THE CLOSE OF EACH DAYS WORK.

ITEMS FOR SALVAGE OR RE-USE

CAREFULLY REMOVE/DISMANTLE AND STORE SAFELY ALL ITEMS TO BE SALVAGED; FOR REMOVAL, USE ON SITE OR UNTIL COMPLETION OF THE WORKS.

DEMOLITION WORK

CARRY OUT DEMOLITION ONLY UNDER THE SUPERVISION OF A SUITABLY EXPERIENCED PERSON AND USING ONLY EXPERIENCED OPERATORS AND DRIVERS. OBTAIN AND PAY FOR ANY REQUIRED INSPECTION WHICH ARE ADDITIONAL TO THE BUILDING CONSENT. TAKE ALL PRECAUTIONS NECESSARY TO MINIMISE NUISANCE CAUSED BY DUST, DIRT, RUBBISH AND WATER.

FOUNDATIONS

THE FOUNDATIONS FOR THE BUILDING ARE TO BE SUPPORTED ON GOOD GROUND WITH AN ULTIMATE BEARING CAPACITY OF 300KPA.

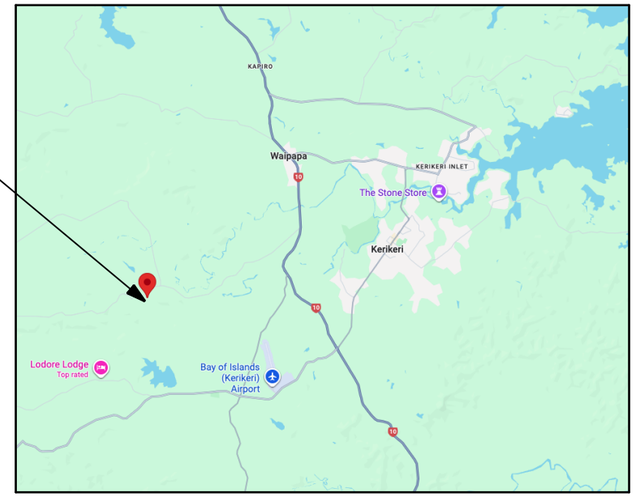
SITE PREPARATION

BEFORE A BUILDING IS ERECTED ON ANY SITE, ALL RUBBISH, NOXIOUS AND ORGANIC MATTER SHALL BE REMOVED FROM THE AREA TO BE COVERED BY THE BUILDING

BOUNDARY SET OUT

THE OWNER IS RESPONSIBLE TO CLEARLY MARK OUT ALL SITE BOUNDARIES PRIOR TO COMMENCEMENT OF WORK. HAVE A REGISTERED SURVEYOR LOCATE THE POSITION AND FFL OF THE BUILDING WORK IF NECESSARY

519 Puketotara Road, Waipapa 0295



Location Plan

JOHNSON BRIERLEY
ARCHITECTURE LTD

Proposed Relocation
for
Peter and Pauline Mills
at
519 Puketotara Rd
Waipapa 0295

GENERAL NOTES

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SET ISSUE DATES

DATE	ISSUE
5/11/25	BC Issue

REVISIONS

REV	DATE	DESCRIPTION

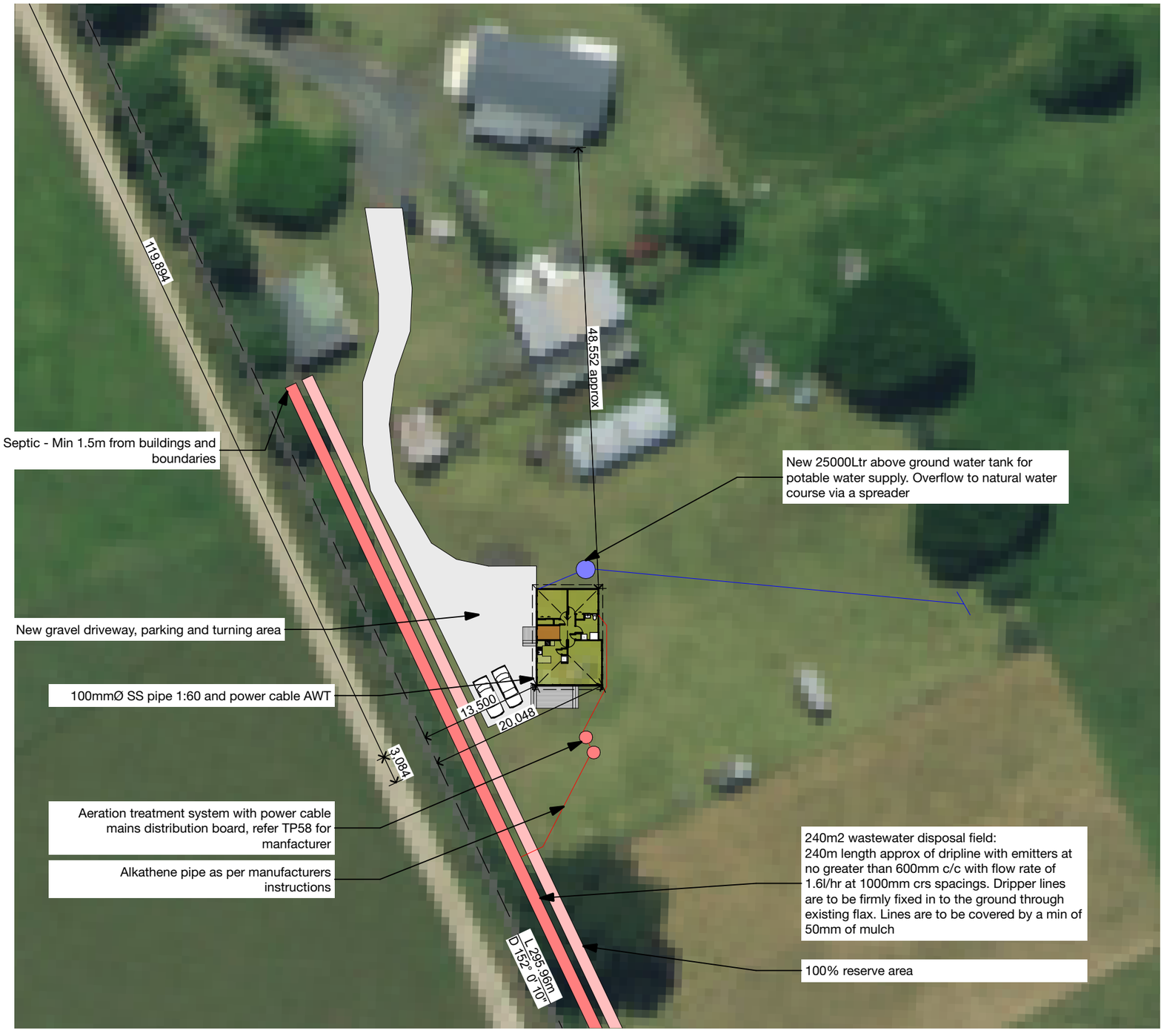
Location Plan and Notes

SHEET NO.

02

SCALE As Shown @ A3

PROJECT JBA - 25055



N

Existing Site
Address: 2/7 Waterloo Rd, Milford
Earthquake Zone: Zone 1
Corrosion Zone: Zone C
Climate Zone: 1
Wind Region: A
Lee Zone:
Rainfall Intensity (range): 80-90
Wind Zone (BRANZmaps): Medium

Proposed Site
Legal Description: Lot 3 Deposited Plan 360829
Address: 519 Puketotora Rd, Waipapa
Area: 9.4240Ha
Earthquake Zone: Zone 1
Corrosion Zone: Zone C
Climate Zone: 1
Wind Region: A
Lee Zone:
Rainfall Intensity (range): 90-100
Wind Zone (BRANZmaps): High where house to be sited

Site Information
Council:
Far North District Council
Zone:
Rural Production Zone

Planning Rules
Max Height: 12.0m max = OK
HIRB: 2m +45° = OK
Building Coverage: Max 12.5% = OK
Max Impermeable: Max 15% = OK
Yards: = 10m min = OK

1	Site Plan - Close Up
-	1:500

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SET ISSUE DATES

DATE	ISSUE
5/11/25	BC Issue

REVISIONS

REV	DATE	DESCRIPTION

Site Plan
SHEET NO.
03
SCALE As Shown @ A3
PROJECT JBA - 25055

N

1
-

Overall Site Plan
1:3000

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Proposed Relocation
for
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GENERAL NOTES

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ALL WORK TO COMPLY WITH NZBC

SET ISSUE DATES

DATE	ISSUE
5/11/25	BC Issue

REVISIONS

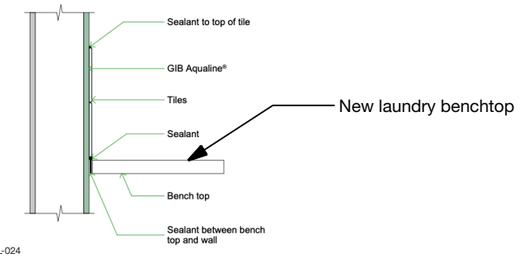
REV	DATE	DESCRIPTION

Overall Site Plan

SHEET NO.
03a

SCALE As Shown @ A3
PROJECT JBA - 25055

A: BENCH TOP LINING JUNCTION



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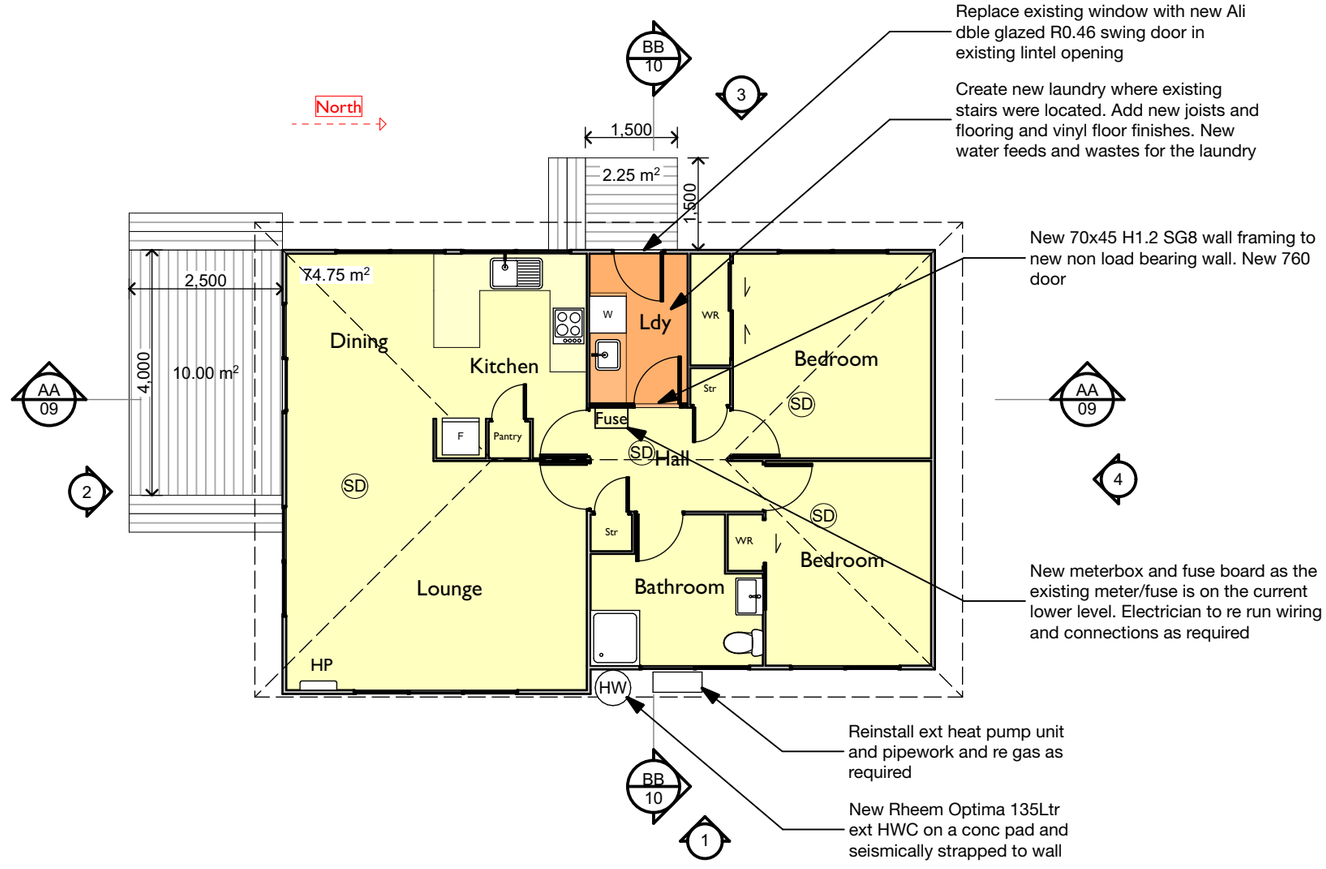

1 - Proposed Floor Plan
1:100

Safety glass
All glazing meeting the following requirements must be grade A safety glass sized in accordance with NZS 4223.3:2016:
- Hinged door with panels of area > 0.5m²
- Side panel with width > 500mm and < 500mm above FL
- Side panel with width > 1000mm
- Bathroom glazing < 1500mm above FL except where glazing is located above a vanity or bench of 700mm min. height and 300mm min. width

Smoke alarms (SD)
"Type 1" Interconnected smoke alarm with hush and test button to be installed
Comply with NZS4514:2021
The locations for smoke alarms shall be:
a) Smoke alarms shall be located on or near ceiling
b) Smoke alarms shall be located in all bedrooms, living spaces, hallways and landings within the building
c) Where a kitchen is separated from the living space by doors that can be closed, an alarm specified by its manufacturer as suitable for a kitchen shall be located in the kitchen. This may be a heat alarm to avoid nuisance activations
d) In a multi-level household unit, there shall be at least one smoke alarm on each level
e)Where more than one smoke alarm is needed to meet the requirements of this standard, these smoke alarms shall be all interconnected so that when one activates, all smoke alarms devices in the household will sound

Insulation:
Walls: Existing = Nil Lockwood
Roof: Existing = Unknown existing
Underfloor: New R2.5 Expol

Deck surface
Deck surfaces that provide the main access to a building shall have a slip resistance not less than 0.4 when wet.
Stairs to have clear coating with grit added to meet dry and wet slip resistance requirements in NZBC

2nd hand building report
Refer to the 2nd hand building report
- Contractor to check all weatherboards and joinery and repair and/or replace any damaged or decayed timber. Prep and repaint as required

Wall Bracing
No upgrade proposed as the dwelling is Lockwood construction

Wet Area Floors
Existing wet area have vinyl finish. New laundry to have new vinyl to match as best as possible

JOHNSON BRIERLEY ARCHITECTURE LTD

Proposed Relocation
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Waipapa 0295

GENERAL NOTES
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ALL WORK TO COMPLY WITH NZBC

SET ISSUE DATES

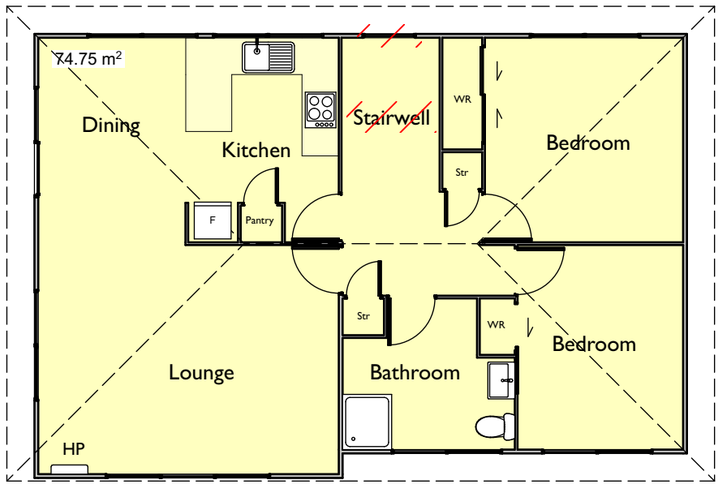
DATE	ISSUE
5/11/25	BC Issue

REVISIONS

REV	DATE	DESCRIPTION

Proposed Floor Plan
SHEET NO. 04
SCALE As Shown @ A3
PROJECT JBA - 25055

= demolished or altered



1	Existing Floor Plan
-	1:100

JOHNSON BRIERLEY
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Proposed Relocation
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GENERAL NOTES

DO NOT SCALE

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SET ISSUE DATES

DATE	ISSUE
5/11/25	BC Issue

REVISIONS

REV	DATE	DESCRIPTION

Existing Floor Plan

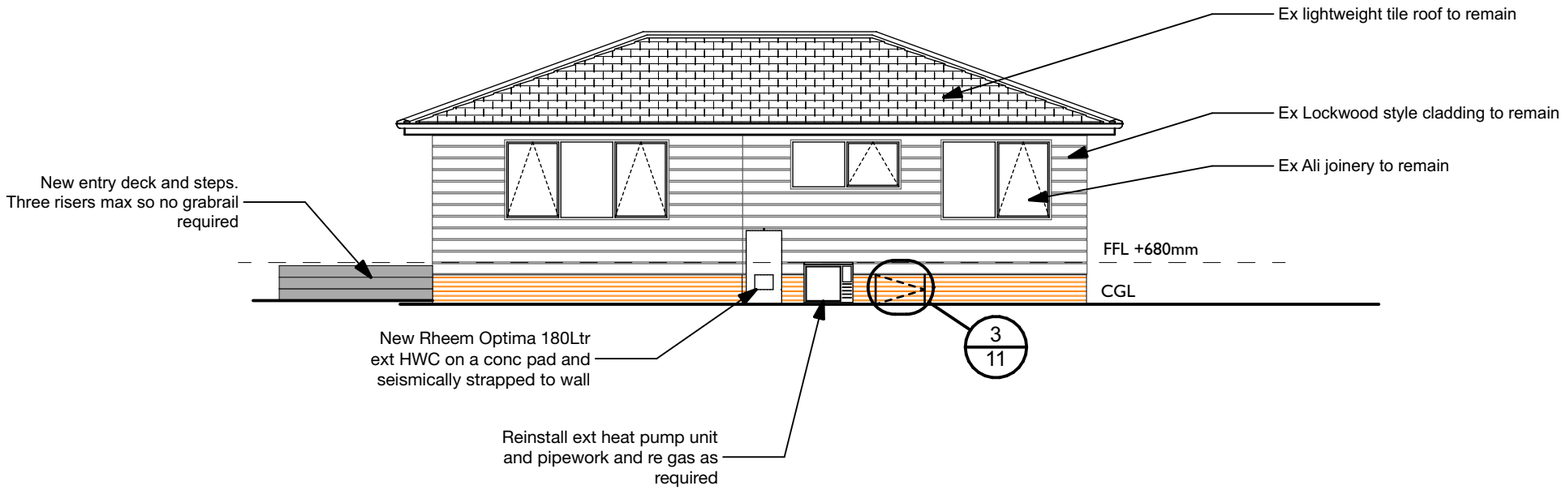
SHEET NO.

04a

SCALE As Shown @ A3

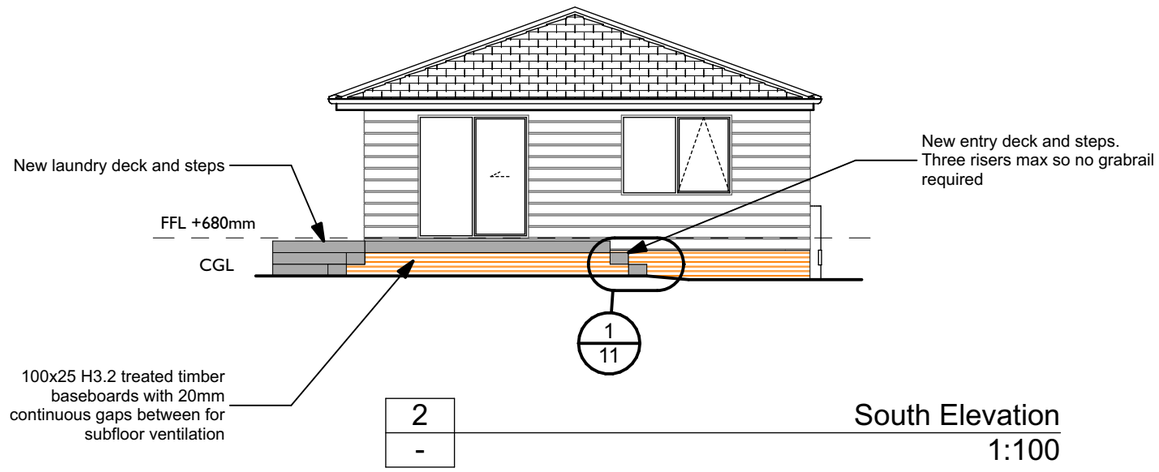
PROJECT JBA - 25055

BUILDING ENVELOPE RISK MATRIX		
ALL ELEVATIONS		
Risk Factor	**Risk Severity**	**Risk Score**
Wind zone (per NZS 3604)	High risk	1
Number of storeys	Low risk	0
Roof/wall intersection design	Medium risk	1
Eaves width	Very high risk	5
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		**7**



1 / -

East Elevation
1:100



2 / -

South Elevation
1:100

JOHNSON BRIERLEY
ARCHITECTURE LTD

Proposed Relocation
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GENERAL NOTES

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ALL WORK TO COMPLY WITH NZBC

SET ISSUE DATES

DATE	ISSUE
5/11/25	BC Issue

REVISIONS

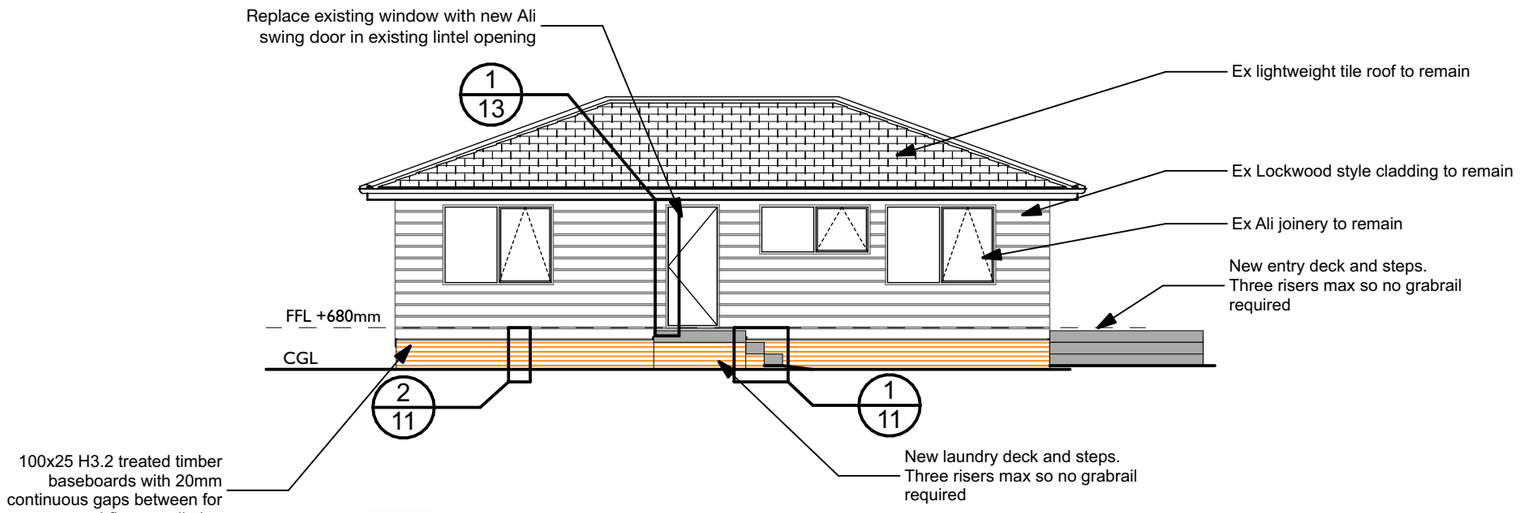
REV	DATE	DESCRIPTION

Elevations

SHEET NO.
05

SCALE As Shown @ A3
PROJECT JBA - 25055

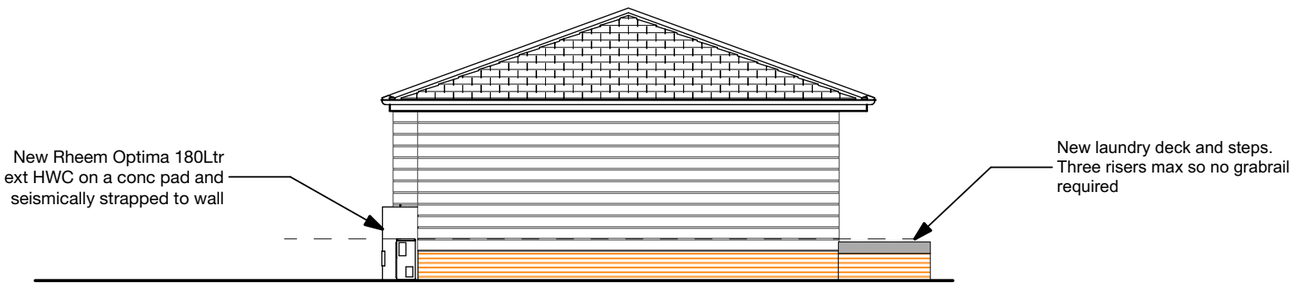
BUILDING ENVELOPE RISK MATRIX		
ALL ELEVATIONS		
Risk Factor	**Risk Severity**	**Risk Score**
Wind zone (per NZS 3604)	High risk	1
Number of storeys	Low risk	0
Roof/wall intersection design	Medium risk	1
Eaves width	Very high risk	5
Envelope complexity	Low risk	0
Deck design	Low risk	0
Total Risk Score:		**7**



3 / -

West Elevation

1:100



4 / -

North Elevation

1:100

JOHNSON BRIERLEY
ARCHITECTURE LTD

Proposed Relocation
for
Peter and Pauline Mills
at
519 Puketotara Rd
Waipapa 0295

GENERAL NOTES

DO NOT SCALE

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SET ISSUE DATES

DATE	ISSUE
5/11/25	BC Issue

REVISIONS

REV	DATE	DESCRIPTION

Elevations

SHEET NO.

06

SCALE As Shown @ A3

PROJECT JBA - 25055

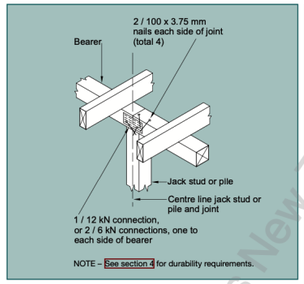

Figure 6.19 – Joins in bearers (see 6.12.7.1 and 6.12.7.2)

Joins in bearers
Bearer joins must be over a pile or support wall. Bearer join locations are unknown and need to be confirmed on site. Joins to comply with NZS3604:2011 6.12.7.
No joins on anchor or braced piles

Floor level and true
When relocating the contractor is to ensure the floor is level and true and any joins to be level and fully supported

New wet area flooring
New floor to be 19mm T&G ply floor CD grade H3.2 CCA with C face upwards

Bolts and coach screws
In bolted joints, washers shall be provided at each timber surface under the bolt or coach screw head and at the nut. For M12 and M16 bolts the washers shall be not less 50x50x3mm if square or not less than 55mm dia. x 3mm if round.

Access to subfloor
Access shall be provided to permit visual inspection of all subfloor framing members. A crawl space for this purpose shall be not less than 450mm high to the underside of the floor joists. A clear horizontal separation of not less than 450mm shall be maintained between the outside of any wall cladding and the adjacent ground. (refer to NZS 3604:2011, Figure 6.21)

Ventilation opening area required
To prevent subfloor dampness, provide subfloor ventilation openings over the whole subfloor area. Ventilation openings shall be not less than 3500mm² per m² of the floor area and distributed around the foundation perimeter.

Ordinary Pile (uncoloured):
- 125x125 timber post or 150mm Small End Diameter (SED) post, cast fully into a 450mm diameter Bored Concrete Pile (BCP).
- BCP shall have a minimum embedment depth of 0.6m below existing ground level, or minimum 0.3m below top soil into competent natural ground, whichever is deeper.
- Minimum 100mm concrete cover below post at bottom.
- Refer to NZS3604:2011 Section 6 for fixing details.

Anchor Pile (coloured in Red):
- 150mm Small End Diameter (SED) timber post cast fully into a 450mm diameter Bored Concrete Pile (BCP). Post shall be placed with the small end up.
- BCP shall have a minimum embedment depth of 1.4m below existing ground level.
- Minimum 100mm concrete cover below post at bottom.
- Lumberlok 12kN top fixing. Refer to NZS3604:2011 Section 6 for other details.

Wilton Joubert Ltd
Job #: 143317
Address: Lot 3, 519 Puketotara Road, Waipapa, Northland
Date: 30 Oct 2025
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By: Wilton Joubert Ltd Ref: 143114 Dated: 24 Oct 2025 Specifically: Design based on uniform Class 'M' expansive soils across building platform with a minimum ultimate bearing capacity of 300kPa, subject to engineer's confirmation.
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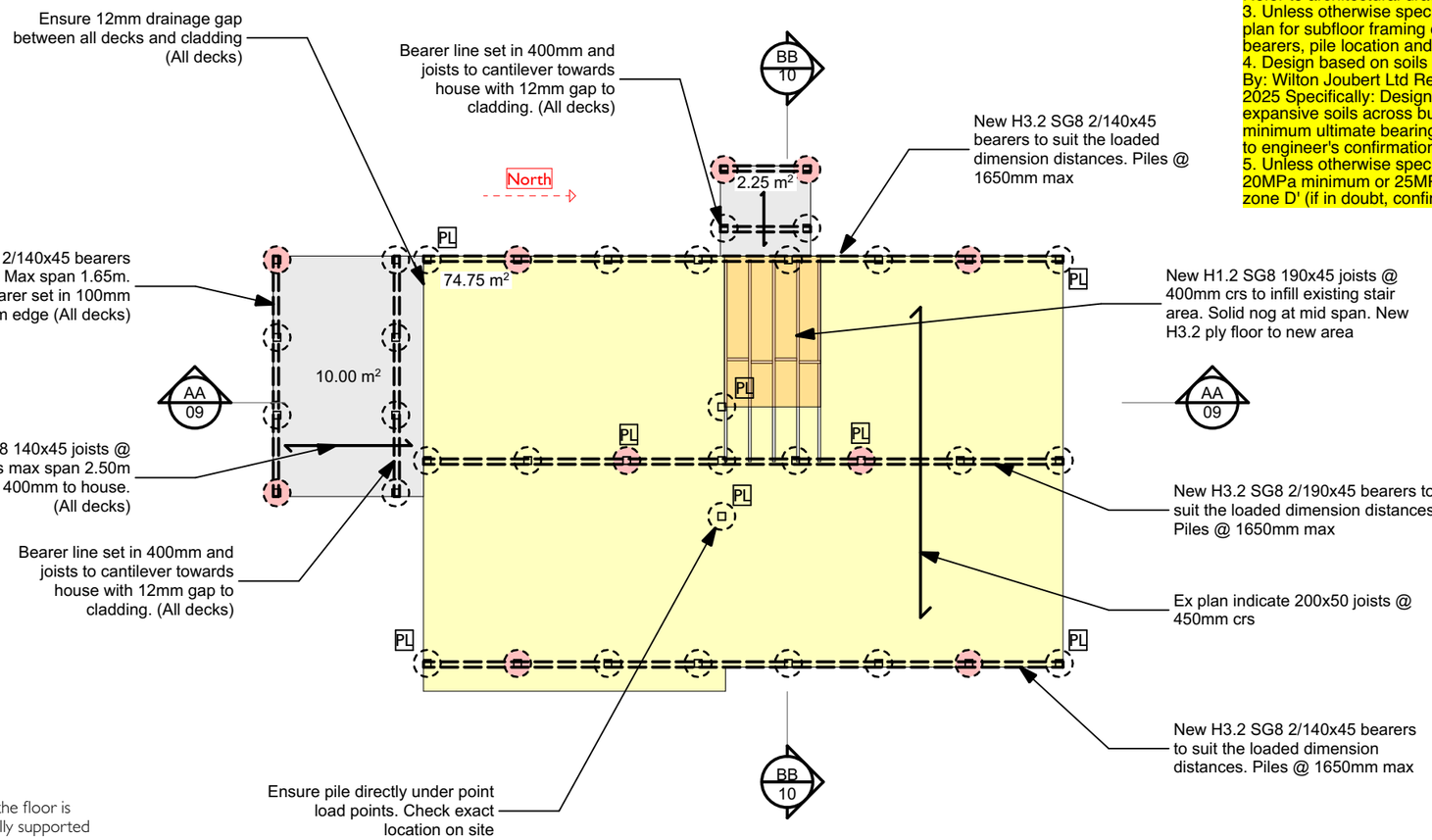
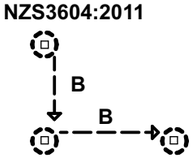


1	Foundation Plan
-	1:100

ANCHOR/BRACED PILES
If height from the cleared ground to underside of bearer is greater than 600mm then replace the proposed anchor pile with 2 braced piles in both directions and as per NZS3604:2011



Braced pile system
A braced pile system consists of 2 piles, each with a 450mm diameter (plan size) footing, between which a diagonal brace is fixed. The brace shall be fixed to the bottom of one braced pile, and either the top of the other braced pile, or to a bearer within 200mm of the other pile, or to a joist within 200mm of the other pile. (refer to NZS 3604:2011, Figure 6.6, 6.7, 6.8). Arrow head on Brace Pile label indicates top of brace, sized as per below

Braces for braced pile system	
Brace size	Max. length
100x75	3.0m
100x100	5.0m

Wire dogs
Wire dogs shall be of steel of at least 4.9mm diameter and shall penetrate 30mm min. into each piece of timber. (NZS 3604:2011, Figure 2.2)

Floor joists
Floor joists shall have a min. bearing on their supports of 32mm. Refer to NZS 3604:2011, Figure 7.1 for lapped or butted joints in floor joists.

Underfloor Insulation
New Expol R2.5 underfloor insulation to entire subfloor.

Height of piles
The height of piles shall be:
(a) Above finished ground level (FGL): not less than 150mm;
(b) Above cleared ground level (CGL): not more than:
(1) 600mm to the highest connection for anchor piles;
(2) 3.0m for timber ordinary piles and braced piles when they directly support bearers.
(c) No timber pile shall be cut off closer than 300mm to finished ground level (FGL). This distance may be reduced to 150mm where a bituminous damp-proof course is placed between the pile and framing timbers and overlaps these timbers by at least 6mm.

DPM
Add DPM to subfloor area over ground

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Foundation Plan
SHEET NO. 07
SCALE As Shown @ A3
PROJECT JBA - 25055

KEY PLAN

IJ	INSPECTION JUNCTION
IB	INSPECTION BEND
nGT	NEW GULLY TRAP
eDP	EXISTING DOWNPIPE
eTV	EXISTING TERMINAL VENT
AAV	AIR ADMITANCE VALVE

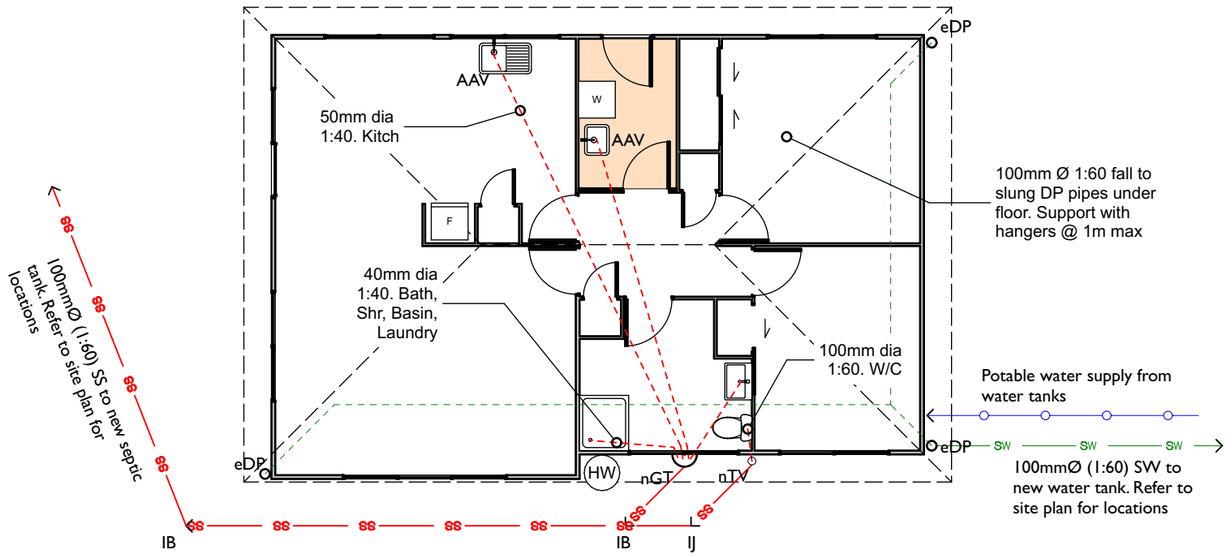
Water Tank for supply
Install water tank(s) with Marley first flush. Install 1 and 20 filtration and UV filtration to ensure potable water for supply.

Air Admittance Valves
Air admittance valves must:
- be used in accordance with the manufacturers instructions
- not be used as main or branch drain vents- these must be open to the air
- only be used on a stack vent that is not acting as a drain vent
- be a min. of 100mm above the weir of any trap they serve
-be installed in an accessible ventilated space protected from vandilism, the sun and freezing
- be fitted in an upright position - they may fail if they are not vertical

Water closet pans
Water closet pans:
- may connect directly to a drain or a discharge stack
- must be vented if discharging to a stack
- may be connected directly to a drain without being vented provided:
- the discharge pipe gradient is 1:60 or more
- the main drain is 1:60 or more
- the length of the discharge pie from tap to drain does not exceed 6m for a 100mm pipe or 1.5m for a 80mm pipe
- discharging to a stack must be vented

Vent pipe
Vent pipes must:
- have a continual rise, with a min. gradient of 1:80 from the point of connection to the discharge pipe to the open air.
- terminate in the open air and be fitted with a device to exclude birds
- terminate a min. of 50mm above the overflow level of the highest fixture which they serve

Downpipes:
All downpipes to be 80mm Ø



Plumbing
Installation of all plumbing systems shall be to manufacturers specifications and in accordance with NZBC, Clause G13 Foulwater - Acceptable solution AS1 Sanitary plumbing

Waste water fixtures
Waste pipes from waste water fixtures must discharge to:
- an external gully trap
- a discharge stack

Soil fixtures
Soil fixtures may discharge:
- directly to a drain
- to a discharge stack

Water traps
Water traps must:
- be located as close as possible to the sanitary fixture they serve
- be removable or be fitted with a cleaning eye

Waste water discharge pipes
Waste water discharge pipes must:
- contain a water seal
- have a 25mm min. depth of water seal
- discharge into a gully trap or discharge stack
- not exceed a developed length of 3.5m without being vented

Table C1. Minimum gradient of discharge pipes:

1:20 for 32mm pipes
1:40 for 65mm diameter and under
1:60 for 100mm diameter and under

Table C2. Discharge units and fixture discharge pipes

Fixture type	Discharge units	Min. discharge pipe size (mm)
b Basin	1	32
B Bath (With or without overhead shower)	4	40
BG Bathroom group (wc pan, bath, shower, bidet, and basin all in one room	6	40
wm Washing Machine	5	40
DW Dish Washer	3	40
KS Kitchen Sink	3	50
t Laundry Tub	5	40
sh Shower	2	40
wc Water closet pan	4	100

Table C3. Discharge unit (DU) loading for stacks and graded discharge stacks

Dia (mm)	Max. discharge from any one floor	Max. loading at base of vertical stack	Max. DUs for a gradient of:				
			1:20	1:30	1:40	1:50	1:60
32	1	1	1				
40	2	6	6	5	4		
50	5	15	15	10	8		
65	6	18	51	29	21		
80	13	40	65	39	27	20	16
100	65	195	376	248	182	142	115

Access points
Access points must be provided so that blockages can be cleared where:
- a soil discharge pipe connects to a stack
- a soil stack connects with a drain
- there are a number of bends and/or junctions likely to cause a blockage
- access to a pipe is otherwise restricted
Access panels to access points should be provided

Vent pipe sizes
Discharge stack vents must not be smaller than given in *Table C4*
Discharge stack vents must not be smaller than the discharge stack they serve

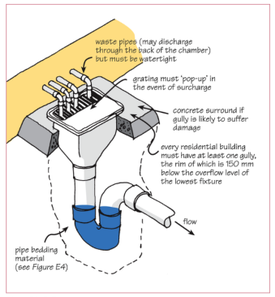


Figure E3. Gully trap.

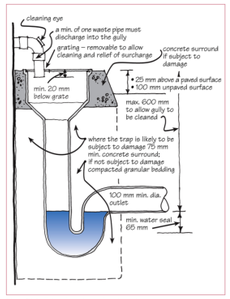


Figure E4. Gully trap dimensions and requirements.

PLUMBING: as per G13-G12

Water Supply:
15&20mm Buteline system in walls for hot & cold supply. Refer Buteline guidelines on diameter to fixtures/feeds

Hotwater Supply:
New Rheem Optima 180Ltr ext HWC on a conc pad and seismically strapped to wall

Stormwater:
DP'S to connect to water tanks and overflow as per site plan

Where any waste pipe to GT exceeds 3.5m install Air Admittance Valve

Notes:
Pipe locations shown are indicative only, plumber to confirm actual location once laid on site

1	Plumbing Plan
-	1:100

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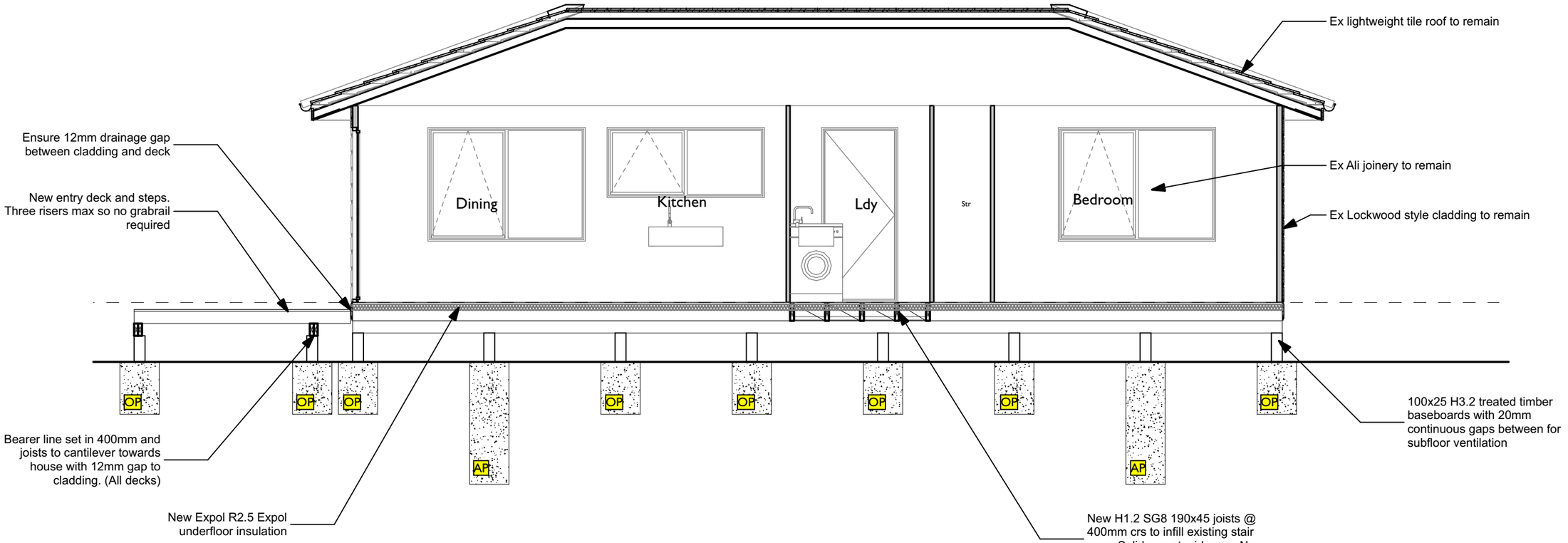
REVISIONS

REV	DATE	DESCRIPTION

Plumbing Plan
SHEET NO.
08
SCALE As Shown @ A3
PROJECT JBA - 25055



AA
-

Section AA
1:50

Wilton Joubert Ltd
Job #: 143317
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Section AA
SHEET NO.
09
SCALE As Shown @ A3
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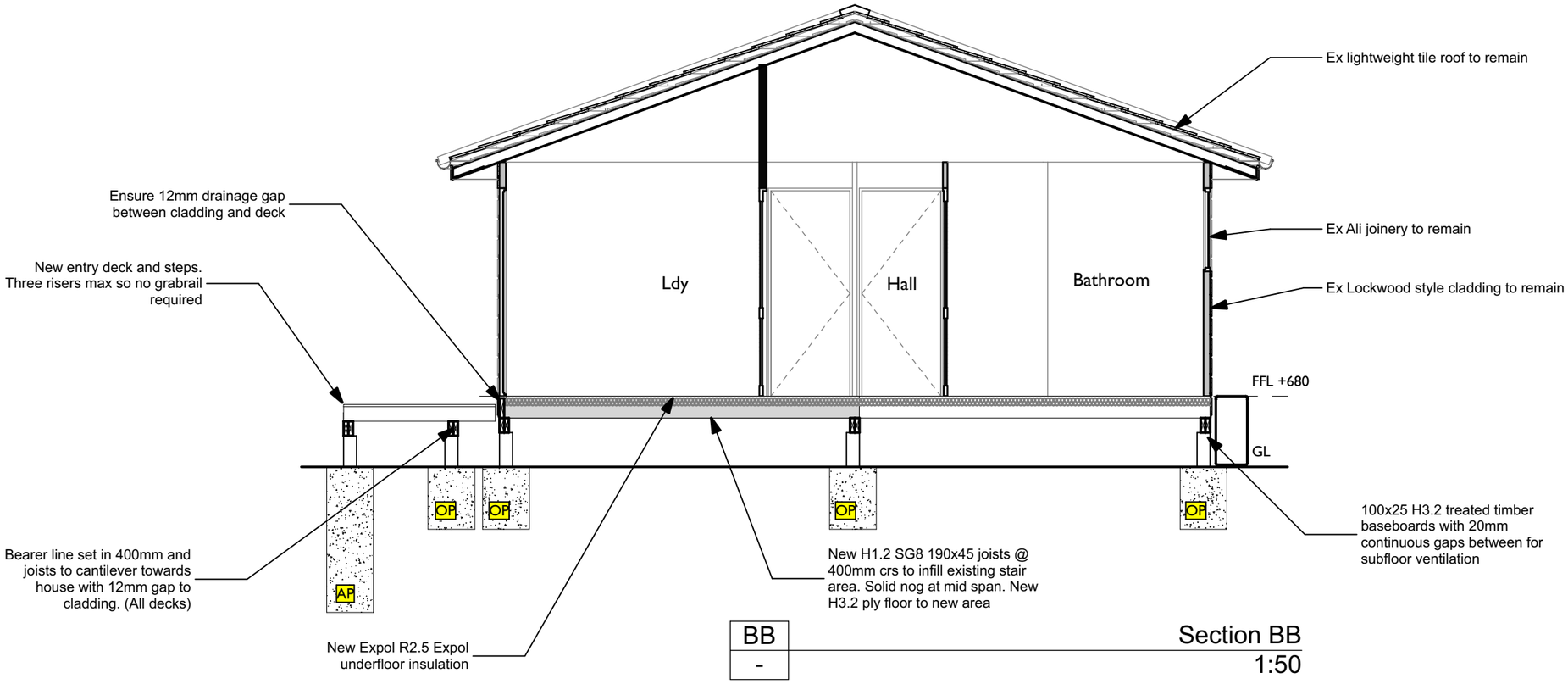

BB	Section BB
-	1:50

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Section BB

SHEET NO.
10

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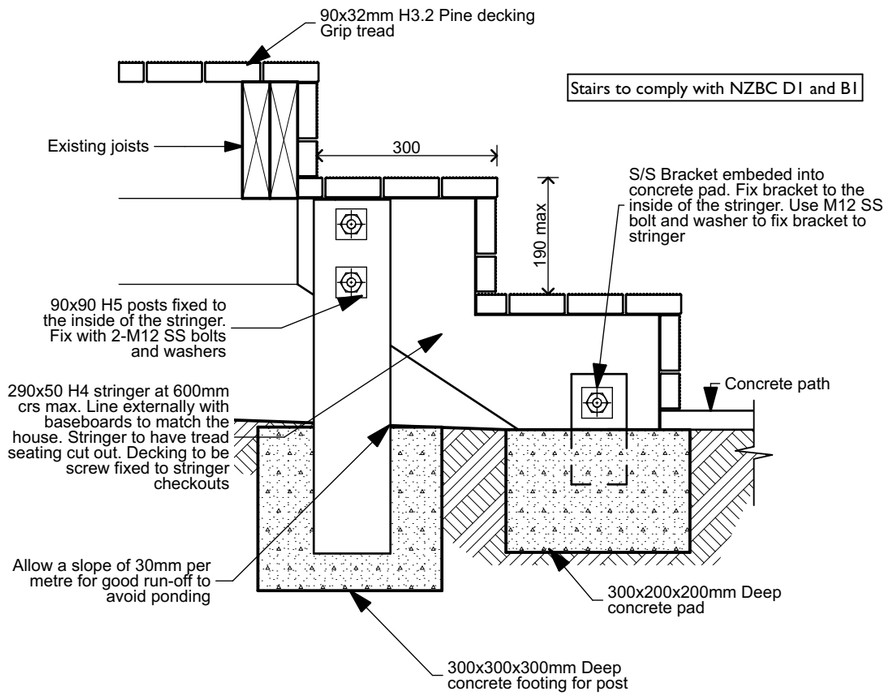
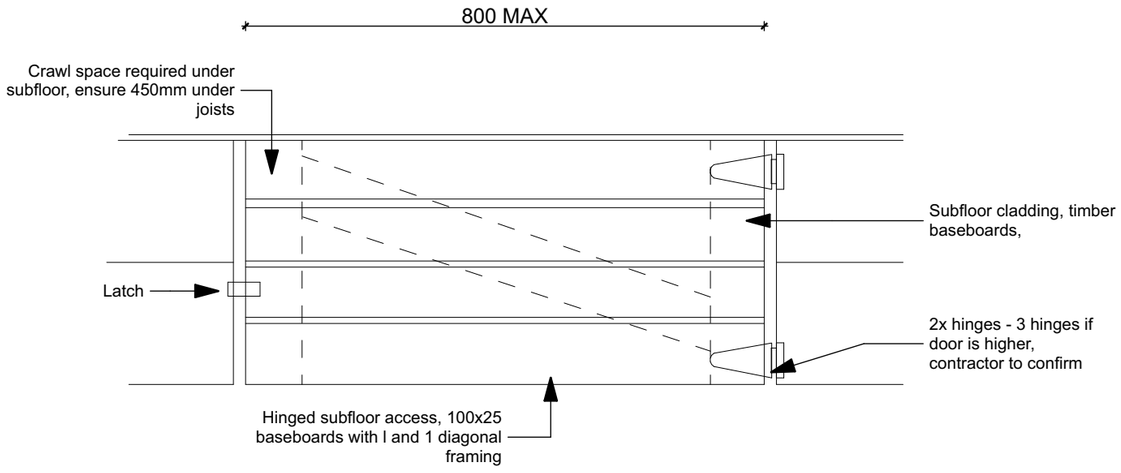
PROJECT JBA - 25055



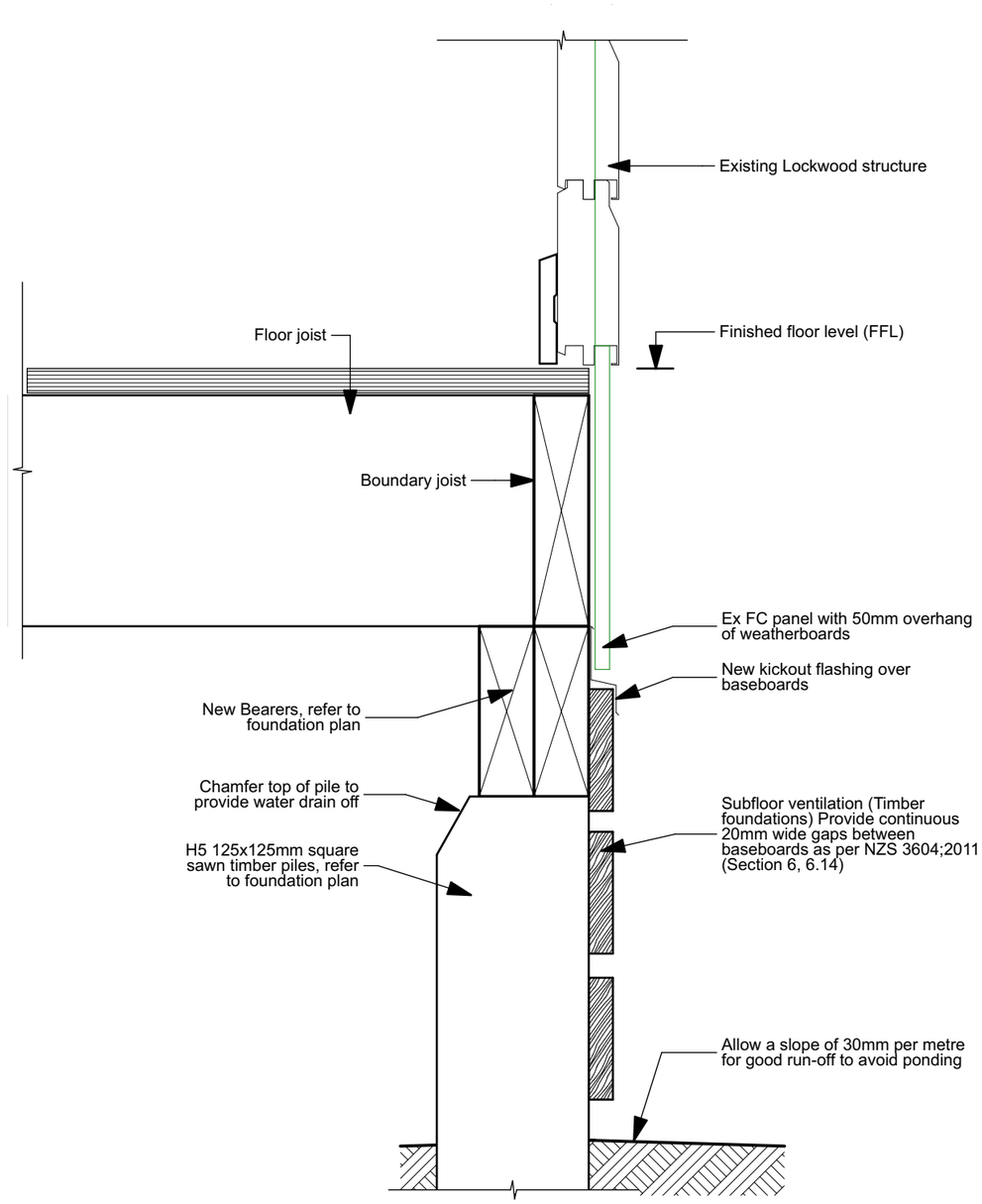
1 / -

Stair Detail
1:10



3 / -

Subfloor Door Detail
1:5



2 / -

Subfloor Cladding Detail
1:5

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Details 1

SHEET NO.
11

SCALE As Shown @ A3
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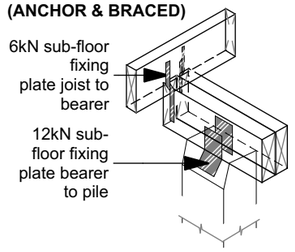
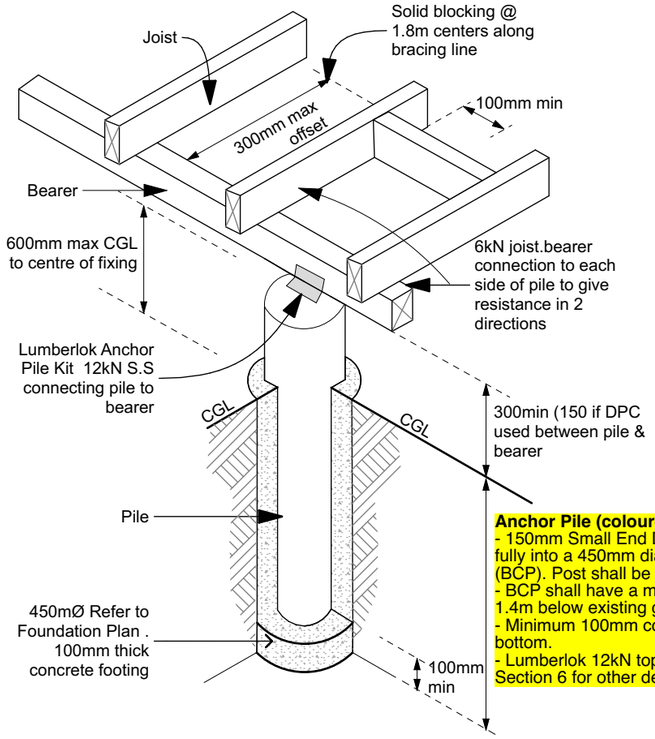
PILE TO BEARER CONNECTION (ANCHOR & BRACED)





NOTE:
(1) Beares shall not be joined @ an anchor pile
(2) CGL = Cleared Ground Level
(3) DPC = Damp-proof course

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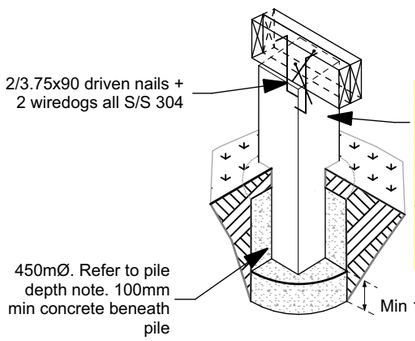
1
-

Anchor Pile
1:20



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2
-

Ordinary Pile
1:20

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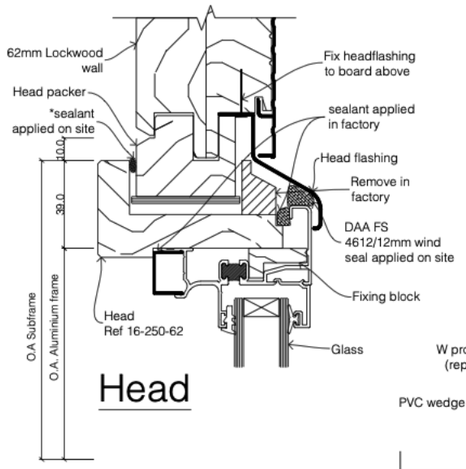
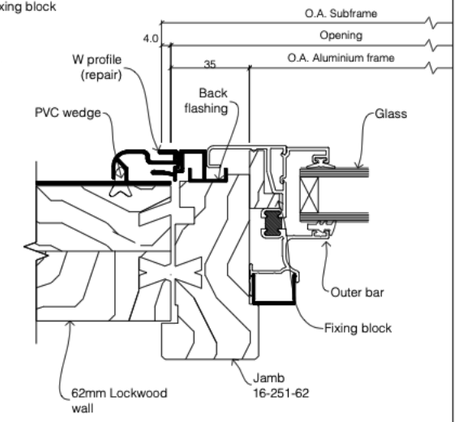
Details 2

SHEET NO.
12

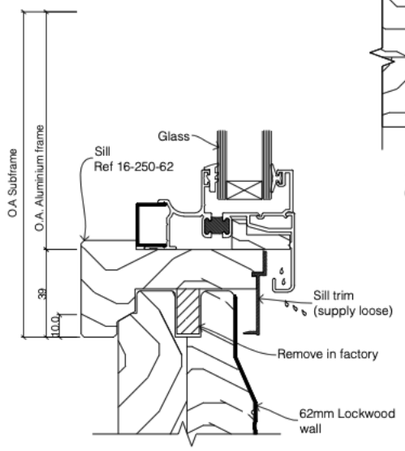
SCALE As Shown @ A3
PROJECT JBA - 25055



Head



Jamb



Sill

*Extra to standard components supplied by Lockwood.		Refer to Lockwood Nailing Schedule.
LOCKWOOD © All plans copyright Lockwood.	S41 Retrofit Joinery to existing 62 Lockwood wall: Window Head / Sill / Jamb	DETAIL #: 16-215-62 Revision Date: 10/24

1
-

Lockwood Details

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Details 3

SHEET NO.
13

SCALE As Shown @ A3

PROJECT JBA - 25055

P.O Box 145
Greenhithe
Auckland 0756

Tel: 413 8610
office@epgroup.co.nz
www.epgroup.co.nz

10th October 2025

Nikki Mills
nikkijanemills@gmail.com

Dear Nikki,

Re: House Relocation Report on 2/7 Waterloo Rd, Milford
EPG Job Ref: 260553

Please find attached a copy of the report completed on the above-mentioned property.

We are very proud of our high standard of service, and we hope that you will be satisfied with the following report. Should you have any questions relating to the enclosed, or if we can be of further assistance, please do not hesitate to contact us on the number provided above.

EP Group Ltd also offer the following services:
Pre-Purchase & Sale Inspections
Moisture Assessments and Thermal Imaging
Presumptive Meth Testing
Code Compliance Resolutions
Building Dispute Advice
Safe and Sanitary Inspections
Pool Fencing Advice
Certificate of Acceptance
Cladding Assessments
Members of NZ Institute of Building Inspectors (NZIBI)
Certified Weathertightness Inspector

We would like to take this opportunity to thank you for using EP Group Ltd. We appreciate your business and wish you every success for the future.

Yours sincerely,

DAVID HUGHES
Company Director

EP GROUP LTD
BUILDING & PROPERTY CONSULTANTS

ASSESSMENT ON THE DWELLING FOR RELOCATION SITUATED AT 2/7 WATERLOO RD, MILFORD

EPG REPORT REFERENCE # 260553

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1. INTRODUCTION

This building was inspected by EP Group Ltd (EPG) to assess the suitability of an existing dwelling for relocation. This inspection took place on the 9th October 2025 with this associated report compiled the following working day.

Please note that this is not a pre purchase building inspection and the inspection undertaken is limited to the scope of works required for house relocation only.

No assessment has been made on the stability or suitability for transportation, as the building was inspected prior to being prepared for moving. This matter should be discussed with a house removal company prior to purchase of the dwelling.

As older houses are generally of a larger size and often have unusual shapes, it is often difficult to fit them on smaller sites. We advise purchasers to check on this along with other building and planning regulations with the Local Authority where the house is to be relocated, to ensure problems do not occur in this area.

We recommend obtaining confirmation for Council on whether the House movers will be relocating this dwelling in one piece or cutting and moving separately.

With houses built in this era there is the potential for Asbestos in a number of materials like fibrous plaster, ceiling tiles, fibre cement panels etc. For confirmation, samples will need to be sent to lab for analysis. *Analysis is not included in this house relocation report*.

2. DESCRIPTION

This dwelling is approximately 45 years old. The exterior cladding is Lockwood weatherboards with aluminium joinery. The roof is of hip design and clad with decromastic tile. The building frame is of Lockwood timber.

EXTERIOR CONSTRUCTION			INTERIOR CONSTRUCTION		
SUBFLOOR:	Bearers:	-	**FLOOR:**	Construction:	Particle Board
	Joists:	-		Span:	/
CLADDING:	Lockwood Weatherboards		**WALLS:**	Framing:	Lockwood
				Lining:	Lockwood
JOINERY:	Aluminium		**CEILINGS:**	Framing:	lockwood
				Lining:	Lockwood
ROOF TYPE:	Hip		**FLOOR AREA:**	TBC	
ROOF MATERIALS:	Decromastic Tile		**LEVELS:**	One / Top only being moved	
DECKS:	/		**OVERALL CONDITION:**	Sound	

EXTERIOR CONDITION		INTERIOR CONDITION	
ROOF:	Sound	**WALLS:**	Sound
JOINERY:	Sound	**FLOORS:**	Sound
WALLS:	Sound	**CEILINGS:**	Sound
BORER/DECAY:	None sighted	**JOINERY:**	Sound

ACCOMMODATION					
LOUNGE	One	**DINING ROOM**	One	**KITCHEN**	One
BEDROOMS	Two	**BATHROOMS**	One		

3. REFERENCE LIST

Exterior Framing:

Lockwood construction with aluminium covering to weatherboard

4. ASSOCIATED IMAGES

Exterior

Interior

5. RECOMMENDATIONS

It is recommended that the house is suitable for relocation on the following conditions:

- Prepare plans for new foundations including bearers to suit these floor joists, plumbing, drainage and any other alterations or additions proposed in accordance with NZS 3604.
- Obtain the appropriate approvals from the Council where the building is to be relocated prior to relocation.
- Install insulation to all areas easily accessible.

"(a) This property report is a visual one only of the building elements which could be seen easily, and does not include any item that is closed in or concealed including flooring, walls, ceiling, framing, plumbing and drainage, heating and ventilation and wiring etc. Therefore we are unable to report that any such part of the structure is free from defect.

(b) This property report does not include the structural, electrical, plumbing or gas piping and fitting, home heating state of the premises, as our consultants are not qualified for this but can arrange for these areas to be inspected by those people whose qualifications enable them to do so."

This report and all consulting services provided by EP Group Ltd or the Consultants employed by the firm are provided solely for the use for the client who gave the instructions. EP Group Ltd does not now and will not hereafter assume any responsibility to any person other than the client for any reason whatsoever including breach on contract, negligence (including negligent mis-statement) or wilful act or default of the Company or others by reason of or arising out of the provision of this report or consultancy services. Any person, other than the client, who uses or relies upon this report or the matters contained in it, does so at the risk of that person.

This report has been completed with the specific purpose stated in this report. No responsibility is accepted to any person including the client in the event that the report is used for any other purpose.

This report relates to the situation at the date of the preparation of the report and is relevant to circumstances which prevail at the time.

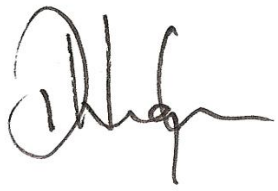
EP Group Ltd does not, as a matter of policy, contact out of the provisions of The Consumer Guarantees Act 1993. Therefore if there is any conflict between any statement contained in this report and any provision contained in The Consumer Guarantees Act 1993 then the provisions of The Consumer Guarantees Act 1993 shall prevail.

The whole or any part of this report may not be included in any published document or circular or statement except with the prior written approval of EP Group Ltd as to the form and context in which it may appear.

Substances such as asbestos, other chemicals, toxic waste or other potentially hazardous materials have not been detected except to the extent that the same are reported upon and this report comments on the presence of such hazardous materials only to the extent that it has been possible to determine their presence by a superficial examination of the premises which cannot reveal hidden substances. If the client is concerned about the presence of asbestos, other chemicals, and toxic wastes or other potentially hazardous materials then a more thorough examination of the premises may be required including permission to remove certain building materials in order to examine what lies underneath. While due care has been taken to note the presence of such asbestos, other chemicals, toxic wastes or other potentially hazardous materials such as mould, mildew and moisture as are visible upon a superficial examination of the premises. This report does not constitute an environmental audit and the same cannot be undertaken without additional work and research being carried out with the consent of the client and with additional cost to the client.

Any freestanding fire appliance or inbuilt fireplace is outside the scope of this report. Should this property contain either of these and you wish the condition to be assessed we recommend an approved installer be contacted.

Signed For and on Behalf of EP Group Ltd
Yours sincerely



DAVID HUGHES
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Onsite Wastewater Report (TP58)

Peter Mills
519 Puketotara Road
Waipapa
Far North District
Lot 3 DP 360829

Written by: Nicola O'Brien
Reviewed by: Martin O'Brien

Rev: A
Date: 2nd October 2025
Job No: 3038

Ph: (09) 407 5208 | Mob: 027 407 5208
E-mail: martin@obrienconsulting.co.nz
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Contents

Executive Summary

Lot 3 DP 360829 is a 9.424 ha, established rural property with an existing dwelling, farm buildings, grazing land and native bush located at 519 Puketotara Road, Waipapa. The owner proposes to relocate a 2-bedroom dwelling onto the lot. Onsite wastewater is required to service the dwelling. A secondary treatment system with surface laid dripper lines is recommended due to category 6 soils with slow draining characteristics.

Recommendations:

- The site is suitable for the disposal of onsite wastewater and a secondary treatment system with surface laid dripper lines is recommended.
- Effluent will be disposed of via a robust secondary treatment system which complies with the New Zealand Building Code. The system is to have a high output quality of: BOD5 equal to or less than 20g/m^3 and TSS equal or less than 30g/m^3, in line with NZS1546.3:2008 and the New Zealand Building Code.
- The proposed wastewater disposal field shall consist of approximately 240m of surface laid dripper line spaced at 1m. 240m^2 area in total. Dripper lines are to be surface laid, on even ground, through existing flax and conifers. The dripper line is to be covered by a minimum 50mm of mulch, bark or leaf litter.
- The proposed wastewater field is located near a property boundary. The owner and installer are to identify the property boundary before installation to ensure a setback distance of 1.5m for dripper lines is achieved.
- The proposed wastewater field is not to be grazed.
- There is adequate area to support a 100% reserve wastewater disposal field.
- The owner is to obtain a maintenance agreement from the manufacturer on purchase of the system. Aeration treatment systems should have an annual maintenance agreement with the supplier as stated in the Far North District Council bylaw 2805.2. This ensures the system operates efficiently and is serviced regularly.
- Correct use and maintenance of the wastewater system is required for it to work effectively and minimise environmental impacts.

1.0 Introduction

1.1 Scope

An on-site effluent disposal investigation, to obtain building consent, has been undertaken in accordance with TP58 On-site Wastewater Systems: Design and Management Manuel Third Edition (2004), Regional Plan for Northland (2019) and the Far North District Plan (2009). An onsite wastewater treatment system and land application method are recommended based on site characteristics including setback distances from surface water, groundwater, and soil type. A wastewater design is provided based on aforementioned documents and site characteristics.

1.2 Proposal

A secondary treatment system with surface laid dripper lines is proposed to service a proposed 2-bedroom dwelling.

1.3 Site Visit

The site investigation was undertaken on 23rd September 2025 and comprised of a visual assessment of the proposed wastewater disposal field and the surrounding area. A 50mm borehole to a depth of 1200mm was taken to acquire soil samples for examination and to establish groundwater depth. USDA feel method was used to determine soil texture, soil structure and soil category. The test location is indicated on the attached Site Plan, Section 8.

1.4 Desk Study

A desk study of available information and site characteristics was undertaken. The following sources were reviewed, TP58 (2004), Regional Plan for Northland (2019), Section C.6.1.3, Far North District Plan, Section 12.7.6.1.2, 12.7.6.1.4(b), Far North and Northland Regional Council Maps, Certificate of Title, and Consent Notices. There are no Consent Notices listed on the title.

2.0 Site Evaluation

2.1 Site Description

Lot 3 DP 360829 is located at 519 Puketotara Road, Waipapa and is zoned Rural Production in the Far North District Plan. Lot 3 is a 9.424 ha, established rural property with a dwelling, farm buildings, grazing land and native bush. The buildings are located to the northwest of the lot. Native bush is located to the southeast. The remainder of the lot is grassed pasture used for grazing with the occasional tree. Lot 3 is in a rural area surrounded by similar rural properties. Refer to the Northland Regional Council (NRC) Property Map, Section 2.2, showing Lot 3 DP 360829 and the surrounding area.

The proposed development is to be located to the south of existing buildings in a grassed paddock currently used to graze mini ponies. The proposed wastewater field is to run parallel to the southwest boundary amongst established flax and conifers. An existing grassed bund to the southwest of the plantings will prevent stormwater running onto the field. Refer to Photograph 1 and the Site Plan, Section 8 showing the approximate location of the proposed wastewater field.

The wastewater disposal field and reserve are to be setback a minimum 5m from any existing or future intermittent stormwater flow path such as an overland flow path, drain or stormwater spreader as per the Regional Plan for Northland (2019), Section C.6.1.3. No intermittent stormwater flow paths were noted within 5m of the proposed field.

No surface water bodies were noted in the near vicinity of the proposed wastewater disposal field and reserve (30m radius) meeting the 15m separation distance required by the Regional Plan for Northland (2019), Section C.6.1.3, Table 9 and the more conservative 30m separation distance outlined in the Far North District Plan, Section 12.7.6.1.4(b) from certain water bodies (river, lake, wetland or boundary of the coastal marine area).

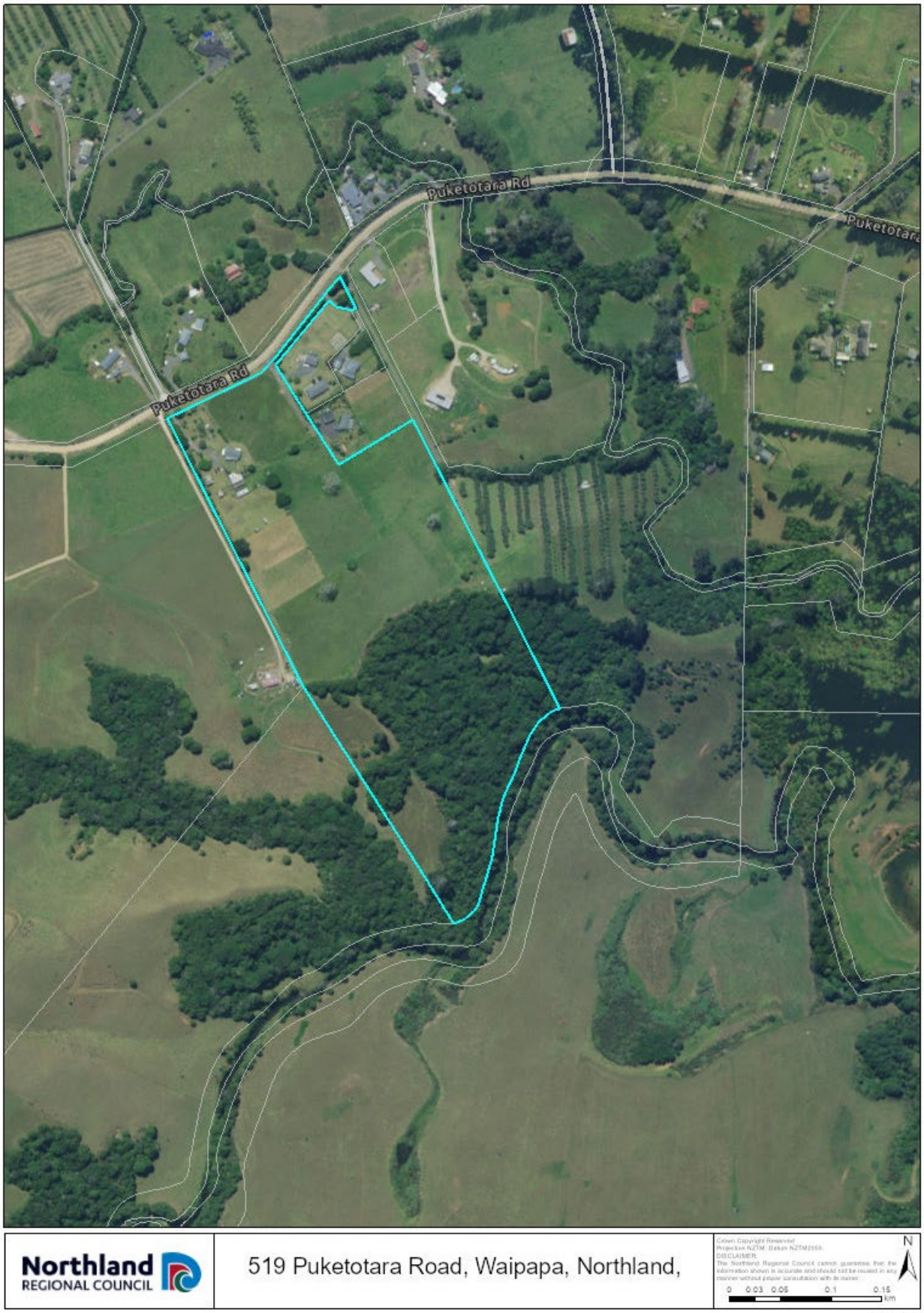
The closest water body is Puketotara Stream which runs parallel to the southeast boundary. The proposed wastewater disposal field and reserve are over 370m from the boundary.

According to Northland Regional Council Hazard maps the property is not identified as being in a flood area.

A 1.5m setback from boundaries and buildings is required as per TP58, (2004), Table 5.2. A 3m setback of the system from buildings is recommended. As the proposed wastewater field is located near a property boundary. The owner and installer are to identify the property boundary before installation to ensure a setback distance of 1.5m for dripper lines and 3m for the system is achieved. Refer to TP58, (2004), Table 5.2, The Regional Plan for Northland, (2019), Section C.6.1.3 and the Far North District Plan, Section 12.7.6.1.2, 12.7.6.1.4(b) for all wastewater setback requirements. The Site Plan, Section 8 shows the location of the proposed field and reserve along with setback requirements specific to the site.

Photograph 1: Showing the location of the proposed wastewater disposal field amongst existing boundary planting including flax and conifers.

2.2 Northland Regional Council Map



2.3 Groundwater

The Regional Plan for Northland (2019), Section C.6.1.3, Table 9 requires a 600mm separation distance of secondary treated wastewater from groundwater. TP58 (2004), Table 5.2 recommends a more conservative separation distance of 900mm in category 6 soils.

Groundwater was not intercepted during the 1200mm borehole taken during Spring, 23rd September 2025.

No freshwater bores were noted on Far North Atlas map in the near vicinity of the proposed wastewater disposal field meeting the 20m setback from a freshwater bore required by the Regional Plan for Northland (2019), Section C.6.1.3, Table 9. The owner is not aware of any freshwater bores on the property or within 20m of the proposed field.

2.4 Soil Profile

Managing Northland Soils Map shows 3 soil types over the property. The northern part of the lot where the development is to occur is located on moderately draining, Pungaere gravelly friable clay (PG).

The borehole log showed 400mm of category 5, slightly moist, brown topsoil followed by 100mm of category 4, slightly moist, brown, silty clay loam with gravel. From 500-700mm soils became category 5, slightly moist, brown, silty clay loam. From 700-1200mm soils were category 6, slightly moist, orange clay. Soils are classed overall as category 6, slow draining. Refer to the Borehole Log, Section 7 and Photograph 2 showing soil layers.

Photograph 2: Borehole showing 400mm of category 5, slightly moist, brown topsoil followed by 100mm of category 4, slightly moist, brown, silty clay loam with gravel. From 500-700mm soils became category 5, slightly moist, brown, silty clay. From 700-1200mm soils were category 6, slightly moist, orange, silty clay.

3.0 On-site Effluent Disposal Design

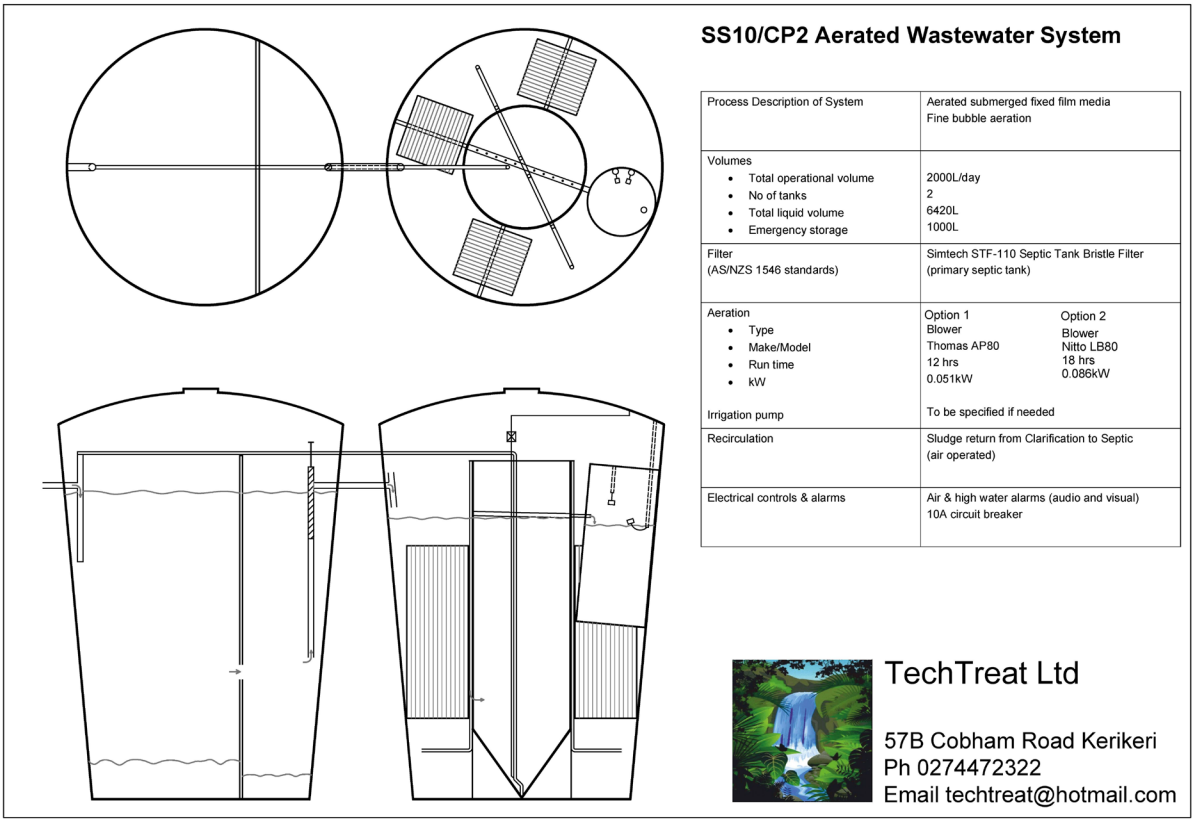
3.1 System Requirements

Effluent will be disposed of via a robust secondary treatment system which complies with the New Zealand Building Code. The system is to have a high output quality of: BOD5 equal to or less than 20g/m³ and TSS equal or less than 30g/m³, in line with NZS1546.3:2008 and the New Zealand Building Code. The system is to have emergency storage and be fitted with an alarm to protect against system failure.

The owner is to obtain a maintenance agreement from the manufacturer on purchase of the system. Aeration treatment systems should have an annual maintenance agreement with the supplier as stated in the Far North District Council bylaw 2805.2. This ensures the system operates efficiently and is serviced regularly.

The system is to be installed by a registered installer to manufacturer's instructions. It is imperative that a maintenance contract be obtained at the point of installation to avoid problems with the system. Installation and maintenance notes can be found at the back of this report, Section 8, 9 and 10.

Proposed system: Tech Treat SS10/ CP2 Wastewater Treatment System



SS10/CP2 Aerated Wastewater System

Process Description of System	Aerated submerged fixed film media Fine bubble aeration	
Volumes • Total operational volume • No of tanks • Total liquid volume • Emergency storage	2000L/day 2 6420L 1000L	
Filter (AS/NZS 1546 standards)	Simtech STF-110 Septic Tank Bristle Filter (primary septic tank)	
Aeration • Type • Make/Model • Run time • kW	Option 1 Blower Thomas AP80 12 hrs 0.051kW	Option 2 Blower Nitto LB80 18 hrs 0.086kW
Irrigation pump	To be specified if needed	
Recirculation	Sludge return from Clarification to Septic (air operated)	
Electrical controls & alarms	Air & high water alarms (audio and visual) 10A circuit breaker	

TechTreat Ltd

57B Cobham Road Kerikeri
Ph 0274472322
Email techtreat@hotmail.com

3.2 Proposed Effluent Disposal Field

Wastewater calculations as follows:

Potential occupancy of the dwelling x litres per person per day / loading rate = area of wastewater field

4 x 180 litres / 3 = 240m²

Occupancy is taken from TP58 (2004), Table 6.1, p.51. 180 litres of wastewater produced per person per day with tank water is allocated, in line with TP58 (2004), Table 6.2, p.52. A loading rate of 3 is assigned due to category 6 soils with slow draining characteristics in line with TP58 (2004), Table 9.2, p.150.

The proposed effluent field shall consist of approximately 240m length of surface laid dripper line spaced at 1m in a 240m² area. Dripper lines are to be surface laid, on even ground, through existing plants. Section 10.3 provides a list of native NZ plants suitable for wastewater disposal fields if additional plants are required. The dripper line is to be covered by a minimum 50mm of mulch, bark or leaf litter as per the Regional Plan for Northland, (2019), Section C.6.1.3, 5b. Refer to the attached Site Plan, Section 8.

The slope is flat to slight therefore rules regarding slopes greater than 10 degrees (Regional Plan for Northland (2019), Section C.6.1.3, notes 4 and 6) do not apply.

The wastewater disposal field should not be grazed, driven on or built over. These activities can result in damage to and failure of the effluent field.

Installation and maintenance notes can be found in Section 8, 9 and 10.

3.3 Reserve Area

The site has adequate area to support a 100% reserve wastewater disposal field, greater than the 30% minimum required by the Northland Regional Plan (2019). The purpose of the reserve is to provide additional area for wastewater disposal, for example in the event of failure of the original field or future expansion of the property. The reserve disposal field must be protected from any development that would prevent its use in the future.

3.4 Stormwater Management

The property does not benefit from a connection to the town main water supply. Stormwater from the roof of the dwelling will be collected in water tanks. The overflow from the tanks is to be directed well away from the proposed wastewater disposal field.

The topography slopes very slightly to the northeast over grassed pasture. The existing bund on the other side of the plantings will prevent stormwater running onto the wastewater field.

4.0 Council Requirements for new Building Consents

4.1 Smoke Alarms

Smoke alarms shall be installed in accordance with the New Zealand Building Code. This is a requirement by the Far North District Council for all new Building Consents. Interconnected smoke alarms as per NZS 4514:2021 are required as per NZ Building Code - Smoke Alarm Requirements | Cavius NZ, NZ-Building-Code.pdf (cavius.co.nz). Refer to Section 11 and the Cavius website for further details.

4.2 Earthworks

The proposed works will comply with Earthworks EW-S3 Accidental Discovery Protocol and Earthworks EW-S5 Erosion and Sediment Control – Auckland Council Guideline Document GD005 GD05 Erosion and Sediment Control. Pdf (aucklanddesignmanula.co.nz).

4.3 Hazardous Activities and Industries List (HAIL)

A Preliminary Site Investigation report is not available for Lot 3 DP 360829.

5.0 Summary

A secondary treatment system with 240m² of surface laid dripper lines and 100% reserve is recommended due to category 6 soils.

Setback distances from surface water, intermittent stormwater flow paths and groundwater has been achieved.

6.0 TP58 3rd Edition, Appendix E

PART A: Owners Details

1. **Applicant Details:**

Applicant Name:	Peter Mills
Company Name:	
Property Owner Name:	Peter Mills
Nature of Applicant	Owner

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	O'Brien Design Consulting Ltd	
Site Evaluator Name	Martin O'Brien	
Postal Address	O'Brien Design Consulting Ltd	
	153B Kerikeri Inlet Road	
	Kerikeri	
Contact Details	Phone	09 407 5208
	Mobile	027 4075208
Name of Contact Person	Martin O'Brien	
E-mail Address	martin@obrienconsulting.co.nz	
Website	www.obriendesignconsulting.co.nz	

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

No

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

None

PART B: Property Details

1. Property for which this application relates:

Physical Address of Property	519 Puketotara Road		
	Waipapa		
Territorial Local Authority	Far North District Council		
Regional Council	Northland Regional Council		
Legal Status of Activity	Permitted: √	Controlled:	Discretionary:
Relevant Regional Rule(s) (Note 1)			
Total Property Area (m^2)	94,240m^2		

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

Lot No.	Lot 3	DP No.	DP 360829	CT No.	247277
Other:					

Please ensure copy of Certificate of Title is attached

PART C: Site Assessment - Surface Evaluation

Has a relevant property history study been conducted?

Please Tick	No	√	Yes	

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

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

Please tick	No	√	Yes	

If No, state why?

The slope in the area of the proposed wastewater disposal field is slight at <5°and showed no signs of slippage or instability.	
If Yes, please give details of report (and if possible, please attach report): fill out if you said yes	
Author:	
Company/Agency:	
Date of Report:	
Brief Description of Report Findings: -	

2. Site Characteristics:

Provide descriptive details below:
Performance of Adjacent Systems:
Unconfirmed.
Estimated Rainfall and Seasonal Variation:
Information available from **N.I.W.A MET RESEARCH**
Northland = 112.6mm average per month during 1981-2010
Vegetation / Tree Cover:
Vegetation including flax and conifers.
Slope Shape: (Please provide diagrams)
Very slight slope in area of disposal field.
Slope Angle:
<5°
Surface Water Drainage Characteristics:
Refer to Section 3.4.
Flooding Potential: YES/NO
No.
Surface Water Separation:
Refer to Section 2.1 and the Site Plan, Section 8.

3. Site Geology

Moderately draining, Pungaere gravelly friable clay (PG).

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

North		West	
Northwest		Southwest	
Northeast	√	Southeast	
East		South	

5. Site clearances

Separation Distance from	Treatment Plant Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries	*1.5m minimum*	*1.5m minimum*
Stormwater flow paths e.g. drains	*5m minimum*	*5m minimum*
Surface water	*15m minimum*	*15m minimum*
Groundwater	-	*0.9m minimum*
Stands of trees/shrubs	*Outside tree canopy*	*Within or outside tree canopy*
Wells & potable water bores	*20m minimum*	*20m minimum*
Lakes, rivers, wetland & the coastline	*30m minimum*	*30m minimum*
Buildings	*3m minimum*	*1.5m minimum*
Flood area	*Ensure sealed unit no setback*	*Outside the 100yr ARI flood event*
Other:		

PART D: Site Assessment - Subsoil Investigation

1. Please identify the soil profile determination method:

Borehole	Hand Augured	1200mm deep	No of Boreholes	1
Other:	USDA feel method to determine soil texture and soil			

Soil Report attached?

Please Tick	Yes	√	No	

2. Was fill material intercepted during the subsoil investigation?

Please Tick	Yes		No	√

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

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

Not required				
Test Report Attached?	Yes		No	√

4. Are surface water interception/diversion drains required?

Please tick	Yes		No	√
A cut off drain is not required as the bund, running parallel to the proposed field, will prevent stormwater running				
onto it.				

4a. Are subsurface drains required?

Please tick	Yes		No	√

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

Winter	>1200 mm	Measured		Estimated	√
Spring	>1200 mm	Measured	√	Estimated	
Summer	>1200 mm	Measured		Estimated	√
Autumn	>1200 mm	Measured		Estimated	√

6. Are there any potential storm water <u>short circuit paths</u>?

Please Tick	Yes		No	√

7. Based on results of subsoil investigation above, please indicate the disposal field soil category

Is Topsoil Present?	Yes	If so, Topsoil Depth?	400mm
Soil Category	**Description**	**Drainage**	**Tick One**
1	Gravel, coarse sand	Rapid draining	
2	Coarse to medium sand	Free draining	
3	Medium-fine & loamy sand	Good drainage	
4	Sandy loam, loam & silt loam	Moderate drainage	
5	Sandy clay-loam, clay loam & silty clay-loam	Moderate to slow drainage	
6	Sandy clay, non-swelling clay & silty clay	Slow draining	√
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	

Reasons for placing in stated category

The borehole log showed 400mm of category 5, slightly moist, brown topsoil followed by 100mm of category 4,
slightly moist, brown, silty clay loam with gravel. From 500-700mm soils became category 5, slightly moist, brown,
silty clay. From 700-1200mm soils were category 6, slightly moist, orange, silty clay.
Refer to the Borehole Log, Section 7 and Photograph 2 showing soil layers.

PART E: Discharge Details

1. Water supply source for the property:

Rainwater (roof collection)	√
Bore/well	
Public supply	

2. Calculate the maximum daily volume of wastewater to be discharged, unless accurate water meter readings are available (Refer TP58 Table 6.1 and 6.2)

Number of Bedrooms – dwelling	2	
Design Occupancy	4	(Potential number of people)
Per capita Wastewater Production	180	(Litres per person per day)
Total Daily Wastewater Production	720	(Litres per day)

3. Do any special conditions apply regarding water saving devices?

a) Full Water Conservation Devices?	Yes		No	√	(Please tick)
b) Water Recycling - what %?	0%				(Please tick)

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

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

Please tick	Yes		No	√

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

PART G: Secondary and Tertiary Treatment

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

Secondary Treatment			
Home aeration plant	√	Refer to Section 3.1	
Tertiary Treatment			
Ultraviolet disinfection			
Other		Specify	

PART H: Land Disposal Method

1. Please indicate the proposed loading method:

Gravity	
Dosing Siphon	
Pump	√

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

Please tick	Yes	√	No	
If not to be installed, explain why:				

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

Total Design Head	32	(m)
Pump Chamber Volume	150	(Litres)
Emergency Storage Volume	1000	(Litres)

4. Please identify the type(s) of land disposal method proposed for this site:

Surface Dripper Irrigation	√	
Sub-surface Dripper Irrigation		
Mound with Dripper Irrigation		As Per Attached Plan

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

Loading Rate	3		(Litres/m²/day)
Disposal Area	Design (m²)	240	For driplines spaced at 1m
	Reserve (m²)	240	For driplines spaced at 1m

Explanation *(Refer TP58 Sections 9 and 10)*

Loading rate of 3 due to category 6 soils with slow draining characteristics in line with TP58 (2004), Table 9.2, p.150.

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

Reserve Disposal Area (m²)	240	For dripper lines spaced at 1m
Percentage of Disposal Area (%)	100%	

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

Description and Dimensions of Disposal Field:

Refer to Proposed Wastewater Disposal Field, Section 3.2 and the Site Plan, Section 8.					
Plan Attached?	Yes	√	No		(Please tick)

PART I: Maintenance & Management

(Refer TP58 Section 12.2)

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

Please tick	Yes		No	√

The owner is to obtain a maintenance agreement from the manufacturer on purchase of the system. Aeration
treatment systems should have an annual maintenance agreement with the supplier as stated in Far North District
Council bylaw 2805.2. This ensures the system operates efficiently and is serviced regularly.
Client to enter into agreement with chosen system supplier as per FNDC bylaw

PART J: Assessment of Environmental Effects

1. Is an assessment of environmental effects (AEE) included with application?
(Refer to TP58 Section 5. Ensure all issues concerning potential effects addressed)

Please tick	Yes	√	No	

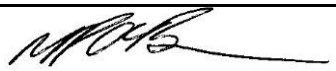
PART K: Is Your Application Complete?

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

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

2. Declaration

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

Name: Martin O'Brien	Signature	
Position: Director	Date	2nd October 2025

Note:

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

Building consent must be approved before work commences.

7.0 Borehole Log

O'BRIEN DESIGN CONSULTING

BOREHOLE LOG 1

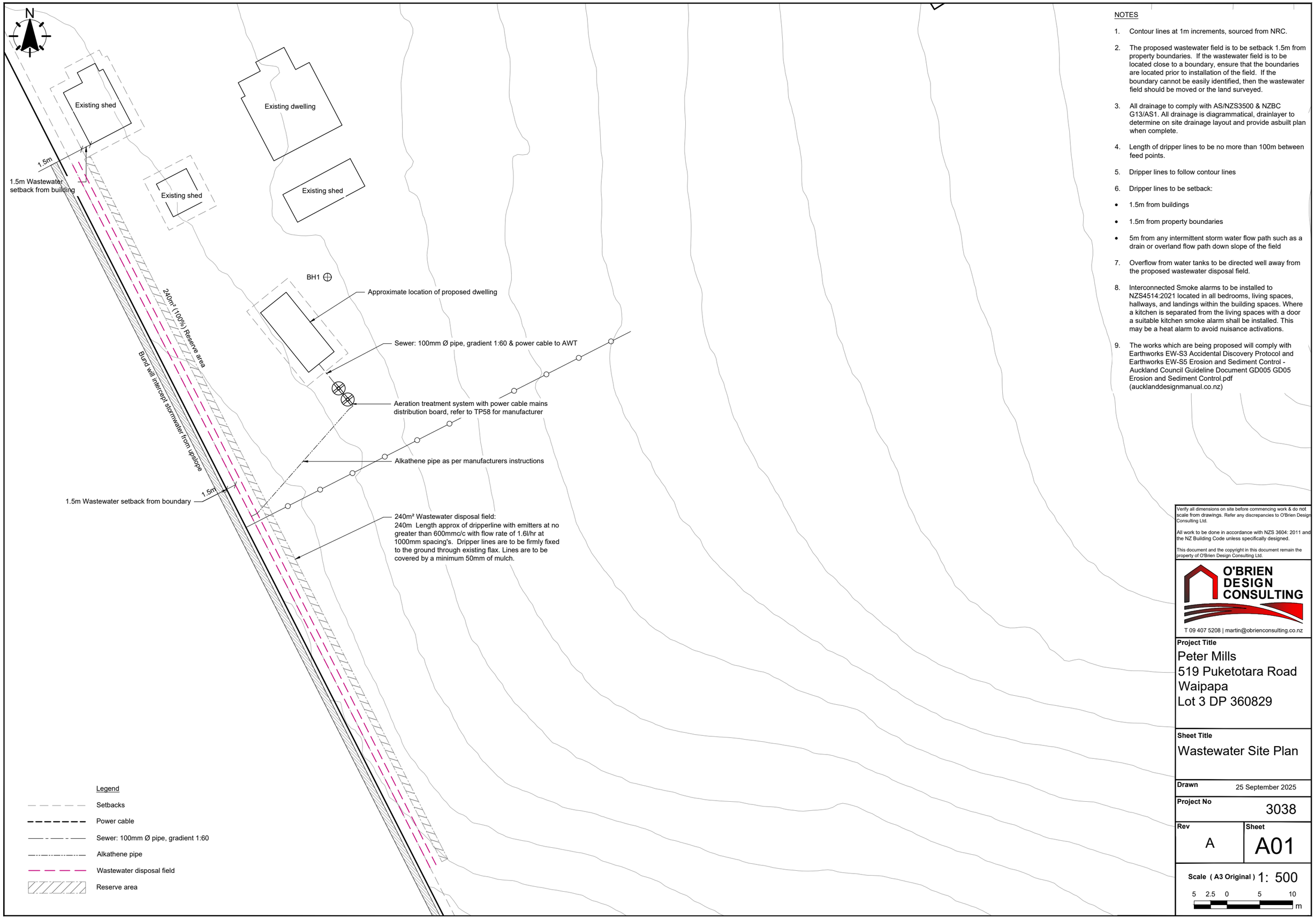
Client	Peter Mills	**Job No.**	3038
Project	Installation of onsite wastewater	**Date Drilled**	25/09/2025
Site Address	519 Puketotara Road, Waipapa	**Drilled By**	Martin O'Brien
Legal Description	Lot 3 DP 360829	**Drill Method**	50mm hand auger

Depth mm	GWL	Soil Map Reference	Graphic Log	Field Description	Soil Category
100 200 300 400	Groundwater not intercepted	Pungaere gravelly friable clay (PG)		Slightly moist dark brown topsoil	5
500				Slightly moist brown silty clay loam with gravel	4
600 700				Slightly moist brown silty clay	5
800 900 1000 1100 1200				Slightly moist orange silty clay	6
1300 1400 1500 1600 1700 1800 1900 2000 2100				EOB	

Graphic Log Legend

Fill | Topsoil | Gravel | Sand | Clay | Silt

The subsurface data described above has been determined at this specific borehole location and will not identify any variations away from this location. The data is for the determination of soil type for wastewater disposal applications only and is not to be used for geotechnical purposes.



NOTES

1. Contour lines at 1m increments, sourced from NRC.
2. The proposed wastewater field is to be setback 1.5m from property boundaries. If the wastewater field is to be located close to a boundary, ensure that the boundaries are located prior to installation of the field. If the boundary cannot be easily identified, then the wastewater field should be moved or the land surveyed.
3. All drainage to comply with AS/NZS3500 & NZBC G13/AS1. All drainage is diagrammatical, drainlayer to determine on site drainage layout and provide asbuilt plan when complete.
4. Length of dripper lines to be no more than 100m between feed points.
5. Dripper lines to follow contour lines
6. Dripper lines to be setback:
   - 1.5m from buildings
   - 1.5m from property boundaries
   - 5m from any intermittent storm water flow path such as a drain or overland flow path down slope of the field
7. Overflow from water tanks to be directed well away from the proposed wastewater disposal field.
8. Interconnected Smoke alarms to be installed to NZS4514:2021 located in all bedrooms, living spaces, hallways, and landings within the building spaces. Where a kitchen is separated from the living spaces with a door a suitable kitchen smoke alarm shall be installed. This may be a heat alarm to avoid nuisance activations.
9. The works which are being proposed will comply with Earthworks EW-S3 Accidental Discovery Protocol and Earthworks EW-S5 Erosion and Sediment Control - Auckland Council Guideline Document GD005 GD05 Erosion and Sediment Control.pdf (aucklanddesignmanual.co.nz)

O'BRIEN DESIGN CONSULTING
T 09 407 5208 | martin@obrienconsulting.co.nz

Project Title
Peter Mills
519 Puketotara Road
Waipapa
Lot 3 DP 360829

Sheet Title
Wastewater Site Plan

Drawn 25 September 2025

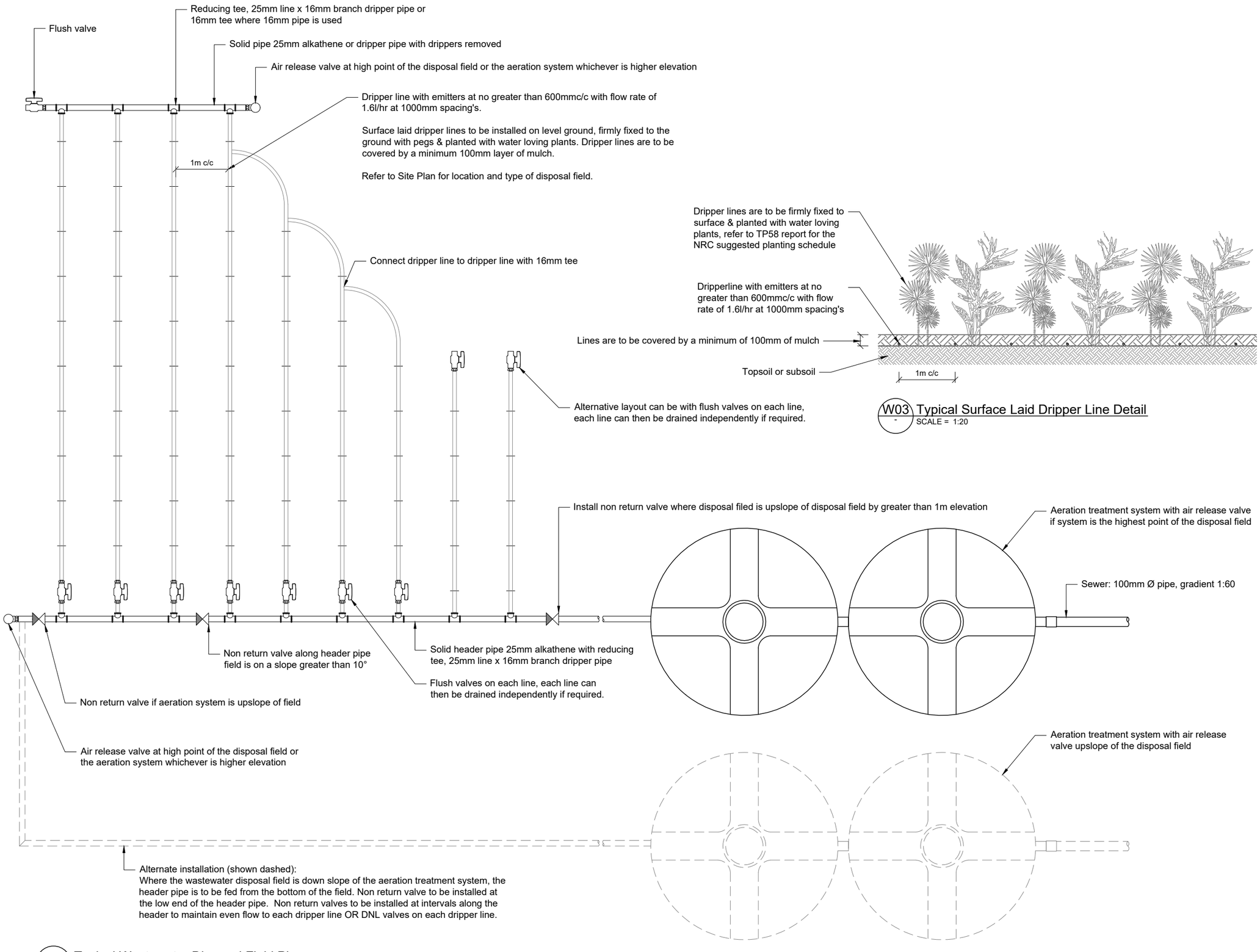
Project No 3038

Rev A

Sheet A01

Scale (A3 Original) 1: 500

5 2.5 0 5 10 m



W01 - Typical Wastewater Disposal Field Plan
SCALE = 1:20

W03 - Typical Surface Laid Dripper Line Detail
SCALE = 1:20

NOTES

1. All drainage is diagrammatical, do not scale from drawing.
2. Length of dripper lines to be no more than 100m between feed points.
3. Dripper lines to follow contour lines.
4. Dripper lines to laid on even ground, laying dripper lines on gully's or humps in the ground can cause ponding.
5. Air release valve to be at the high point in the disposal field or at the system if that is a higher elevation, locations shown on detail are indicative.
6. The works which are being proposed will comply with Earthworks EW-S3 Accidental Discovery Protocol and Earthworks EW-S5 Erosion and Sediment Control - Auckland Council Guideline Document GD005 GD05 Erosion and Sedimen Control.pdf (aucklanddesignmanual.co.nz)

O'BRIEN DESIGN CONSULTING
T 09 407 5208 | martin@obrienconsulting.co.nz

Project Title
Peter Mills
519 Puketotara Road
Waipapa
Lot 3 DP 360829

Sheet Title
Wastewater Design

Drawn 25 September 2025

Project No 3038

Rev A

Sheet A02

Scale (A3 Original) 1: 20

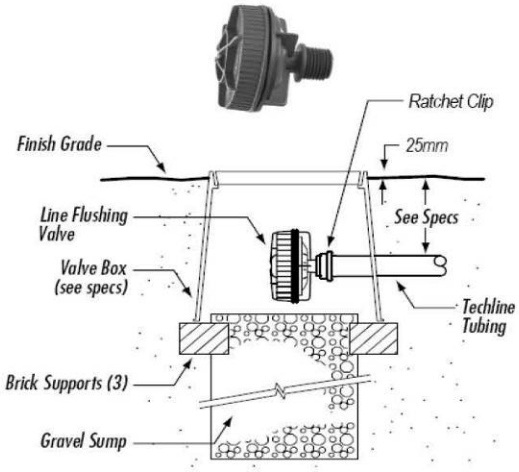
0.2 0.1 0 0.2 0.4 m

9.0 On Site Wastewater Installation Guide for the Installer

TECHLINE AS™ DESIGN GUIDE

LINE FLUSHING VALVES:
Line Flushing Valves are used to provide a cleansing action in the dripperline each time the zone is turned on.

- When a zone is turned on, the flush valve begins dumping water into a sump *(valve box)*.
- The dumping of water *(additional flow)* allows the velocity of water inside the dripperline to increase momentarily helping to clean the inside walls of the tubing and drip inlet filters.
- This action moves sediment out of the zone and into the sump.

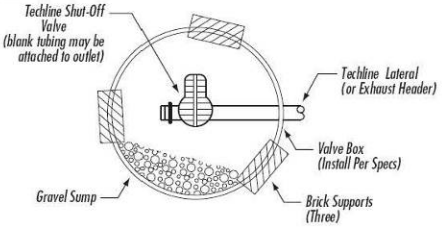


AUTOMATIC LINE FLUSHING VALVE:

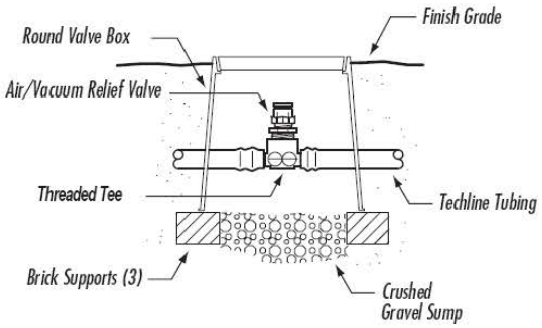
- Place one Automatic Line Flushing Valve at the furthest point in the drip system.
- For GRID layouts this will typically be in the collecting manifold. On flat sites the Automatic Line Flushing Valve can be installed in the middle of the collecting manifold however in sloping sites the flushing manifolds should be installed at the lowest end.
- For LITE layouts the Automatic Line Flushing Valve will be installed at the midpoint of the tubing layout.
- Use one Automatic Line Flushing Valve for each 45L/M of zone flow.
- All Automatic Line Flushing Valves should be installed in a valve box with a gravel sump adequate to drain approximately 4 litres of water.
- Automatic Line Flushing Valve requires a minimum pressure of 70kPa (7m) to shut off completely.

MANUAL FLUSHING VALVE:

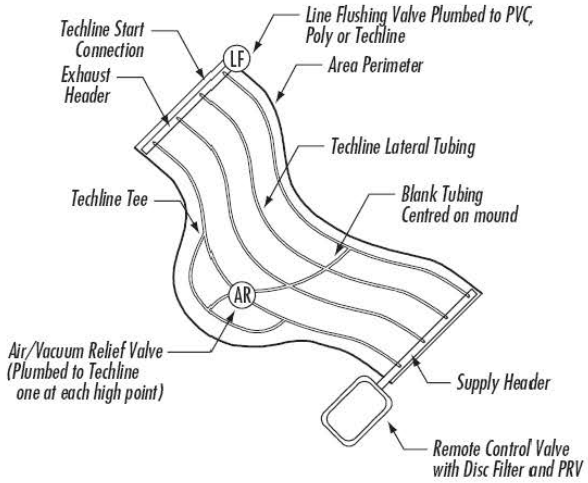
- Allows for manual flushing of lines during system start-up and during season.
- Manual Flushing Valves should be located at each end of the collecting manifold in a GRID system.
- Manual Flushing Valve should be located at the midpoint of a LITE layout.
- Allow 1 second per metre of dripperline & poly pipe in the zone for as a general guide for an adequate flush time.



AIR/VACUUM RELIEF VALVES:
Air/Vacuum relief valve freely allows air into a zone after shut down. It also ensures a vacuum within non Anti Siphon dripperline system doesn't suck debris or dirt back in to the dripperline. It also provides a means of releasing air from the dripperline when the zone is turned on, eliminating air pockets and speeding up the dripperline operation.



- Install Air/Vacuum Relief Valve at the highest point in the drip system.
- Install one Air/Vacuum Relief Valve for every 40L/M of zone flow.
- Ensure that all of the rows of Dripperline can take advantage of the Air/Vacuum Relief Valve; install it/them along a lateral that runs perpendicular to the dripperline laterals. This may be a collecting manifold, or a special lateral connecting all rows of dripperline, such as going over a mound.



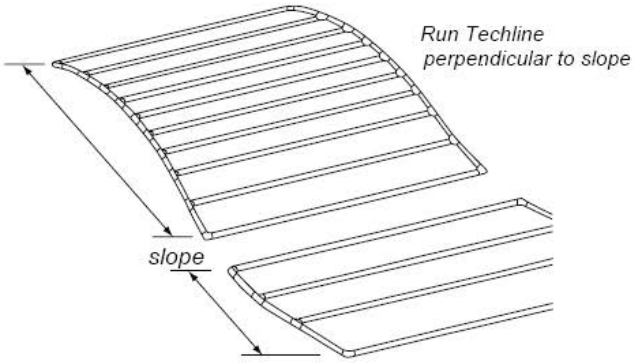
- All Air/Vacuum Relief Valves should be installed in a valve box with a gravel sump. This will ensure that the only clean air will enter the drip system.

Note: Larger Air Release valves are available for large projects.

SLOPES AND MOUNDS:
Techline AS™ has a self regulating dripper with an anti-siphon device built into it which will ensure that it will perform reliably on sites with slopes or mounds. When the drip systems shuts down however remaining water inside Techline AS™ will drain out which can cause an accumulation of water at the lower reaches of the drip system. This can be further compounded by the natural movement of water down the slope.

When designing a Techline AS™ system for sloping ground or mounds ensure that:

- Techline AS™ is installed perpendicular to *(across)* slopes. This helps eliminate water drainage at the lower ends of the drip laterals.
- On large slopes split the slope into two zones; run the top 2/3 on one zone and run the bottom 1/3 on a separate zone. This will allow greater irrigation control and will allow two areas with different water requirements to operate more efficiently.



- Install Dripperline Non Leakage *(DNL)* device which will hold back water inside the dripperline laterals and manifolds.

NOTE: Netafim UniRam CNL™ is a commercial dripperline that has a "non-leakage device" built into its drippers and prevents water draining out of them when the system is shut-off. It will hold back 1.4m of water within the drip system. This dripperline should be considered for projects where water drainage is undesirable.

10.0 On Site Wastewater Maintenance for the Owner

10.1 Why regular maintenance

Septic tanks and on-site wastewater treatment systems need regular maintenance to work properly. The impact on the environment is minimal if your system is well-maintained.

Owners are legally responsible for maintaining their on-site wastewater treatment system.

There are health risks for you, your family and your community from poorly maintained wastewater treatment systems. Poor maintenance of treatment systems can cause sewage effluent to rise to the surface or effluent to enter the groundwater system. People and animals can fall sick by coming into contact with raw sewage or by drinking contaminated groundwater. The life of your system depends on how much effluent is discharged each day and other factors such as rainfall and general clogging of pores in the ground. The greatest impact is how you maintain your system and what you put down it.

Components of your system

Your onsite wastewater system comprises of two main parts:

- Wastewater treatment unit – generally a septic tank or aerated treatment system.
- A land application system – generally trenches, or low-pressure surface or subsurface irrigation drip lines.

Both parts of the system need to be maintained to ensure that no health effects occur.

Do:

- Use biodegradable, low phosphate household cleaners and laundry powders or liquid.
- Use body washes and shower gels, instead of soap, (or non-petroleum based products).
- Use the water and suds saver cycles on your dishwasher and washing machine (if fitted) and put a water saver device on your shower.
- Fix any leaking pipes and toilet systems.
- Clean septic tank outlets and filter when required (usually every 6 months).
- Follow the service and maintenance requirements of your system.
- Scrape all dishes to remove food material before washing.
- Keep all possible solids out of the system.
- Inspect tank annually for sludge and scum levels.
- The tank should be pumped out approximately every 3–5 years. Have tank pumped out when:
    - the top of the floating scum is 75mm or less from the bottom of the outlet
    - sludge has built up to within 250mm of the bottom of the outlet

Don't:

- Use soap-based washing powders that do not biodegrade.
- Install a waste master disposal in your sink.
- Dispose of eggshells, coffee grounds or tea bags. Compost food scraps or put in rubbish.
- Dispose of strong bleaches, chlorine compounds, antiseptics or disinfectants, medicines or disposable nappies, sanitary napkins/pads or condoms into drains.
- Allow fat to be poured down the sink.
- Put petrol, oil, flammable/explosive substances, trade waste or chemicals down the drain.
- Empty a spa or swimming pool into the system.

Signs of trouble

The system is not working correctly if:

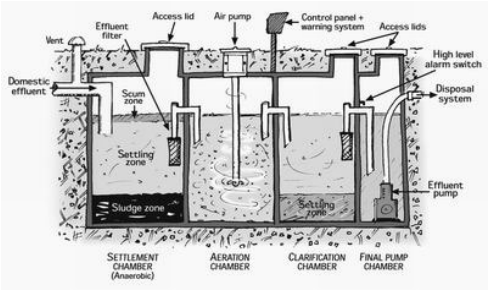
- There is a foul smell around tank or land application area.
- The tank, gully trap or tank mushroom is overflowing.
- The ground around the tank is soggy.
- Sinks/basins/toilets are emptying slowly or making gurgling noises when emptying.
- The grass is unusually dark green over the land application area.

10.2 Northland Regional Council Public Information

Aerated Wastewater Treatment Systems

The term 'Aerated Wastewater Treatment Systems (AWTS)' covers a range of types of onsite treatment systems that provide additional treatment to septic tank effluent. Their mechanical pumps require regular maintenance and a continuous power supply.

In general, an AWTS has three parts which may be housed in a single unit or split into more than one unit (see diagram below). This is a generalised diagram of an AWTS. Designs may differ with different brands.



The three main processes that take place in an AWTS are:

Settlement and anaerobic treatment

This takes place in a chamber or tank, and the process is identical to what happens in a septic tank. Solids within the effluent settle and are broken down by anaerobic bacteria (bacteria that live without oxygen).

Aerated treatment

The effluent then enters a second chamber where aerobic bacteria (bacteria that require oxygen to live) break down the solids further and reduce the number of harmful bugs within the effluent. This normally happens by either passing the effluent over, or through, a material that contains aerobic bacteria or by pumping air directly into the effluent. In some AWTS, a combination of both methods may be used.

Final settlement (clarification)

After the aeration treatment, the effluent is allowed to settle before being pumped to a disposal system. An AWTS removes a greater amount of solids from the effluent than a septic tank does and therefore problems within the disposal system caused by clogging are less likely. The additional treatment within the aerobic chamber should result in effluent that has fewer harmful bugs and nutrients, so it is less likely to be harmful to the environment. The installation of an AWTS is particularly useful in areas where there is a high groundwater table that needs protection or where there are poorly draining soils.

Effluent disposal

Effluent from an AWTS is commonly disposed of through dripper irrigation lines, which are flexible pipes with small pressure-compensating drippers installed along their length. The drippers should be self-flushing, which helps prevent them becoming clogged, and there should also be "flushing valves" at the end of each line for maintenance purposes.

Dripper lines are to be surface laid on even ground and planted with water loving plants. Lines are to be mulched with a minimum of 100mm of mulch.

It is recommended that the wastewater disposal area be clearly marked or fenced to minimise the risk to human health and reduce the possibility of damage to the system. The disposal field should not be used to graze animals, be driven on or built over. These activities can result in damage to and failure of the disposal field.

Surface water cut-off drains

If your disposal system is located on a slope, a surface water cut-off drain will usually be installed above the effluent disposal system to prevent stormwater runoff from the slope entering the disposal area. All surface water cut-off drains need to be maintained to make sure they work properly. This may include removing excess grass or plant growth from the drains and making sure there are no other obstructions to prevent the free flow of water.

Prior to winter, it is a good idea to give all surface water cut-off drains a quick visual check and to carry out any required maintenance as soon as possible. If a surface water cut-off drain is not working properly, the excess stormwater entering the disposal area will cause failure of the disposal system and result in effluent flowing down the slope.

10.3 Recommended Plants

Water loving native plants are recommended for the wastewater disposal field. The list below is taken from the Northland Regional Council website https://www.nrc.govt.nz/Resource-Library-Summary/Publications/Waste/Septic-tanks-and-sewerage-systems/Suitable-plants-for-effluent-disposal-areas/.

Your local garden centre will be able to recommend additional plants. Let them know that the plants are for a wastewater field, the soil type (e.g., heavy, slow draining clay) and amount of topsoil present.

Native shrubs, trees and ground covers

Kiokio (fern)
Blechnum novaezelandiae

Putaputaweta
Carpodetus serratus

Sand coprosma (ground cover)
Coprosma acerosa

Mingimingi
C. propinqua

Taupata
C.repens

Cabbage tree (fast)
Cordyline australis

Karaka (large tree)
Corynocarpus laevigatus

Tree fuchsia
Fuchsia excorticata

Koromiko, hebe
Hebe stricta

Houhere, lacebark (fast)
Hoheria populnea

Pukatea (large tree)
Laurelia novae-zelandiae

Manuka
Leptospermum scoparium

Kawakawa
Macropiper excelsum

Puriri (large tree)
Vitex lucens

Grass-like plants

Oioi, jointed rush
Apodasmia similis

Rengarenga, rock lily
Arthropodium cirratum

Rautahi, tussock sedge
Carex geminata

Purei, pukio, tussock sedge
Carex secta

Toetoe *
Cotaderia fulvida

Umbrella sedge
Cyperus ustulatus

Turutu, NZ blueberry
Dianella nigra

Pepepe, toetoe tuhara
Machaerina sinclarii

Harakeke, flax (fast)
Phormium tenax

* Do not use invasive exotic pampas grasses

11.0 NZ Building Code, Smoke Alarm Requirements

From November 2023 the Building Code Acceptable Solutions for Protection from Fire (C/AS1 and C/AS2) will be amended to make interconnected smoke alarms the minimum fire safety system for new built homes and substantial renovations, citing NZS 4514:2021 – *Interconnected smoke alarms for Houses.* The standard allows for wirelessly or hard-wired interconnection, using either 10-year long-life battery-powered or 240v mains powered alarms. The changes will have a 12-month transition period ending in November 2024.

Below are the key points of the changes to the acceptable solutions. Details can be found in the Standards New Zealand – NZS 4514:2021 interconnected smoke alarms for houses document, chrome extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.cavius.co.nz/wp-content/uploads/2023/07/NZ-Building-Code.pdf.

KEY POINTS:

- Equipment required must be either 10 year long-life battery-operated (non-removable/sealed) or 240v mains powered, interconnected smoke alarms.
- All smoke alarms must meet compliance standards such as BS EN 14604, AS3786, UL 217, CAN/ULC S531 or ISO 12239.
- Where more than one smoke alarm is needed to meet the requirements of this standard, these alarms shall be interconnected so that when one activates, all smoke alarm devices in the household unit will sound. The interconnection between alarms may be wired or wireless.
- Smoke alarms shall be located in all bedrooms, living spaces, hallways and landings within the building.
- In a multi-level household, there shall be at least one smoke alarm on each level.
- All smoke alarms must have a hush and test button.
- Smoke alarms shall be located on or near the ceiling.
- Where a kitchen or scullery is separated from the living spaces and hallways by doors that can be closed, an alarm specified by its manufacturer as suitable for a kitchen shall be located in the kitchen. This may be a heat alarm to avoid nuisance activations.

The information above is designed as a guide only. There is more information contained in the NZS 4514:2021 interconnected smoke alarms for houses standard.

12.0 Limitations

1. It is imperative that this report be read in full before installation commences. O'Brien Design Consulting Ltd. is to be contacted if there are any variations in subsoil or site conditions from those described in this report. Site conditions may change from the date of the site visit.

2. O'Brien Design Consulting Ltd. is to be contacted if for any reason installation of the onsite wastewater system cannot be achieved to the design set out in this document. In this event O'Brien Design Consulting Ltd. reserves the right to revise this document. Should at any time the design be altered, O'Brien Design Consulting Ltd. are to be contacted for written approval before installation commences.

3. Our responsibility for this report is limited to the property owner named in Part A of this document. We disclaim all responsibility and will accept no liability to any other person unless that party has obtained the written consent of O'Brien Design Consulting Ltd. O'Brien. Design Consulting Ltd reserves the right to qualify or amend any opinion expressed in this report in dealing with any other party. It is not to be relied upon for any other purpose without reference to O'Brien Design Consulting Ltd.

4. Any alteration to the site plan or design will result in noncompliance.

5. The wastewater disposal field is designed according to the number of bedrooms, potential occupancy and wastewater volumes produced, as outlined in this report. Any increase in the number of bedrooms, potential occupancy or wastewater volumes produced may result in failure of the field. O'Brien Design consulting take no liability for wastewater volumes produced exceeding that stated in Part E, number 2.

6. O'Brien Design Consulting check the area surrounding the proposed wastewater field as far as practical and use NRC and FNDC maps to investigate the property and surrounding area. For example, we investigate the area surrounding the proposed field during the site visit, use NRC Water Resources map for any known freshwater bore as well as ask the owner for local knowledge of bores. We do not have the authority to go onto other people's property. O'Brien Design Consulting do not accept responsibility for a site constraint such as a bore or surface water that is not visible from the property investigated (at the time of the site visit) or shown on maps.

7. Recommendations and opinions in this report are based on data obtained from the investigations and site observations. The nature and continuity of subsoil conditions and groundwater at locations other than the investigation bores and test areas are inferred and it should be appreciated that actual conditions could vary over the site.

8. This report does not investigate or give recommendations on ground bearing capacity for foundations or slope stability. A geotechnical report may be required. This is the responsibility of the homeowner.

9. Following payment to the FNDC your Building Consent documentation will be emailed to you. It is the responsibility of the homeowner/builder to engage a registered drainlayer to install the system and field. The homeowner/builder is responsible for ensuring a printed copy of the issued Building Consent documentation is onsite at every inspection. Plans must be printed in colour and be at least A3 size. The installation is to be inspected by a FNDC inspector or similar suitably qualified person.

10. Following completion of the project it is the homeowner's responsibility to apply for Code of Compliance. The system manufacturer and drainlayer should assist you in applying for Code of Compliance. You will need to fill out a Code of Compliance Form as provided in the following link: https://www.fndc.govt.nz/Our-Services/Building-Consents/Building-forms-and-guides/Code-Compliance-Certificate-Form-6. You will also need an As Build diagram from the drainlayer showing installation and a commissioning statement and electrical certificate from the manufacturer.

11. The homeowner is responsible for the everyday upkeep of the system and field. Information is provided in the NRC Public Information section of this report. Further information is to be supplied by the manufacturer.

12. It is the responsibility of the owner to provide the Far North District Council with a maintenance agreement for the installed system. The maintenance of onsite wastewater systems should be sustained to reduce the risk of system failure.

13. Any questions arising from the above or during installation, please call O'Brien Design Consulting Ltd.

13.0 Producer Statement

DESIGN: ON-SITE EFFLUENT DISPOSAL SYSTEMS (TP58)

ISSUED BY: Martin O'Brien……(approved qualified design professional)

TO: Peter Mills.....(owner)

TO BE SUPPLIED TO: Far North District Council

PROPERTY LOCATION: 519 Puketotara Road, Waipapa, Lot 3 DP 360829

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

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

As an independent approved design professional covered by a current policy of Professional Indemnity Insurance (Design) to a minimum value of $200,000.00, I BELIEVE ON REASONABLE GROUNDS that subject to:
(1) The site verification of the soil types.
(2) All proprietary products met the performance requirements.

Construction monitoring required: ☐

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

……(Signature of approved design professional)
Licence Building Practitioner - Design 2, MA, BA with Hons (Professional qualifications)
BP103567……(Licence Number or professional Registration number)

Address: 153B Kerikeri Inlet Road, Kerikeri
Phone Number: 09 407 5208, 027 407 5208
Date: 2nd October 2025

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

Wilton Joubert Limited
185 Waipapa Road
Kerikeri 0230
Tel: (09) 527 0197

SITE	**519 Puketotara Road, Waipapa**
LEGAL DESCRIPTION	**Lot 3 DP 360829**
PROJECT	**Site Investigation for Relocated Dwelling**
CLIENT	**Peter Mills**
REFERENCE NO.	**143114**
DOCUMENT	**Site-Specific Report**
STATUS/REVISION NO.	**FINAL – Issued for Building Consent**
DATE OF ISSUE	**20 October 2025**

Report Prepared For	Email
Peter Mills	papa.m@xtra.co.nz

Authored by	**S. Page**	Engineering Technician	shaun@wjl.co.nz	
Reviewed by	**A. Brooke** *NZDE (Civil)*	Engineering Technician	aidan@wjl.co.nz	
Approved by	**C. Hegedus** *BETech (Geotech) CPEng, CMEngNZ*	Senior Geotechnical Engineer	csaba@wjl.co.nz	

1. EXECUTIVE SUMMARY

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

Development Type:	Residential dwelling.
Development Proposals Supplied:	Yes – Draft architectural drawings (9 sheets).
NZS3604 Type Structure(s):	Yes.
Maximum Fill Depth Proposed:	None.
Maximum Cut Depth Proposed:	Minimal, assumed to be associated with the bored footing excavations.
Geology Encountered:	Kerikeri Volcanic Group.
Topsoil Encountered:	Surficial layers of topsoil were encountered to a depth of 0.20m below present ground level.
Overall Site Gradient in Proximity to Development:	Gently inclined (averages less than 5°).
Site Stability Risk:	Low risk of instability at the site.
Liquefaction Risk:	Negligible risk of liquefaction susceptibility.
Suitable Shallow Foundation Type(s):	Bored, concrete encased, tanalised timber pile foundations.
Shallow Soil Bearing Capacity:	Yes – Natural Soils Only. Geotechnical Ultimate Bearing Capacity = 300kPa.
NZBC B1 Expansive Soil Classification:	Class M – Highly Expansive (ys = 44mm).
NZS1170.5:2004 Site Subsoil Classification:	Class C – Shallow Soil stratigraphy.
Minimum Footing Embedment Depth:	0.60m below finished ground levels and 0.30m into competent natural ground, whichever is deeper.
Consent Application Report Suitable for:	Building Consent.

2. INTRODUCTION

2.1. SCOPE OF WORK

Wilton Joubert Limited (WJL) was engaged by **Peter Mills** (the Client) to undertake a geotechnical assessment of ground conditions at the above property where, we understand, it is proposed to relocate a dwelling onto the site.

For the purposes of this report, we have assumed the dwelling comprises of a lightweight building, designed and constructed generally in keeping with the requirements of NZS3604:2011.

2.2. SUPPLIED INFORMATION

Our assessment is based on the following development proposals supplied:

- Draft architectural drawings (9 sheets), titled; "*Proposed Relocation for Peter and Pauline Mills, at 519 Puketotara Rd, Waipapa* 0295", prepared by Johnson Brierley Architecture Ltd, dated 23 September 2025 (Ref: JBA-25055). The drawing set includes Site, Floor (Existing and Proposed), Elevation and Foundation Plans.

Any revision of the above drawings and/or development proposals with geotechnical implications should be referred back to us for review.

3. SITE DESCRIPTION

The proposed development will be constructed within the following property (the site) which is located off the southern side of Puketotara Road, access 5.2km west of the State Highway 10 intersection:

- 519 Puketotara Road, Waipapa, legally described as Lot 3 DP 360829.

The site is shown on our appended Site Plan (Drawing No. 143114-G600) and in Figure 1 below.

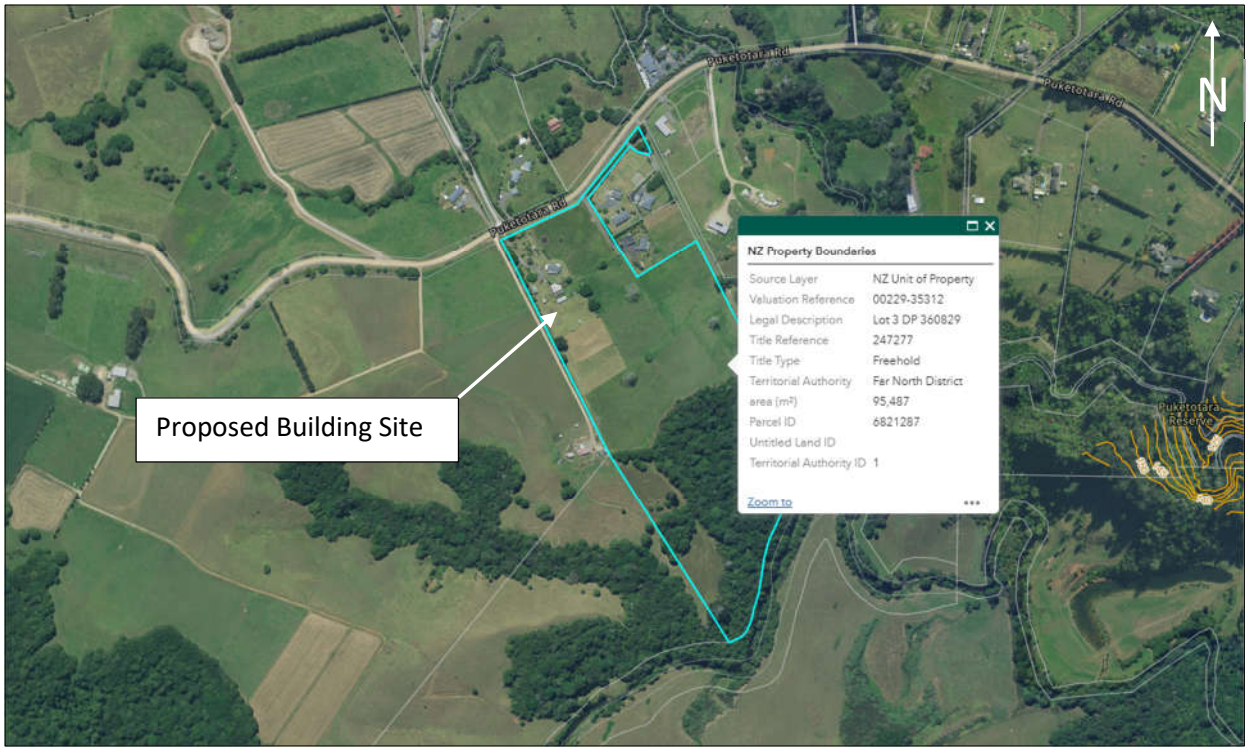


Figure 1: Aerial view with the subject property highlighted in cyan (from Northland Regional Council's online GIS database).

The surface area of the subject site is approximately 9.5ha and is accessed at the northwestern boundary corner via an aggregate driveway from Puketotara Road.

Built development is confined to the northwestern corner and comprises of an existing residential development with numerous sheds positioned to the south. The northern portion of the site is covered in pasture with occasional trees, whilst the southern portion is covered in dense, regenerating bush.

Topographically speaking, the northern portion of the site is located on an east to northeast facing, gently sloping flank that falls at gradients averaging less than 10°. Inclinations across the proposed building site are very gentle, averaging less than 5°.

The Far North District Council (FNDC) online GIS Water Services Map indicates that public underground water, wastewater and stormwater service connections are not available to the property.

4. DEVELOPMENT PROPOSALS

Based on our review of the supplied draft architectural drawings, it is our understanding that the client proposes to relocate a 75m² single-level, residential dwelling to the south of the existing residential development.

The dwelling will be founded on a timber subfloor, suspended on bored, concrete encased, tanalised timber pile foundations, supporting lightweight timber framing, weatherboard cladding and a lightweight metal tile roof. Minor timber decks of less than 10m² are also to be constructed off the northern and eastern sides of the dwelling.

We assume that earthworks will be minimal, associated with the construction of the foundations for the dwelling.

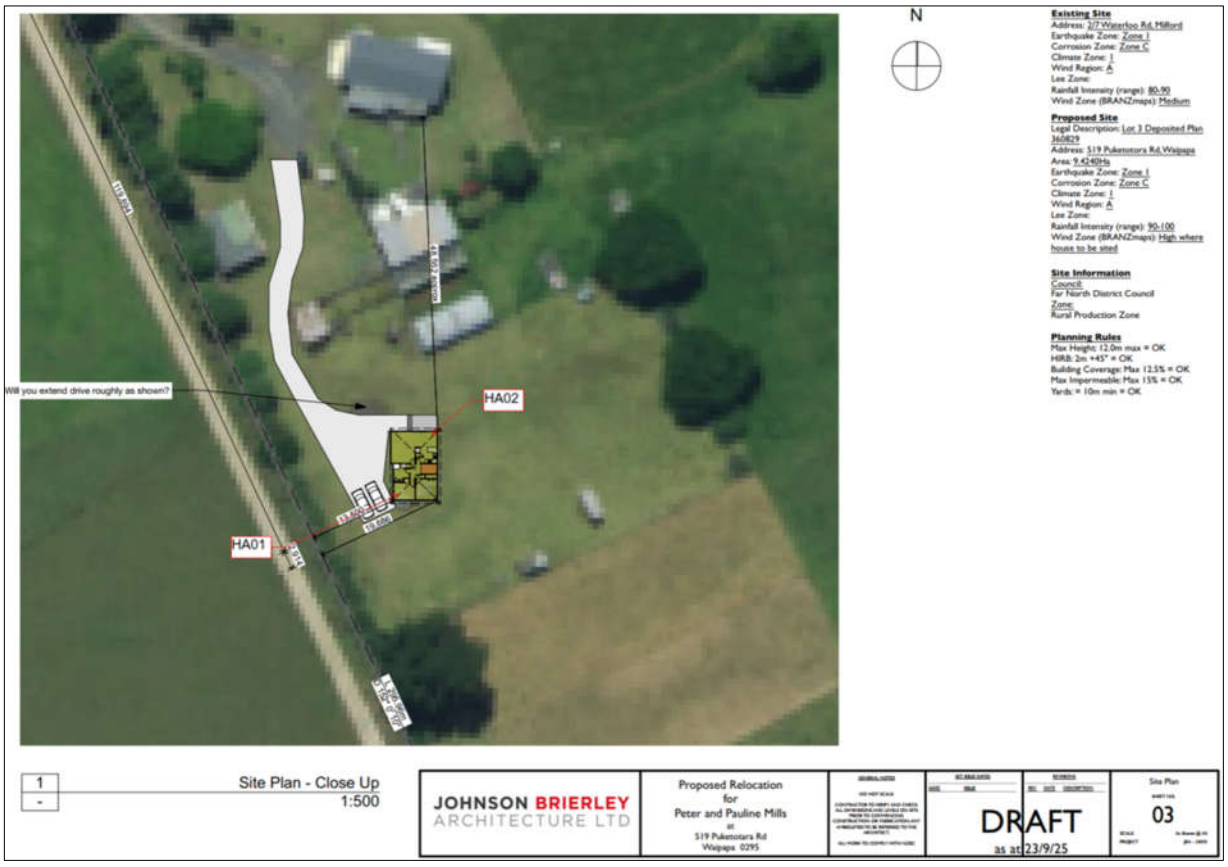


Figure 2: Draft architectural Site Plan depicting the proposed development (from the client).

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

5. PUBLISHED GEOLOGY

Reference to the New Zealand Geology Web Map hosted by GNS Science indicates that the subject site 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.

6. GEOTECHNICAL INVESTIGATION

6.1. FIELDWORK

Our fieldwork, as shown on our appended Site Plan, was undertaken on 15 October 2025 and involved drilling 2 (no.) 50mm diameter hand auger boreholes (HA01 to HA02) to refusal depths ranging between 2.4m and 2.6m below present ground level.

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), 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 was encountered in both HAs to a depth of 0.20m bpgl.

7.2. NATURAL GROUND

The underlying natural deposits encountered were consistent with our expectations of Kerikeri Volcanic Group deposits, comprising of no to low plasticity, very stiff to hard, SILT and Gravelly SILT, with minor clay.

Measured in-situ, BS1377 adjusted peak Vane Shear Strengths all exceed 195kPa and/or 197kPa, where soil strengths were in excess of the shear vane capacity, or the vane could not penetrate the soil (UTP).

Subsequently, no peak to remoulded Vane Shear Strength values were able to be obtained. Based on our previous experience, we generally assess the underlying subsoil deposits as 'Moderately Sensitive' subgrade.

Sensitive soil sites require protecting the subgrade from rain, wind, etc., and to avoid (or minimise) construction traffic and vibrating plants.

7.3. GROUNDWATER

Groundwater was not encountered in either HA 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	2.4 (1)	0.20	195+ / UTP	NE
HA02	2.6 (1)	0.20	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, in the absence of laboratory testing, but instead adopting the visual-tactile method as per AS2870, considering the no to low plasticity and minor clay content of the underlying silty and gravelly subsoils, we have adopted a conservative primary classification estimate of the soils underlying the site as follows:

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

Effects of expansive soils for the construction type proposed here, will require mitigation by way of specific engineering design (SED) deepened bored footings. Foundation design recommendations are given in the appropriate Conclusion and Recommendation sections below.

8. GEOTECHNICAL ASSESSMENTS

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

- Qualitative slope stability, and
- Liquefaction susceptibility assessments.

8.1. QUALITATIVE SLOPE STABILITY

Due to the gentle topography of the proposed building site which averages less than 5°, 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 on-line GIS Hazard Map categorises the site as an ‘*Unlikely*’ Liquefaction Vulnerability area,
- Very stiff to hard weathered soils of the Kerikeri Volcanic Group encountered during our investigation,
- Groundwater was not present within either HA on the day of our investigation,
- The site is situated on an elevated location, with good water-shedding characteristics,
- There are no known active faults traversing through or close to the site, and
- Weathered soils of the Kerikeri Volcanic Group underlie the site (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. ANALYSIS CONCLUSIONS

Based on our observations, site survey, record research, HA investigation and in-situ testing 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:

In the long-term, given that all the recommendations within this report, or subsequent revisions, are adhered to then we do not anticipate any significant risk of instability either within or immediately beyond the school boundaries.

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

i. The current proposed site development and associated building work to which an application of Building Consent (BC) must be made to FNDC should not accelerate, worsen, or result in slippage or subsidence on the land on which the building work is to be carried out or any other property; and

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

9. 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. FOUNDATION DESIGN

Shallow foundations are considered to be to support the proposed dwelling provided they are designed to accommodate vertical movement of soil associated with Soil Reactivity **Class M – Moderately Reactive.**

SHALLOW FOUNDATIONS BEARING CAPACITY

The following bearing capacity values are considered to be appropriate for the design of shallow foundations, subject to founding directly within competent natural ground, 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 2: Bearing Capacity Values

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

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

9.1.1. SHALLOW FOUNDATIONS ON EXPANSIVE SOILS

As described earlier in this report, we have estimated the classification of the soils as follows:

- 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 all proposed foundations.

9.2. NZS1170.5:2004 SITE SUBSOIL CLASSIFICATION

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

9.3. SITE EARTHWORKS

We assume that earthworks will be minimal, associated with the construction of the foundations for the dwelling.

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 at the invert of all bored footings should be confirmed by a Geo-Professional. 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

All 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.

9.6. 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, and
- Should the contractor require any site-specific assistance with safe construction methodologies, please contact WJL for further assistance.

9.7. 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 from new development areas 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 any 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. ON-SITE WASTEWATER DISPOSAL

No reticulated sanitary sewer is available for the site; therefore, an on-site wastewater treatment and disposal system will be required for the proposed development.

We recommend that all designs for on-site wastewater system should be carried out by an Engineer experienced in on-site wastewater disposal.

12. FUTURE CONSTRUCTION MONITORING

The foregoing statements are Professional Opinion, based on a limited collection of information, some of which is factual, and some of which is inferred. Because soils are not a homogeneous, manufactured building component, there always exists a level of risk that inferences about soil conditions across the greater site, which have been drawn from isolated "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 BC 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 BC and Council requirements. We require at least 48 hours' notice for site inspections.

Site inspections should be undertaken by a Chartered Professional Geotechnical Engineer or their Agent who is familiar with both this site and the contents of this geotechnical report.

Prior to works commencement, the above Engineer should be contacted to confirm the construction methodologies, inspection, and testing frequency.

The primary purpose of the site inspections is to check that the conditions encountered are consistent with those expected from the investigations and adopted for the design as discussed herein. If anomalies or uncertainties are identified, then further Professional advice should be sought from the Geo-Professional, which will allow the timely provision of solutions and recommendations should any engineering problems arise.

Upon satisfactory completion of the above work aspects, WJL would then be in a position to issue the PS4 as required by Council.

At this time, the following Geotechnical Site Inspections and Testing should include, but are not limited to:

- Pre-pour bored footing excavations.

13. LIMITATIONS

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

This report has been commissioned solely for the benefit of our Client, **Peter Mills,** 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)

HA Records (2 sheets)

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

WJL's Construction Monitoring Information (1 sheet)

SYMBOL KEY	
HA	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.

WILTON JOUBERT
Consulting Engineers
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Wanaka: 03 443 6209
www.wiltonjoubert.co.nz

ISSUE / REVISION			
No.	DATE	BY	DESCRIPTION
A	OCT 2025	A.B	ISSUED WITH GEOTECHNICAL REPORT

DESIGNED BY:
DRAWN BY: A.B
CHECKED BY:
SURVEYED BY:

SERVICES NOTE

WHERE EXISTING SERVICES ARE SHOWN, THEY ARE INDICATIVE ONLY AND MAY NOT INCLUDE ALL SITE SERVICES. WILTON JOUBERT LTD DOES NOT WARRANT THAT ALL, OR INDEED ANY SERVICES ARE SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING SERVICES PRIOR TO AND FOR THE DURATION OF THE CONTRACT WORKS.

GEOTECHNICAL

DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE:
SITE PLAN

PROJECT DESCRIPTION:
PROPOSED RELOCATABLE DWELLING

PROJECT TITLE:
LOT 3 DP 360829
519 PUKETOTARA ROAD
WAIPAPA
NORTHLAND

ORIGINAL DRAWING SIZE:	OFFICE:
A3	WHANGAREI
DRAWING SCALE:	CO-ORDINATE SYSTEM:
1:500	NOT COORDINATED
DRAWING NUMBER:	ISSUE:
143114-G600	A

HAND AUGER : HA01

JOB NO.: 143114 **SHEET:** 1 OF 1

START DATE: 15/10/2025 **NORTHING:** **GRID:**

CLIENT: Peter Mills **DIAMETER:** 50mm **EASTING:**

PROJECT: Relocated Dwelling **SV DIAL:** DR4802 **ELEVATION:** Ground

SITE LOCATION: 519 Puketotara Road, Waipapa **FACTOR:** 1.39 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL, dark brown, moist.	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	NATURAL: SILT, minor clay, pale brown, very stiff, moist, low plasticity.		0.4						
	Gravelly (Clast) SILT, minor clay, pale brown with orange mottles, very stiff, moist, no to low plasticity.		0.6		UTP	-	-		
	SILT, minor clay, orangey brown, very stiff, moist, low plasticity.		0.8		195+	-	-		
	1.1m: Occasional orange, red and white mottles.		1.0						
			1.2		195+	-	-		
			1.4						
			1.6		195+	-	-		
	1.9m: Trace clay, becoming brown with light purple and orange mottles, no to low plasticity.		1.8						
			2.0		195+	-	-		
			2.2						
			2.4						
	EOH: 2.40m - Too Hard To Auger				UTP	-	-		
			2.6						
			2.8						

TOPSOIL FILL CLAY SILT SAND GRAVEL PEAT ROCK

REMARKS

End of borehole @ 2.40m (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: SJP

CHECKED BY: CSH

▼ Standing groundwater level

▽ GW while drilling

WILTON JOUBERT Consulting Engineers
185 Waipapa Road, Kerikeri 0295
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HAND AUGER : HA02

JOB NO.: 143114 **SHEET:** 1 OF 1

CLIENT: Peter Mills
PROJECT: Relocated Dwelling
SITE LOCATION: 519 Puketotara Road, Waipapa

START DATE: 15/10/2025 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: 1994 **ELEVATION:** Ground
FACTOR: 1.41 **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE PEAK STRENGTH (kPa)	SHEAR VANE REMOULD STRENGTH (kPa)	SHEAR VANE SENSITIVITY	DCP - SCALA (Blows / mm)	COMMENTS, SAMPLES, OTHER TESTS
Topsoil	TOPSOIL, dark brown, moist.	TS	0.2	Groundwater Not Encountered					
Kerikeri Volcanic Group	NATURAL: SILT, minor clay, pale brown, very stiff, moist, low plasticity.		0.4						
	Gravelly (Clast) SILT, minor clay, pale brown with orange mottles, very stiff, moist, no to low plasticity.		0.6		UTP	-	-		
	0.7m: 100mm lense of Clayey SILT, brown, very stiff, moist, low plasticity.		0.8		197+	-	-		
	SILT, minor clay, reddish brown, very stiff, moist, low plasticity.		1.0						
	1.1m: Becoming reddish brown with brown mottles.		1.2		UTP	-	-		
			1.4						
			1.6		197+	-	-		
			1.8						
	1.9m: Bright orange inclusions.		2.0						
	2.0m: Occasional weakly and strongly fused clast inclusions.		2.2		197+	-	-		
			2.4						
			2.6		UTP	-	-		
	EOH: 2.60m - Too Hard To Auger		2.8		UTP	-	-		

REMARKS
End of borehole @ 2.60m (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

LOGGED BY: JEM
CHECKED BY: CSH

▼ 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

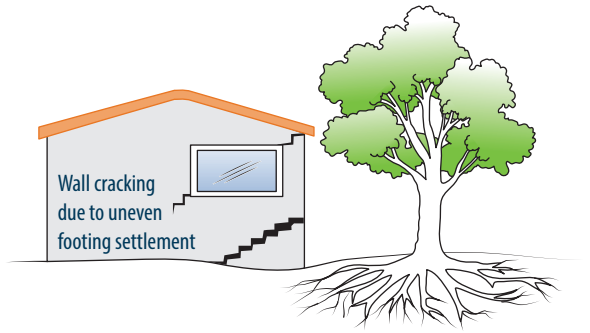

FIGURE 1 Trees can cause shrinkage and damage.

- 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

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.

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

Source: Reproduced with the permission of Standards Australia Limited © 2011. Copyright in AS 2870-2011 Residential slabs and footings vests in Standards Australia Limited.

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.

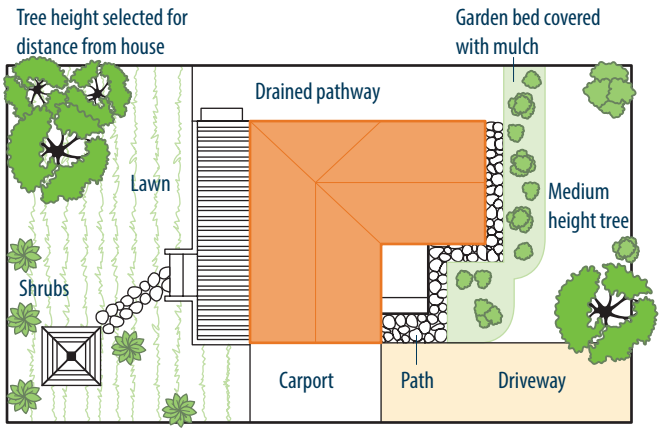

FIGURE 2 Gardens for a reactive site.

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.

WILTON JOUBERT
Consulting Engineers

Construction Monitoring Services

Northland, Auckland-Waikato, Canterbury, Southern Lakes

Need a PS4?

- Please read the conditions of your Building Consent to determine which section of the works Council wants an engineer to sign off on.
- Book an inspection with Wilton Joubert Ltd or with a suitable qualified engineer.
- Have the Consent documents on site at the time of the inspection
- Be sure to verify both the grounding conditions (soil parameters) as well as the structural elements of works in question
- If in doubt what to get inspected please clarify with Council.

Producer Statements 4 - Construction Review Documents (PS4's) relates to Building Consents (BC) only, not Resource Consents (RC), unless there is an element of the RC which requires a BC, e.g. a retaining wall needed to develop a subdivision.
In soils, RC's are usually verified with a "Statement of Professional Opinion as to Suitability for Building Development", or variations on that title.

CONSTRUCTION MONITORING SERVICES

Construction monitoring refers to the physical inspection of selective components of the design or works as required by Council and as specified in the Consented documents. It is up to the Consent holder to read the special conditions set out by Council and arrange for the required inspections to be done. No PS4 can be issued without the physical inspection of works and sighting of Consented plans either by the design engineer, his representative, or another qualified engineer. (download PDF with more info via our website)

It is also important to note that, more often than not, there are two physical components that needs verification:

1. Geotechnical or grounding Conditions –referring to the strength or bearing capacity of the soil
2. Structural Components – verify that works are done as per design and in accordance with the consented plans.

To complicate matters there can be multiple engineers that might be engaged on the same site:

- Civil Engineer – To do storm water and wastewater designs
- Geotechnical Engineer – to do a Geotech report and specificity soil parameters as required
- Structural Engineer – to design structural components such as retaining walls, raft floors, beams and so on.

In cases where engineers from different companies are appointed it is important to make sure all the required boxes are ticked as not to complicate matters when it comes to the issuing of all the relevant PS4's.
Note: sites in the Auckland area might requires multiple PS4's for the same component (e.g. a raft floor requires a Geotechnical Engineer to verify the bearing capacity of the platform and a Structural engineer needs to verify the structural components are according to the design.
Not to mention a Council inspection is also required on the same floor to verify position, plumbing and so on.

In Summary:

- Read the conditions as laid out in the Consent documents to which elements of the design requires a PS4's from the design engineer.
- Have Consented plans on site during inspection time
- Book inspections ahead of time (a minimum of 48 hours in advanced)
- Ensure both grounding conditions as well as structural components are inspected. In some cases, this might mean two separate inspections if different engineers are involved.
- If you have any further questions, feel free to contact us at any time during business hours.

Construction Monitoring Enquiries
Email: *jobs@wjl.co.nz*
or scan QR code to visit our website

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Approved by the District Land Registrar, South Auckland No. 351560
Approved by the District Land Registrar, North Auckland, No. 4380/81
Approved by the Registrar-General of Land, Wellington, No. 436748.1/81

EASEMENT CERTIFICATE

(IMPORTANT: Registration of this certificate does not of itself create any of the easements specified herein).

XXWe LESLIE EDWARD TYREE of Kerikeri, Farmer and PATRICIA LENORE TYREE his wife

being the registered proprietor(s) of the land described in the Schedule hereto hereby certify that the easements specified in that Schedule, the servient tenements in relation to which are shown on a plan of survey deposited in the Land Registry Office at Auckland on the day of 19 under No. 121147 are the easements which it is intended shall be created by the operation of section 90A of the Land Transfer Act 1952.

SCHEDULE

DEPOSITED PLAN NO. 121147

Nature of Easement (e.g., Right of Way, etc.)	Servient Tenement		Dominant Tenement Lot No.(s) or other Legal Description	Title Reference
	Lot No.(s) or other Legal Description	Colour, or Other Means of Identification, of Part Subject to Easement		
Water Supply	Part Lot 2 DP 121147	"A"	Lots 3 - 6 and Lot 10 10 DP 121146	70B/614 70B/615 70B/616 70B/617 70B/618
			Lots 7 - 9 DP 121145	70B/611 70B/612 70B/613
Water Supply	Part Lot 2 DP 121147	"B"	Lots 3 - 6 and Lot 10 DP 121146 and Lots 7 - 9 DP 121145	all as above
Water Supply	Part Lot 2 DP 121147	"C"	Lots 3 - 6 and Lot 10 DP 121146 Lots 7 - 9 DP 121145	all as above
Electricity Supply	Part Lot 2 DP 121147	"C"	Lots 3 - 6 and Lot 10 DP 121146 and Lots 7 - 9 DP 121145	all as above
Water Supply	Part Lot 2 DP 121147	"G"	Lot 1 DP 121147	70B/619

State whether any rights or powers set out here are in addition to or in substitution for those set out in the Seventh Schedule to the Land Transfer Act 1952.

1. Rights and powers: ~~XXXXX~~

THAT upon the creation of an easement to convey electric power in terms hereof and by the operation of Section 90A of the Land Transfer Act 1952 the Grantee shall have the full free uninterrupted and unrestricted right liberty and privilege (in common with the Grantor his tenants and any other person lawfully entitled so to do) to convey electric power under the surface of or through the soil of the land over which the easement is granted or created by means of wires or cables at such depth below the surface of the soil as may be in accordance with the requirements of the local or national authority body or agency having jurisdiction thereover and in conjunction with such cables to keep and maintain such pole or poles or pedestal or pedestals (whether above or under the surface of the soil) at such point or points as the said local or national authority body or agency shall stipulate AND the Grantor and the Grantee from time to time and their executors or administrators heirs and devisees will share the cost of all necessary erection burying inspecting repairing maintaining and renewing of any of the wires or cables or poles or pedestals the share of cost to be borne by each registered proprietor to be determined by dividing the total cost by the number of allotments using the said wires or cables.

2. Terms, conditions, covenants, or restrictions in respect of any of the above easements: Nil

Dated this 14th day of April 19 89

Signed by the above-named

LESLIE EDWARD TYREE and

PATRICIA LENORE TYREE

in the presence of

L. E. Tyree

P. L. Tyree

Witness .....

Occupation .....

Address .....

EASEMENT CERTIFICATE

(IMPORTANT): Registration of this certificate does not of itself create any of the easements specified herein.

Correct for the purposes of the Land Transfer Act

Solicitor for the registered proprietor

The within easements when created will be subject to section 309(1)(a) Local Government Act 1974

ANR

PARTICULARS ENTERED IN REGISTER
LAND REGISTRY AUCKLAND
ASST. LAND REGISTRAR

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McLEOD & PARTNERS
SOLICITORS
KERIKERI

Queen Elizabeth II
National Trust
For open space in New Zealand

Nga Kairauhi Papa

OPEN SPACE COVENANT

No. 5/2/479

OPEN SPACE COVENANT

(Pursuant to Section 22 of the Queen Elizabeth the Second National Trust Act 1977)

WHEREAS RONALD ARTHUR CORNELIUS and SUSAN KAY CORNELIUS

(hereinafter called **"the Covenantor"**) are registered as proprietors of an estate as set out in the Schedule of Land hereto (hereinafter called **"the land"**)

AND WHEREAS the **QUEEN ELIZABETH THE SECOND NATIONAL TRUST** established by the Queen Elizabeth the Second National Trust Act 1977 (hereinafter called **"the Trust"**) is authorised by that Act to obtain open space covenants over any private land

AND WHEREAS the Covenantor has agreed to enter into an open space covenant with the Trust for the purpose set forth in the First Schedule hereto

NOW THEREFORE in consideration of the covenants and conditions hereinafter contained **THESE PRESENTS WITNESS** that in pursuance of the said agreement and by virtue of Section 22 of the Act the Covenantor and the Trust with the intent and so as to bind the land into whosoever hands the same may come **MUTUALLY COVENANT** at all times to observe and perform the respective duties and obligations imposed by the restrictions, stipulations and agreements contained in the Schedules hereto to the end and intent that the same shall bind the land in perpetuity.

FIRST SCHEDULE

The Purpose of the within written open space covenant is to achieve the following open space objectives of the Covenantor and the Trust:

a) To protect and maintain the open space values of the land.
b) To protect and enhance the natural character of the land with particular regard to the indigenous flora and fauna.
c) To protect the landscape amenity of the bush on the land.

SECOND SCHEDULE

Interpretations, restrictions, stipulations and agreements

1. In the Deed unless the context otherwise requires:-
   "Act" means the Queen Elizabeth the Second National Trust Act 1977.
   "Board" means the Board of Directors of the Queen Elizabeth the Second National Trust.
   "Covenantor" means the **"Owner"** who entered into this covenant with the Trust.
   "Chief Executive" means the person appointed under Section 18(1)(a) of the Act.

"Owner" means the person or persons who from time to time are registered as the proprietor(s) of **"the land"**.

"the land" means the property or part thereof defined as subject to this covenant and as shown on the plan annexed to this Deed.

2. No act or thing shall be done or placed or permitted to be done or remain upon the land which in the opinion of the Board materially alters the actual appearance or condition of the land or is prejudicial to the land as an area of open space as defined in the Act.

   In particular, on and in respect of the land, except with the prior written consent of the Board, the Owner shall not:

   (a) Fell, remove, burn or take any native trees, shrubs or plants of any kind.
   (b) Plant, sow or scatter any trees, shrubs or plants or the seed of any trees, shrubs or plants other than local native flora, or introduce any substance injurious to plant life except in the control of pest plants.
   (c) Mark, paint, deface, blast, move or remove any rock or stone or in any way disturb the ground.
   (d) Construct, erect or allow to be erected, any new buildings or make exterior alterations to existing buildings.
   (e) Erect, display or permit to be erected or displayed, any sign, notice, hoarding or advertising matter of any kind.
   (f) Carry out any prospecting or exploration for, or mining or quarrying of any minerals, petroleum, or other substance or deposit.
   (g) Dump, pile or otherwise store any rubbish or other materials, except in the course of maintenance or approved construction, provided however that after the completion of any such work all rubbish and materials not wanted for the time being are removed and the land left in a clean and tidy condition.
   (h) Effect a subdivision as defined in the Resource Management Act 1991.
   (i) Allow cattle, sheep, horses, or other livestock to enter, graze, feed or otherwise be present provided, however, that they may graze up to any approved fenceline on the perimeter of the land.

3. In considering any request by the Owner for an approval in terms of Clause 2 hereof, the Board will not unreasonably withhold its consent if it is satisfied that the proposed work is in accordance with the aim and purpose of the covenant as contained in the First Schedule.

4. Except with the prior written consent of the Board, no action shall be taken or thing done, either on the land or elsewhere, which will in any way cause deterioration in the natural flow, supply, quantity, or quality of any river, stream, lake, pond, marsh, or any other water resource affecting the land.

5. The Owner shall notify the Trust of any advice received from any authority or company, including a mining company, or other body or person of the intention to erect or lay on or underground utility transmission lines or carry out any prospecting, exploration, mining or quarrying on the land and shall not signify any concurrence in relation to the proposed work without the written permission of the Board.

6.(i) The Owner shall continue to comply with the provisions of the Biosecurity Act 1993 and all amendments thereto provided, however, that the Owner may request assistance from the Trust in carrying out the aforementioned responsibility.

6.(ii) That in keeping with the aims and purposes of this covenant the Owner shall continue to comply with the Wild Animal Control Act 1977 and shall take reasonable measures for the control of wild animals as defined in the Act.

7. The Owner shall keep all fences and gates on the boundary of the land in good order and condition and will accept responsibility for all repairs and replacement except as provided for in Clause 8 herein.
8. In respect to access to the land the Covenantor and the Trust have mutually agreed that:
   (i) With the prior consent of the Owner, the Trust may through its officers, agents or servants enter upon the land for the purpose of viewing the state and condition thereof. In applying this condition the Owner shall not arbitrarily or unreasonably withhold consent and should any fence, gate or other improvement on the land be damaged in the course of the Trust exercising the right of access the Trust shall arrange repair or replacement.
   (ii) The Owner shall have the sole right to determine whether or not any member of the public may have entry or access to the land
   (iii) If any consent or permission is granted under (i) or (ii) of this clause, the Owner may determine conditions of such entry and access including any requirement for the Owner or any occupier of the land to be indemnified from and against any loss, damage or injury suffered by the Owner or any occupier as a consequence of any person entering onto the land.
9. The Owner may approve the use of firearms, traps or the safe use of poison by any person or persons for the eradication of pest animals on the land.
10. Any consent, approval, authorisation or notice to be given by the Trust shall be sufficient if given in writing signed by the Chief Executive and delivered or sent by ordinary post to the last known residential or official address of the Owner or to the solicitor acting on behalf of the Owner.
11. The Owner or the Trust may at any time during the term of this covenant, by mutual agreement, carry out any works or improvements, or take any action either jointly or individually, or vary the terms of this covenant to ensure the more appropriate preservation of the land as an open space in terms of the Act provided, however, such agreement is not contrary to the aim and purpose of this covenant.
12. The Trust may revoke this covenant if all the members of the Board are satisfied that by reason of any change in the character of the land or of any other circumstances which the Board may deem sufficiently material, this covenant ought to be deemed obsolete, or that the continued existence thereof would impede the reasonable use of the land without securing any practical benefit consistent with the purpose of the Act.
13. Nothing in these presents hereinbefore contained shall be deemed to render the Covenantor personally liable for any breach of these covenants and conditions committed after the Covenantor shall have ceased to be the Owner.
14. The Owner shall notify the Trust of any change of ownership or control of all or any part of the land, and shall supply the Trust with the name and address of the new owner.
15. If at any time prior to registration hereof by the District Land Registrar the Owner desires to sell or otherwise dispose of all or any part of the land such sale or disposition shall be made expressly subject to the restrictions, stipulations and agreements contained in the Schedules hereto.

SCHEDULE OF LAND

Land Registry: Estate:	NORTH AUCKLAND Fee simple
Area:	3.1800 hectares Shown as Area A on aerial photodiagram
Lot & D.P. No. (other legal description)	Part Lot 1 DP 193575 Block IV Omapere Survey District
Part Certificate of Title	NA121C/438

IN WITNESS WHEREOF this memorandum has been executed this 30th day of April 2002

by:
RONALD ARTHUR CORNELIUS _____

SUSAN KAY CORNELIUS S K Cornelius

as Covenantor
in the presence of

Witness (Signed) .....

Name (Print) Maria Gentil

Occupation Retail Assistant

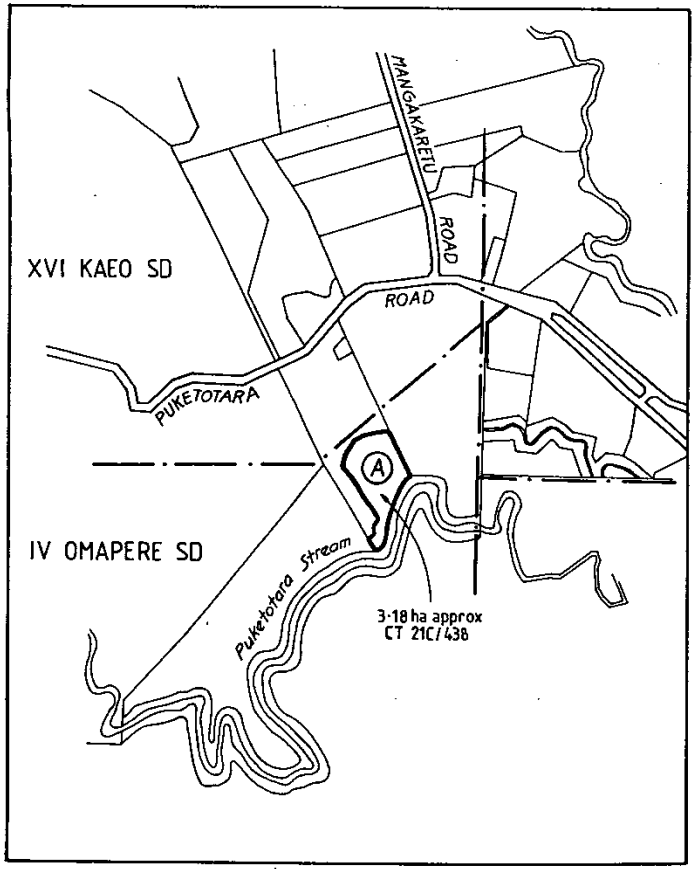
Address Doonside Rd
RD1
Kerikeri

THE COMMON SEAL of the QUEEN ELIZABETH THE SECOND NATIONAL TRUST was hereto affixed in the presence of:

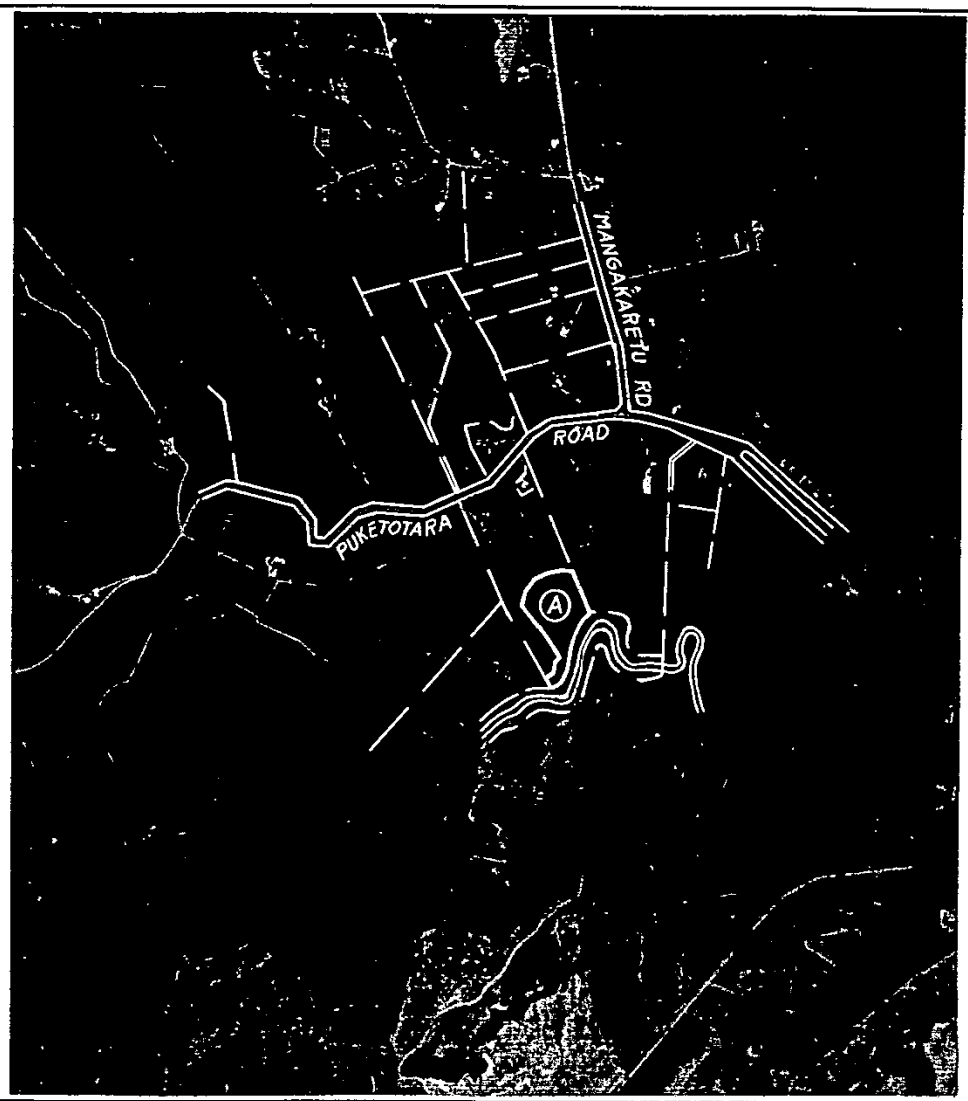
Chairperson _____

Director W. G. Gardner

Chief Executive _____



LOCATION DIAGRAM
Scale 1:13000
(Local Area: Kerikeri)



5631

This diagram replaces LT312235 which was missing as at 23/03/2003.

Certified as being correct for Covenant Purposes subject to Section 22(8) of the Queen Elizabeth II National Trust Act 1977.

Licenced Surveyor 16/5/2003

This is to certify that the Protected Areas shown can be defined in accordance with Section 22(8) of the Queen Elizabeth II National Trust 1977.

Approving Surveyor 19/5/2003

QUEEN ELIZABETH II NATIONAL TRUST
OPEN SPACE COVENANT
within Lot 1 DP193575

Total Covenant Area: 3.18 ha approx

NORTH AUCKLAND LAND DISTRICT – Whangarei District

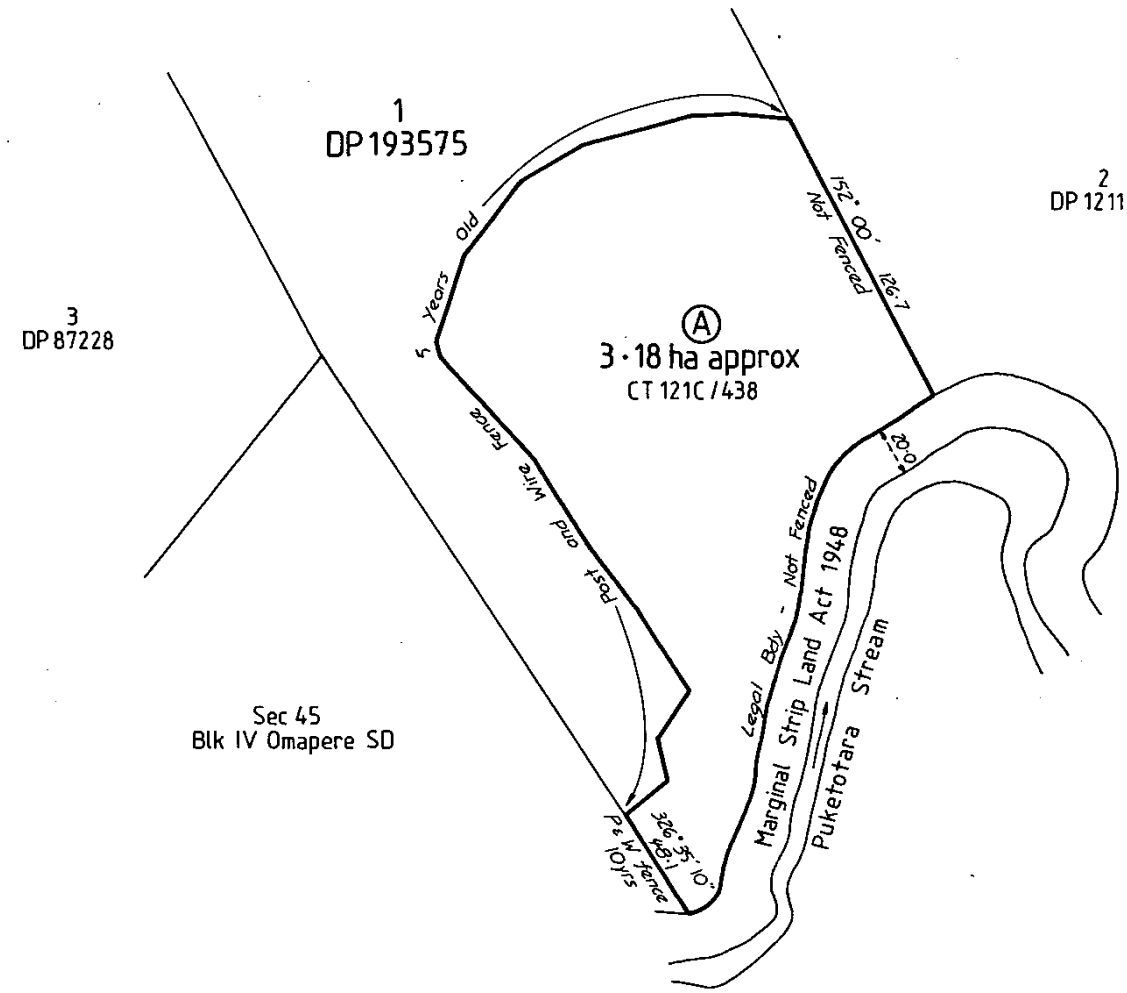
Photo: SN9935C K/17	Approx Scale @ A3: 1:13000	Sec Boundary ———
Photo Date: 4/03/2002	File Ref: 5/2/479	Covenant Bdy ———

Trust Manager
being a person authorised by the Trust to certify on its behalf.

Approved by Registered Proprietors: CT121C/438

R.A. Cornelius

S.K. Cornelius



5631

This diagram replaces LT312235 which was missing as at 23/03/2003.

Certified as being correct for Covenant Purposes subject to Section 22(8) of the Queen Elizabeth II National Trust Act 1977.

W.G. Gillanie 16/5/2003
Licenced Surveyor

This is to certify that the Protected Areas shown can be defined in accordance with Section 22(8) of the Queen Elizabeth II National Trust 1977.

W.G. Gillanie 19/5/2003
Approving Surveyor

QUEEN ELIZABETH II NATIONAL TRUST
OPEN SPACE COVENANT
within Lot 1 DP193575

Total Covenant Area: 3.18 ha approx

NORTH AUCKLAND LAND DISTRICT - Whangarei District

Photo: SN9935C K/17	Approx Scale @ A3: 1:2000	Sec Boundary ———
Photo Date: 4/03/2002	File Ref: 5/2/479	Covenant Bdy ———

Trust Manager
being a person authorised by the Trust to certify on its behalf.

Approved by Registered Proprietors: CT121C/438

R.A. Cornelius

S.K. Cornelius

OPEN SPACE COVENANT

Pursuant to Section 22 of the Queen Elizabeth the Second National Trust Act 1977.

Correct for the purposes of the Land Transfer Act.

R A CORNELIUS
S K CORNELIUS
Covenantor

Chief Executive
being a person authorised by the Trust to certify on its behalf.

AND

THE QUEEN ELIZABETH THE SECOND NATIONAL TRUST