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: Jake Currin & Ella Harris

Email: [redacted]

Phone number: Home

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

Postcode

6. Address for Correspondence

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

Name/s: Kim Nathan - KPN Consultants

Email: [redacted]

Phone number: Home

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

Postcode 0179

**** 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:

Property Address/ Location:

Postcode

8. Application Site Details

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

Name/s: Jake Currin & Ella Harris

Site Address/ Location: [redacted]

Postcode

Legal Description: **Val Number:**

Certificate of title:

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

Site visit requirements:

Is there a locked gate or security system restricting access by Council staff? ◯ **Yes** ✔ **No**

Is there a dog on the property? ◯ **Yes** ✔ **No**

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

9. Description of the Proposal:

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

Proposed construction of a new three bedroom dwelling

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

10. Would you like to request Public Notification?

◯ **Yes** ✔ **No**

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

(more than one circle can be ticked):

- ✔ **Building Consent** Enter BC ref # here (if known)
- ◯ **Regional Council Consent (ref # if known)** Ref # here (if known)
- ◯ **National Environmental Standard consent** Consent here (if known)
- ◯ **Other (please specify)** Specify 'other' here

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

The site and proposal may be subject to the above NES. In order to determine whether regard needs to be had to the NES please answer the following:

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

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

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

13. Assessment of Environmental Effects:

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

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

13. Draft Conditions:

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

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

14. Billing Details:

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

Name/s: (please write in full) Jake Currin & Ella Harris

Email: [redacted]

Phone number: Work [redacted] Home

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

[redacted]

Postcode

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) Jake Currin

Signature: [redacted] Date 8/10/25
(signature of bill payer)

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) Kim Nathan

Signature: [redacted] Date 7.10.2025

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

Checklist (please tick if information is provided)

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

Resource Consent Application

Jake Currin & Ella Harris

Lot 10, Wagener Grove

Pukenui

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October 2025

KPN Consultants Ltd – PO Box 836 | Whangarei 0140 | Phone (022) 076 6471

Application and Property Details

Applicant:	Jake Currin & Ella Harris
Site Address:	Lot 10 Wagener Grove, Pukenui
Agents Details:	KPN Consultants Limited PO Box 836 Whangarei 0140 Attention: Kim Nathan Phone: 022 076 6471 Email: kim@kpnc.co.nz
Submission Date:	
Legal Description and C/T:	Lot 10 DP 323666 and 1/11 share in Lot 13 DP 323666 (95372)
Site Area:	1.0052ha + 1/11 share of 6224m^2
Operative Plans Applying:	Far North District Plan
Zoning:	Coastal Living
Proposed Plans Applying:	Proposed District Plan
Zoning:	Rural Lifestyle
Controls/Overlays:	Treaty Settlement Area of Interest (Ngati Takoto, Ngati Kuri & Te Aupouri)
Other Applications Required:	-

Contents

Appendices

1.0 Introduction

The proposal is a land use consent to construct a new residential dwelling on the application site.

2.0 Site and Locality Description

2.1 Site Description

The application site is Lot 10 on Wagener Grove, Pukenui. The lot was created as part of a recent 11 lot subdivision which was completed in 2005 under RC2010082.

The application site is just over 1 hectare in area and is of relatively flat topography.

The application site largely remains undeveloped and is maintained in grass. A minor cabin placed on above-ground skids, water tank, and two shipping containers are situated near the south-western boundary corner. There are is existing vegetation and landscape planting within the site, the majority along the boundaries of the allotment as can be seen in the photo (Figure 1) below.

The application site is not located within the coastal environment, nor is it visible from the Houhora Harbour, which is located over 850 metres east from the site. The township of Pukenui is located approximately 2 kilometres south-east of the subject site.

Figure 1: Aerial Photograph of the application site and surrounds (FNDC GIS)

2.2 Locality Description

The surrounding environment is made up of similar sized allotments, some of which have been developed and contain single residential dwellings, while others remain vacant.

3.0 Proposal / Background

3.1 Relevant Background

The application site is held in record of title 95372 (**Appendix B**) and was created under a recent subdivision proposal RC2010082.

The subject site is 1.0052 hectares in area and has a 1/11th share of Lot 13 (Wagener Grove).

Consent Notice 6290071.3 is registered on the property's Title. The consent notice is attached to this application (**Appendix B**). The conditions are in relation to the following summations:

i. Maintain the trees and/or shrubs comprised in the approved landscaping.
ii. Comply on an on-going basis with the duties and obligations imposed by way of the provisions of the document prepared in compliance with Condition (3)(j) of RC2010082 dated 9 July 2001.
iii. Lots 1 and 11 are to form access only off Lot 13.
iv. Undertake any maintenance by the stormwater management plan as prepared and implemented under Condition (3)(b) of RC2010082 dated 9 July 2001.
v. Any subsequent re-subdivision of the allotments will be assessed for its contribution toward providing an urban solution to the stormwater control within the area of the original subdivision.

The approved landscaping was established under RC2010082 and is maintained along the boundaries.

Conditions (ii) and (iv) relate to the stormwater management of Lots 12 and13 (Wagener Grove – private accessway). The stormwater management was implemented as part of the subdivision works for RC2010082 and is being complied with.

Conditions (iii) and (v) are not applicable.

The applicants will comply with the relevant consent notice conditions on an on-going basis.

3.2 The Proposal

The proposal is to construct a new residential dwelling on the application site, the plans of which are included in **Appendix A**.

The 170.93m^2 dwelling is single storey in nature and modern in design, consisting of 3-bedrooms, an office, two bathrooms (including ensuite) and an open plan living/kitchen/dining area, having a total floor area of 234.51m^2.

The dwelling will gain access via an existing JOAL (Lot 13 DP 323666 'Wagener Grove') and there is plenty of room within the site for parking and vehicle manoeuvring.

On-site servicing is proposed as described in **Appendix D**.

Wastewater will be disposed of on-site via a secondary treatment system.

Impervious surfaces will be tank attenuated before discharge via spreader.

2 x 25,000 litre water tanks will provide adequate water supply.

4.0 Reasons for the Application

4.1 Far North District Plan (Operative)

The site is zoned within the Coastal Living Zone within the Operative District Plan.

Rule 10.7.5.1.1 Visual Amenity requires that the gross floor area of any new building(s) does not exceed 50m². The proposed building has a total area of 243.51m², therefore not complying with this requirement.

There is no approved building envelope on the application site, therefore the proposed development does not comply with the controlled activity standard either.

Rule 10.7.5.1.6 Stormwater Management requires that the maximum proportion or amount of the gross floor area which may be covered by buildings and other impermeable surfaces shall be 10% or 600m² whichever is lesser.

The total impermeable surfaces within Lot 10 is 574.4m² consisting of House 234.51m², Gravel Drive – 339.89m² (being approximately 6%).

This increases further once the shares in the JOAL Lot 13 (Wagener Grove – private accessway) is also included to approximately 11%. However, it is noted that the stormwater management for Lot 13 for the impermeable surfaces was implemented as part of the approved subdivision consent (RC2010082).

The proposed development meets all other relevant rules regarding development under the District Plan.

A full assessment of the relevant District Plan rules is included in **Appendix C**.

4.2 Proposed District Plan (PDP)

The proposed development/activity is subject to the PDP provisions.

The PDP was publicly notified on the 27th of July 2022. The submissions and further submission periods have now closed.

PDP hearings have been underway since May 2024.

As no decisions on the submissions have yet been made, little weight is attributed to the proposed provisions at this time.

The proposed zoning for the application site is Coastal Living.

The site also identified as a Treaty Settlement Area of Interest.

An assessment of the proposed development/activity against the PDP rules that have immediate legal effects are set out below:

RULE	**COMPLIANCE**
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.
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.

Historic Heritage	
All rules have immediate legal effect (HH-R1 to HH-R10). Schedule 2 has immediate legal effect.	Not applicable
Notable Trees	
All rules have immediate legal effect (NT-R1 to NT-R9)	The proposal will comply with these requirements; no pruning or removal is proposed. No works will be undertaken within the rootzone of the notable tree.
Sites and Areas of Significance to Maori	
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 scheduled sites or areas of significance to Māori.
Ecosystems and Indigenous Biodiversity	
All rules have immediate legal effect (IB-R1 to IB-R5)	Not applicable. The site does not contain any known ecosystems or indigenous biodiversity to which these rules would apply.
Subdivision	
The following rules have immediate legal effect: SUB-R6, SUB-R13, SUB-R14, SUBR15, SUB-R17.	Not applicable.
Activities on the Surface of Water	
All rules have immediate legal effect (ASW-R1 to ASW-R4).	Not applicable
Earthworks	
The following rules have immediate legal effect: EW-R12, EW-R13 The following standards have immediate legal effect: EW-S3, EW-S5.	All earthworks in all zones are subject to Accidental Discovery Protocol standards EW-S3 and sediment control standards EW-S5. Any earthworks will be undertaken in accordance with these standards.
Signs	
The following rules have immediate legal effect: SIGN-R9, SIGN-R10	Not applicable – no signage is proposed

All standards have immediate legal effect but only for signs on or attached to a scheduled heritage resource or heritage area	
Orongo Bay Zone	
Rule OBZ-R14 has partial immediate legal effect because RD1(5) relates to water	Not applicable

4.3 Overall Status of the Application

Overall, the status of the application is considered to be a Discretionary Activity.

5.0 Application Assessment

5.1 Statutory Considerations

5.1.1 Relevant Section of the RMA

When considering an application for a Discretionary activity the Council as consent authority must have regard to Part 2 of the RMA ("Purposes and Principles" – sections 5 to 8), and sections 104, 104B and 108 of the RMA.

Subject to Part 2 of the RMA, when considering an application for resource consent and any submissions received the Council must, in accordance with section 104(1) of the RMA have regard to the matters addressed in 5.2 – 5.7 below.

5.2 Section 104(1)(a) Actual and Potential Effects on the Environment

Section 104(1)(a) of the RMA requires that a council have regard to any actual and potential effects on the environment of allowing the activity.

5.2.1 Permitted Baseline / Existing Environment

Pursuant to section 104(2), when forming an opinion for the purposes of section 104(1)(a) a council may disregard an adverse effect of the activity on the environment if the plan or a NES permits an activity with that effect (i.e. a council may consider the "permitted baseline").

The permitted baseline refers to activities permitted on the subject site including activities that could be conducted on the site without resource consent. The existing environment includes activities that could be carried out under a granted but unexercised resource consent. Application of the permitted baseline test is discretionary and allows adverse effects arising from these activities to be disregarded and only adverse effects arising from the proposal over and above the permitted baseline are to be assessed. The existing environment is not discretionary; and it forms the backdrop for assessing the effects of the proposal on the environment; the only exception being if it was unlikely that an unimplemented consent would be implemented.

With respect to the application site, there is no permitted baseline, as even a building with a gross floor area less than $50m^2$ would not comply with the stormwater management rule (Rule 10.7.5.1.6) as a result of the JOAL's Lot 13 (Wagener Grove – private accessway) being included.

Visual, Amenity and Character values

The subject site is located within an area that is predominantly used for residential activities on larger allotments. The site is not located within an outstanding landscape and does not contain any outstanding landscape features.

All of the adjoining lots are of a similar size, some have been developed with residential dwellings and others are vacant lots. The sites have retained the natural vegetation on all boundaries.

The proposed dwelling is of an average size and scale, being modest in design. It is therefore considered that the proposal is not visually obtrusive and is considered consistent with the character of the buildings within the locality.

The building has been located in the most suitable location within the allotment and is over 18 metres from every boundary. The proposal complies with the setback and sunlight provisions for the zone.

The proposed dwelling will be set back over 130 metres from the State Highway, being accessed via a private access way (JOAL) and over 540 metres from Houhora Harbour. Due to the significant distance from the subject site to the Houhora Harbour as well as the State Highway, and with the existing vegetation and buildings, the subject site is unlikely to be visible from either the Houhora Harbour or the State Highway.

Due to the subject site being over 1 hectare in area, there is ample area for open space for the applicants to enjoy and which will also provide visual and noise mitigation for/from neighbouring properties.

The topography of the site is relatively flat, and therefore minimal earthworks are required to establish the building platform and associated access/driveway.

The existing vegetation acts as a visual barrier between the proposed dwelling location and neighbouring properties as well as the coastal environment.

The applicant is aware that the colour scheme is to be within the BS 5252 colour range, with a LVR of 30% or less and it is the intention of the applicant to provide this natural recessive colour scheme to council. It is anticipated the following condition of consent will be imposed:

'The dwelling is to be finished according to the approved colour scheme within the BS 5252 Colour Range with a LRV of 30% or less. The building is to be finished in accordance with the approved schedule within six months of completion of the exterior of the building and maintained for the duration of the consent.'

The use of recessive colours for the dwelling, which will have an LRV of less than 30%, and existing vegetation will blend the proposed dwelling into the background, providing further mitigation of any visual effects.

The nearest neighbouring dwelling is over 100 metres away, with existing vegetation combined with the physical separation distance from the proposed dwelling acting as a visual buffer from neighbouring properties. The proposed dwelling is orientated towards the north and it is considered that this proposal will not affect the privacy, outlook or enjoyment of private open space for any of the adjacent sites.

Overall, the proposal is considered to have less than minor effects on the visual amenity and character of the surrounding environment.

<u>Stormwater</u>

The impermeable surfaces are predominantly made up of the access to the site via JOAL (Lot 13) and the internal driveway, which will be metalled.

The stormwater management for Lot 13 (JOAL) was implemented as part of the approved subdivision consent RC2010082, hence stormwater from the private accessway has already been adequately dealt with. The drainage patterns of the impermeable surfaces within Lot 13 will remain unchanged.

The application site is over 1 hectare in area and is considered to have ample availability for stormwater on site.

The site is not located near any water bodies and any runoff will not be directed towards adjacent sites.

Two water tanks are proposed which will be used to collect water and provide retention/attenuation of stormwater. The site also contains existing drains and overland flow paths that can adequately deal with stormwater. There are existing natural water course drains along each of the site boundaries which collect and direct stormwater, eventually into the Raio Creek. These drains were part of the stormwater management approved under RC2010082.

The water tanks and existing drains are considered to be of a low impact design.

Minimal earthworks are required and therefore the proposal will retain the natural contours over the majority of the site.

The soils have been classified as predominantly Tangatiki sand and Houhora sand which is considered to be moderately to well drained. The physical qualities of the soil type will also remain unchanged as a result of this proposal as what is currently in existence will remain unchanged.

It is considered that there will be no effect on the life supporting capacity of soils.

Stormwater retention/attenuation within Lot 10 will be achieved by way of the two proposed water tanks, and the use of a spreader bar, existing natural overland flowpaths, and water course drains. It is considered that these measures will adequately and effectively mitigate any potential adverse stormwater effects.

It is noted that the Stormwater Assessment Report (**Appendix F)** submitted in support of the application was prepared prior to the internal garaging being removed so includes calculations for a larger building footprint, however updated calculations to reflect the amended plans/reduced proposal are included.

Natural Hazards and Open Space
There are no other known natural hazards identified on this site.

Cumulative Effects
Over time cumulative effects can arise. These effects can be created through incremental changes that are created by activities. Overall, it is considered that potential cumulative effects of the development are less than minor.

Physical works
The proposal requires minimal earthworks to be undertaken to establish the building foundations. The development will result in minimal physical works on the property.

Effects on the neighbourhood and the wider community (social, economic or cultural effects)
The proposal will result in a residential dwelling being constructed on the site. The proposed dwelling is considered to be consistent with the character of the locality. The subject site does not contain any known sites of cultural significance. Overall, it is considered that the proposal will result in positive effects on the wider community. The proposal will not result in any adverse social, economic or cultural effects.

Effects on Ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity.
The application is not considered to affect any such ecosystems.

Any effect on Natural and Physical Resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present and future generations.
No effects on these values are considered to be generated by the proposal.

Any Discharge of Contaminants into the Environment; including any unreasonable emission of noise, and options for the treatment and disposal of contaminants.
No discharge of contaminants is proposed.

Any risk to the Neighbourhood, the Wider Community, or the environment through natural hazards or the use of any hazardous substances or hazardous installations.
There are no known hazards or hazardous substances that will arise as a result of this proposal.

5.2.2 Adverse Effects Conclusion
In summary, it is considered that subject to compliance with conditions, the adverse effects of the activity on the environment would be no more than minor.

5.3 Section 104(1)(b)(vi) Relevant Provisions of the District Plan - Objectives and Policies

Proposed District Plan

The relevant objectives and policies of the Plan are those related to the Coastal Environment and the Coastal Living Zone.

The proposal is considered to create no more than minor adverse effects on the coastal environment. The proposal is considered to be consistent with the coastal character of the surrounding area and is considered to have negligible effects on the coastal amenity value of the area. It is also considered that the size and scale of the dwelling is not visually obtrusive.

In addition to this the building will be finished in natural and recessive colours.

The proposal is considered to be consistent with the objectives and policies of the Plan.

5.3.2.1 ***Assessment of the objectives and policies within the Coastal Living Zone***

Objectives

10.7.3.1 To provide for the well being of people by enabling low density residential development to locate in coastal areas where any adverse effects on the environment of such development are able to be avoided, remedied or mitigated.
The subject site is over one hectare in area. The proposal is for a 243.51m^2 residential dwelling building. It is considered that the design of the building is average in scale and of modest design which is not objectionable to the existing development in the locality. There is adequate area on the site which can be utilised as open space. The proposal is considered to be of low density and to not create any adverse visual effects. It is considered that there are no adverse effects as a result of the proposal.

10.7.3.2 To preserve the overall natural character of the coastal environment by providing for an appropriate level of subdivision and development in this zone.
The subdivision that created the application site has been recently completed and it is considered that the subject site was created with the intention of a residential dwelling being located on the site. The proposal is average in scale and is not considered objectionable to the surrounding development. It is considered that the proposal will not have any adverse effects on the natural character of the coastal environment.

Policies

10.7.4.1 That the adverse effects of subdivision, use, and development on the coastal environment are avoided, remedied or mitigated.
Due to the scale and design of the building, in addition to of the location in regard to the site boundaries, it is considered that any visual effects will be less than minor.
The subject site is located over 540 metres from the Houhora Harbour and it is therefore considered that the development will have less than minor effects on the coastal environment.

10.7.4.2 That standards be set to ensure that subdivision, use or development provides adequate infrastructure and services and maintains and enhances amenity values and the quality of the environment.
The subject site does not benefit from Council's reticulated services and an on-site system and methods will be required. The onsite effluent system will utilise secondary treatment as per the recommendations in **Appendix D.** It is considered that the proposal will maintain and enhance the amenity values and quality of the environment.

10.7.4.3 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the zone in regards to s6 matters, and shall avoid adverse effects as far as practicable by using techniques including: (b) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land and the coastal marine area;
The design of the dwelling is modest in design and scale and with the use of a natural, recessive colour scheme, will not create any adverse visual effects or be objectionable in the locality. Existing vegetation will also further mitigate any visual effects as well as the flat topography of the site and significant distance from neighbouring properties, the coastal environment and the State Highway. It is therefore considered that the proposal enhances and restores the character of the zone and any visual effects are mitigated through the existing vegetation and the natural recessive colour scheme.

Overall, the proposal is considered to be consistent with the objectives and policies of the Plan.

Proposed District Plan

The following objectives and policies of the Proposed District Plan are considered relevant:

RLZ-O1 The Rural Lifestyle zone is used predominantly for low density residential activities and small scale farming activities that are compatible with the rural character and amenity of the zone.

RLZ-O2 The predominant character and amenity of the Rural Lifestyle zone is characterised by:

- *a) low density residential activities;*
- *b) small scale farming activities with limited buildings and structures;*
- *c) smaller lot sizes than anticipated in the Rural Production Zone;*
- *d) a general absence of urban infrastructure;*
- *e) rural roads with low traffic volumes;*
- *f) areas of vegetation, natural features and open space.*

RLZ-O3 The role, function and predominant character and amenity of the Rural Lifestyle zone is not compromised by incompatible activities.

RLZ-O4 Land use and subdivision in the Rural Lifestyle zone does not compromise the effective and efficient operation of primary production activities in the adjacent Rural Production Zones.

RLZ-P1 Enable activities that will not compromise the role, function and predominant character and amenity of the Rural Lifestyle zone, while ensuring their design, scale and intensity is appropriate to manage adverse effects in the zone, including:

- *a) low density residential activities;*
- *b) small scale farming activities;*
- *c) home business activities;*
- *d) visitor accommodation; and*
- *e) small scale education facilities.*

RLZ-P2 Avoid activities that are incompatible with the role, function and predominant character and amenity of the Rural Lifestyle zone because they are:

- *a) contrary to the density anticipated for the Rural Lifestyle zone;*
- *b) predominately of an urban form or character;*
- *c) primary production activities, such as intensive indoor primary production, that generate adverse amenity effects that are incompatible with rural lifestyle living; or*
- *d) commercial, rural industry or industrial activities that are more appropriately located in a Settlement zone or an urban zone.*

RLZ-P3 Avoid where possible, or otherwise mitigate, reverse sensitivity effects from sensitive and other non-productive activities on primary production activities in the adjacent Rural Production zone.

RLZ-P4 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) consistency with the scale and character of the rural lifestyle environment;*
- *b) location, scale and design of buildings or structures;*
- *c) at zone interfaces:*
- *d) any setbacks, fencing, screening or landscaping required to address potential conflicts;*

e) the extent to which adverse effects on adjoining or surrounding sites are mitigated and internalised within the site as far as practicable;

f) the capacity of the site to cater for on-site infrastructure associated with the proposed activity;

g) the adequacy of roading infrastructure to service the proposed activity;

h) managing natural hazards;

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

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

Discussion

The role of the Rural Lifestyle zone is to provide an area specifically for rural lifestyle living. Accommodating the demand for rural lifestyle living in appropriate areas of the district, close to transport routes with good access to services in urban areas and settlements, is intended to reduce ad-hoc or sporadic rural lifestyle development throughout the Rural Production zone that adversely impacts on primary production activities.

This zone also enables people to undertake primary production activities, or primarily undertake a residential activity while having the option of growing their own food, or having horses or other livestock at a domestic scale.

This zone is characterised by open space and vegetated landscapes, interspersed by farm buildings, structures and residential units.

The zone is expected to provide an appropriate transition from rural residential areas to the Rural Production zone, while retaining a sense of spaciousness and rural character. For this reason, rural lifestyle character and amenity are managed through density rules and the consideration of building locations at the time of subdivision, in addition to the use of building setback controls from boundaries.

The proposal would result in a new dwelling being constructed on a vacant rural-lifestyle allotment. It is considered that the design and scale of the proposed dwelling is appropriate such that any adverse effects can be managed such that existing character and amenity values will be maintained.

5.4 Section 104(1)(b)(v) Relevant Provisions of the Regional Policy Statement

The Operative Regional Policy Statement ("RPS") for Northland contains high level policy guidance for development. The subject site does not contain any significant features as defined by the RPS and therefore consideration of the RPS provisions is limited to matters under the following objectives:

- Objective 3.11 Regional Form

Several underpinning policies are also relevant to this application, including:

Policy 5.1.1 - Planned and coordinated development
Subdivision, use and development should be located, designed and built in a planned and co-ordinated manner which:
(a) Is guided by the 'Regional Form and Development Guidelines' in Appendix 2;
(b) Is guided by the 'Regional Urban Design Guidelines' in Appendix 2 when it is urban in nature;
(c) Recognises and addresses potential cumulative effects of subdivision, use, and development, and is based on sufficient information to allow assessment of the potential long-term effects;
(d) Is integrated with the development, funding, implementation, and operation of transport, energy, water, waste, and other infrastructure;

(e) Should not result in incompatible land uses in close proximity and avoids the potential for reverse sensitivity;
(f) Ensures that plan changes and subdivision to / in a primary production zone, do not materially reduce the potential for soil-based primary production on land with highly versatile soils10, or if they do, the net public benefit exceeds the reduced potential for soil-based primary production activities; and
(g) Maintains or enhances the sense of place and character of the surrounding environment except where changes are anticipated by approved regional or district council growth strategies and / or district or regional plan provisions.
(h) Is or will be serviced by necessary infrastructure.
Note: in determining the appropriateness of subdivision, use and development (including development in the coastal environment – see next policy), all policies and methods in the Regional Policy Statement must be considered, particularly policies relating to natural character, features and landscapes, heritage, natural hazards, indigenous ecosystems and fresh and coastal water quality.

Policy 5.1.3 - Avoiding the adverse effects of new use(s) and development
Avoid the adverse effects, including reverse sensitivity effects of new subdivision, use and development, particularly residential development on the following:
(a) Primary production activities in primary production zones (including within the coastal marine area);
(b) Commercial and industrial activities in commercial and industrial zones;
(c) The operation, maintenance or upgrading of existing or planned regionally significant infrastructure; and
(d) The use and development of regionally significant mineral resources

The application site is located within a rural context and is in close proximity to the Pukenui township with the surrounding area being characterised by a mixture of both rural-residential lots and larger rural landholdings, as noted in earlier parts of this report. Given that this proposal is for residential use, there are no adverse effects on the viability of adjoining rural landholdings and activities, which already function well with several other 'lifestyle' allotments in close proximity. As a result, it is considered that the proposal is consistent with the RPS.

No other Regional Policy Statements are relevant to this proposal.

The proposal does not require any consent under the Proposed Regional Plan for Northland.

5.5 Section 104(1)(b)(i) and (ii) Relevant provisions of National Environmental Standards and other regulations, Section 104(1)(b)(iii) Relevant provisions of National Policy Statements, Section 104(1)(b)(iv) Relevant provisions of the New Zealand Coastal Policy Statement (NZCPS)

No National Environmental Standards are considered relevant to the proposal.

The New Zealand Coastal Policy Statement (NZCPS) is not considered to be relevant in this instance. The application site is not located within the immediate coastal environment under the Regional Policy Statement (RPS).

5.6 Section 104(1)(c) Any other matters considered relevant and reasonably necessary to determine the application

There are no matters that are considered necessary to determine the application.

6.0 Notification

Public Notification

Having undertaken the s95A public notification tests, the following conclusions are reached:

- Public notification is not mandatory as the applicant has not requested it, there are no outstanding or refused requests for further information, and the application does not involve any exchange of recreation reserve land under s15AA of the Reserves Act 1977.
- Public notification is not precluded due to certain circumstances.

- Public notification is not required as the proposed development will have no more than minor adverse effects on the environment.
- Under step 4, there are no special circumstances that warrant the application being publicly notified because there is nothing unique or unusual about the proposal or subject site that gives rise to special circumstances.

Limited Notification

Having undertaken the s95B limited notification tests, the following conclusions are reached:

- Limited notification is not mandatory.
- There is no rule of NES that specifically precludes limited notification of the activities, and the application is for an activity other than those specified in s95B(6)(b).
- Limited notification is not required as it is considered that the activity will not result in any adversely affected persons.
- There are no special circumstances that warrant the application being limited notified to any other persons.

It is therefore considered that this application can be processed without notification.

7.0 Consideration of Part 2 (Purpose and Principles) of the RMA

Section 5 in Part 2 identifies the purpose of the RMA as being the sustainable management of natural and physical resources. This means managing the use of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

In considering the provisions of Section 5, the proposed development is consistent with the character of the surrounding area, and with the topography and character of the site. The proposal would therefore use and develop the physical resources of the site in a manner that would continue to enable the applicant to provide for their future social and economic wellbeing. At the same time the proposal sufficiently avoids, remedies or mitigates adverse effects on the roading network, sensitive receiving environments, amenity and character of the surrounding environment.

Section 6 of the Act sets out a number of matters of national importance which need to be recognised and provided for and includes among other things and in no order of priority, the protection of outstanding natural features and landscapes, the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna, and the protection of historic heritage.

As discussed previously in this report, the proposed development does not detract from the natural character of the coastal environment and is not located within any outstanding natural landscape. The proposal does not restrict access to the coastal environment.

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 and includes the efficient use of natural and physical resources, and the maintenance and enhancement of amenity values.

Pursuant to Section 7(b) particular regard shall be had to the efficient use and development of natural and physical resources. In this case, the proposed development of the application site and would not compromise the environment or generate any adverse effects, allowing for the efficient use of the physical resources of the site while avoiding adverse effects on the environment.

Pursuant to 7(c) particular regard shall be had to the maintenance and enhancement of amenity values. In this case, the proposal is consistent with, and would maintain the character and amenity values of the surrounding environment.

Pursuant to 7(g) particular regard shall be had to maintenance and enhancement of the environment. In this case, the stormwater and wastewater will be treated and managed within the site boundaries and suitable erosion and sediment control measures will remain in place during any site works, therefore maintaining the health of the surrounding environment.

Section 8 requires a council to take into account the principles of the Treaty of Waitangi. The proposed development does not raise any Treaty of Waitangi issues.

The proposal is considered to be an efficient use of resources, providing further upgraded residential living opportunities. Overall, it is considered that the application meets the relevant provisions of Part 2 of the RMA, achieving the purpose of the RMA being sustainable management of natural and physical resources.

8.0 Lapsing of Consent

Section 125 of the RMA provides that if a resource consent is not given effect to within five years of the date of the commencement (or any other time as specified) it automatically lapses unless the consent authority has granted an extension. In this case, it is considered five years is an appropriate period.

9.0 Conclusion

The proposal is a land use consent to construct new residential dwelling on the application site.

It is concluded that any actual or potential effects on the surrounding environment will be no more than minor; and that the proposed development would be consistent with the relevant objectives and policies of the District Plan.

Overall, it is considered that the proposed development achieves the purpose and principles of the RMA and that the consent sought should be granted.

Prepared by:

Kim Nathan
SENIOR PLANNER

Appendix A: Plans

Appendix B: Record of Title

Rule 10.7.5.1.1 Visual Amenity	**Status**
The following are permitted activities in the Coastal Living Zone: (a) any new building(s), provided that the gross floor area of any new building(s) permitted under this rule does not exceed 50m²; or (b) any alteration/addition to an existing building which does not exceed 30% of the gross floor area of the building which is being altered or added to, provided that any alteration/addition does not exceed the height of the existing building and that any alteration/addition is to a building that existed at 28 April 2000. (c) replacement of any building so long as the replacement does not exceed the building envelope occupied by the previous building; or (d) renovation or maintenance of any building.	Does not Comply - The proposed new building has a gross floor area greater than 50m².
Rule 10.7.5.1.2 Residential Intensity	**Status**
Residential development shall be limited to one unit per 4ha of land. In all cases the land shall be developed in such a way that each unit shall have at least 3,000m² for its exclusive use surrounding the unit plus a minimum of 3.7ha elsewhere on the property. Except that this rule shall not limit the use of an existing site or a site created pursuant to Rule 13.7.2.1 (Table 13.7.2.1) for a single residential unit for a single household.	Complies – The proposed dwelling will be the first on the application site.
Rule 10.7.5.1.3 Scale of Activities	**Status**
The total number of people engaged at any one period of time in activities on a site, including employees and persons making use of any facilities, but excluding people who normally reside on the site or are members of the household shall not exceed 1 person per 2,000m² of net site area. Provided that: (a) this number may be exceeded for a period totalling not more than 60 days in any 12 month period where the increased number of persons is a direct result of activities ancillary to the primary activity on the site; and (b) this number may be exceeded where persons are engaged in constructing or establishing an activity (including environmental enhancement) on the site; and (c) this number may be exceeded where persons are visiting marae. In determining the total number of people engaged at any one period of time, the Council will consider the maximum capacity of the facility (for instance, the number of beds in visitors accommodation, the number of seats in a restaurant or theatre), the number of staff	N/A

needed to cater for the maximum number of guests, and the number and nature of the vehicles that are to be accommodated on site to cater for those engaged in the activity.	
Rule 10.7.5.1.4 Building Height	**Status**
The maximum height of any building shall be 8m	Complies – see plans (Appendix A)
Rule 10.7.5.1.5 Sunlight	**Status**
No part of any building shall project beyond a 45 degree recession plane as measured inwards from any point 2m vertically above ground level on any site boundary (refer to definition of Recession Plane in Chapter 3 - Definitions), except where a site boundary adjoins a legally established entrance strip, private way, access lot, or access way serving a rear site, the measurement shall be taken from the farthest boundary of the entrance strip, private way, access lot, or access way.	Complies – see plans (Appendix A)
Rule 10.7.5.1.6 Stormwater Management	**Status**
The maximum proportion or amount of the gross site area which may be covered by buildings and other impermeable surfaces shall be 10% or 600m2 whichever is the lesser.	Does not comply – The proposed development will exceed maximum impermeable surfaces.
Rule 10.7.5.1.7 Setbacks from Boundaries	**Status**
Buildings shall be set back a minimum 10m from any site boundary, except that on any site with an area less than 5,000m² this set back shall be 3m from any site boundary.	Complies – see plans (Appendix A)
Rule 10.7.5.1.8 Screening for neighbours non-residential activities	**Status**
Except along boundaries adjoining a Commercial or Industrial zone, outdoor areas providing for activities such as parking, loading, outdoor storage and other outdoor activities associated with non-residential activities on the site shall be screened from adjoining sites by landscaping, wall/s, close boarded fence/s or trellis/es or a combination thereof. They shall be of a height sufficient to wholly or substantially separate these areas from the view of neighbouring properties. Structures shall be at least 1.8m in height, but no higher than 2.0m, along the length of the outdoor area. Where such screening is by way of landscaping it shall be a strip of vegetation which has or will attain a minimum height of 1.8m for a minimum depth of 2m.	N/A
Rule 10.7.5.1.9 Transportation	**Status**
Refer sto Chapter 15 – Transportation for Traffic, Parking and Access rules.	Complies
Rule 10.7.5.1.10 Hours of operation non-residential activities	**Status**

(a) The maximum number of hours the activity shall be open to visitors, clients or deliveries shall be 50 hours per week; and (b) Hours of operation shall be limited to between the hours: 0700 - 2000 Monday to Friday 0800 - 2000 Saturday, Sunday and Public Holidays Provided that this rule does not apply: (i) where the entire activity is located within a building; and (ii) where each person engaged in the activity outside the above hours resides permanently on the site; and (iii) where there are no visitors, clients or deliveries to or from the site outside the above hours.	N/A
Rule 10.7.5.11 Keeping of animals	**Status**
Any building, compound, or part of a site used for factory farming, boarding kennels or a cattery, shall be located no closer than 50m from any site boundary, except for a boundary which adjoins the Residential, Coastal Residential or Russell Township Zones, where the distance shall be a minimum of 600m.	N/A
Rule 10.7.5.1.12 Noise	**Status**
All activities shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits as measured at or within the boundary of any other site in this zone, or at any site in the Residential, Russell Township or Coastal Residential Zones, or at or within the notional boundary at any dwelling in any other rural or coastal zone: 0700 to 2200 hours 55 dBA L10 2200 to 0700 hours 45 dBA L10 and 70 dBA Lmax.	Complies
Rule 10.7.5.1.13 Helicopter Landing area	**Status**
A helicopter landing area shall be at least 200m from the nearest boundary of any of the Residential, Coastal Residential, Russell Township or Point Veronica Zones.	N/A

Appendix D: On-site Wastewater Assessment

Appendix E: Geotechnical Report

Appendix F: Stormwater Assessment Report

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier **95372**

Land Registration District **North Auckland**

Date Issued 26 January 2005

Prior References
NA1536/18

Estate Fee Simple
Area 1.0052 hectares more or less
Legal Description Lot 10 Deposited Plan 323666
Registered Owners
Jake Andrew Currin and Ella Kathryn Harris

Estate Fee Simple - 1/11 share
Area 6224 square metres more or less
Legal Description Lot 13 Deposited Plan 323666
Registered Owners
Jake Andrew Currin and Ella Kathryn Harris

Interests

D574558.1 Gazette Notice declaring part State Highway No.1F Far North District commencing on the eastern side of the highway at the intersection with Hendersons Bay Road and on the western side of the highway at the northern boundary and proceeding in the southerly direction to the intersection with State Highway No.10 to be a limited access road - 25.1.2001 at 12.09 pm

6290071.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 26.1.2005 at 9:00 am

Subject to Section 241(2) Resource Management Act 1991 (affects DP 323666)

Subject to a right (in gross) to a telecommunications easement over part marked A on DP 323666 in favour of Telecom New Zealand Limited created by Easement Instrument 6290071.5 - 26.1.2005 at 9:00 am

The easements created by Easement Instrument 6290071.5 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to transmit electricity easement over part marked A on DP 323666 in favour of Top Energy Limited created by Easement Instrument 6290071.6 - 26.1.2005 at 9:00 am

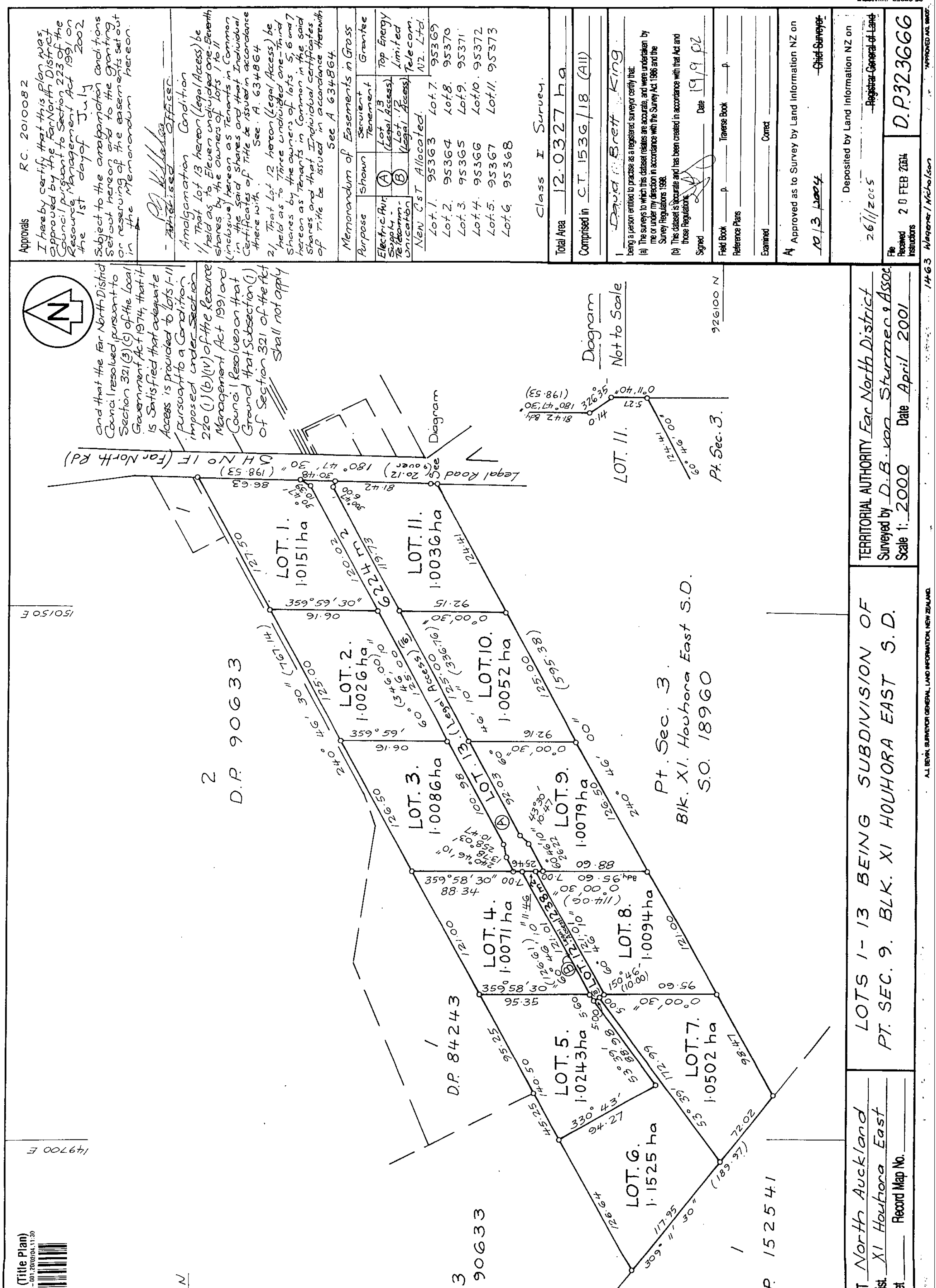
The easements created by Easement Instrument 6290071.6 are subject to Section 243 (a) Resource Management Act 1991

Land Covenant in Easement Instrument 6290071.7 - 26.1.2005 at 9:00 am

Fencing Covenant in Transfer 6379087.2 - 12.4.2005 at 9:00 am

11016062.2 Notice pursuant to Section 91 Transit New Zealand Act 1989 - 26.1.2018 at 3:17 pm

12904453.2 Mortgage to ASB Bank Limited - 21.12.2023 at 10:59 am


LOTS 1 - 13 BEING SUBDIVISION OF
PT. SEC. 9. BLK. XI HOUHORA EAST S.D.
LAND DISTRICT North Auckland
Survey Blk. & Dist. XI Houhora East
NZMS 261 Sheet
Record Map No.
TERRITORIAL AUTHORITY Far North District
Surveyed by D.B. von Sturmer & Assoc
Scale 1: 2000
Date April 2001
D.P.323666
Total Area 12.0327 ha
Comprised in C.T. 153G/18 (All)
Class II Survey
LOT. 1. 1.0151 ha
LOT. 2. 1.0026 ha
LOT. 3. 1.0086 ha
LOT. 4. 1.0071 ha
LOT. 5. 1.0243 ha
LOT. 6. 1.1525 ha
LOT. 7. 1.0502 ha
LOT. 8. 1.0094 ha
LOT. 9. 1.0079 ha
LOT. 10. 1.0052 ha
LOT. 11. 1.0036 ha
Pt. Sec. 3 BLK. XI. Houhora East S.D. S.O. 18960
D.P. 90633
D.P. 84243
D.P. 152541
S H No 1F (Far North Rd)
Legal Road
Diagram Not to Scale
Memorandum of Easements in Gross
New CT Allocated
Lot. 1. 95363
Lot. 2. 95364
Lot. 3. 95365
Lot. 4. 95366
Lot. 5. 95367
Lot. 6. 95368
Lot. 7. 95369
Lot. 8. 95370
Lot. 9. 95371
Lot. 10. 95372
Lot. 11. 95373
Approvals RC. 2010082
Deposited by Land Information NZ on 26/1/2005
LT 323666 (Title Plan)

Proposed Home for

Jake Currin & Ella Harris
Lot 10 Wagener Grove, Pukenui

MASON STREET

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	701	3D
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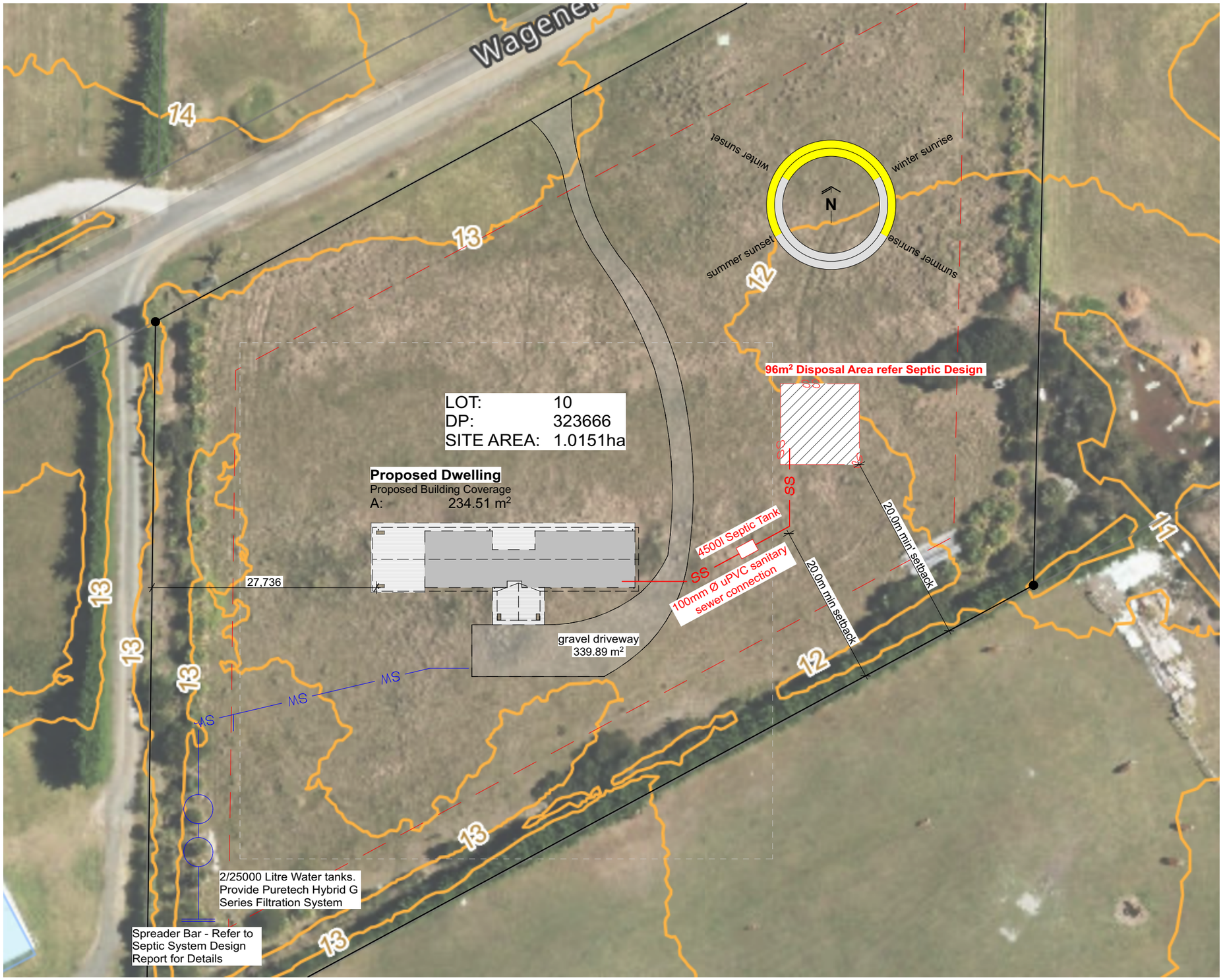
DISTRICT PLAN	
Environment Zone	Coastal Living
Max Building Height	8m
Building Setbacks	3m
DESIGN INFORMATION	
Wind Zone	High
Earthquake Zone	1
Exposure Zone	C
AREAS	
Site	10151m2
Total Building Coverage	234.51m2 (2.3%)



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Job Title
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Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

Drawn	KK
Checked	Kyle Kake_ BP130188
Print Date	7/10/25
Scale @ A3	1:500

Sheet Title
Site Plan

Sheet No.
101

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General Notes

All construction shall be carried out in accordance with NZBC, and NZS 3604:2011 + Amendments. Aswell to comply with any local authority bylaws.

Corrosion Zone 1,2,3,4:
Durability of fixings to comply with NZS 3604:2011 Section 4 and NZBC B2/AS1

ALL FIXINGS SUBJECT TO WEATHERING TO BE STAINLESS STEEL.
ALL FIXINGS WITHIN 600mm OF THE GROUND TO BE STAINLESS STEEL.

Timber Wall Framing

High Wind Zone
Studs all H1.2 SG8.

EXTERNAL LOADBEARING WALLS.
up to 2.7m 140 x 45 @ 600 crs
or
up to 2.7m 90 x 45 @ 400 crs

GABLE END WALLS.
up to 2.7 M 140 x 45 @ 600 crs

INTERNAL LOADBEARING WALLS.
up to 3.0m 90 x 45mm @ 600 crs

INTERNAL NON-LOADBEARING WALLS.
up to 2.7m 90 x 45mm @ 600 crs

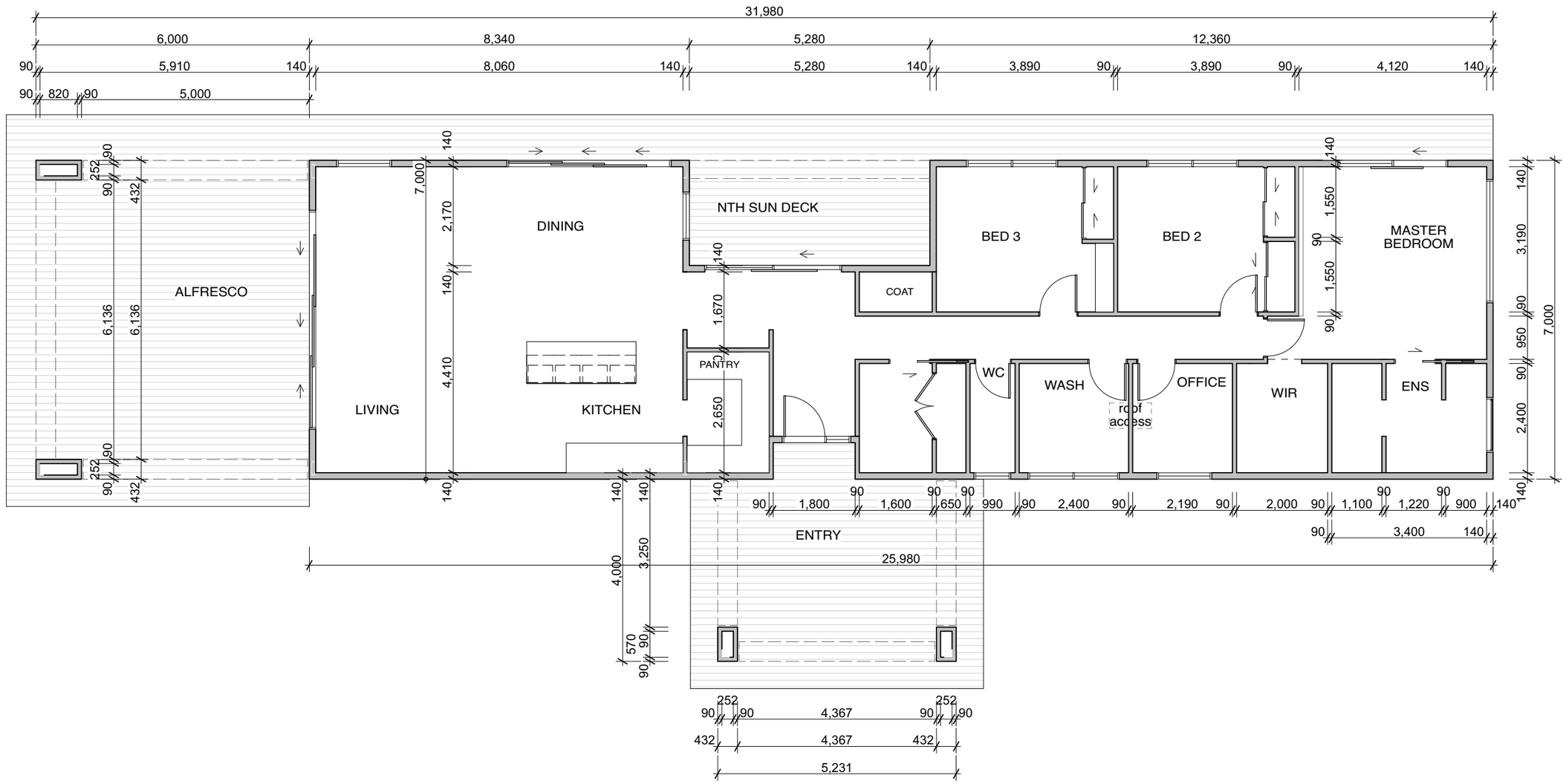
NOGS.
Provide nogs @ 600 max crs.

Stud to Top Plate Fixing

NZS3604 Type B
2/90 x 3.15 end nails + 2 wire dogs
OR alternative 4.7kN capacity fixing

Ground Level Timber Deck

Ground level Timber Deck exempt under Schedule 1 NZBC



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Print Date	7/10/25
Scale @ A3	1:100

Sheet Title
Wall Dimension Plan

Sheet No.
104

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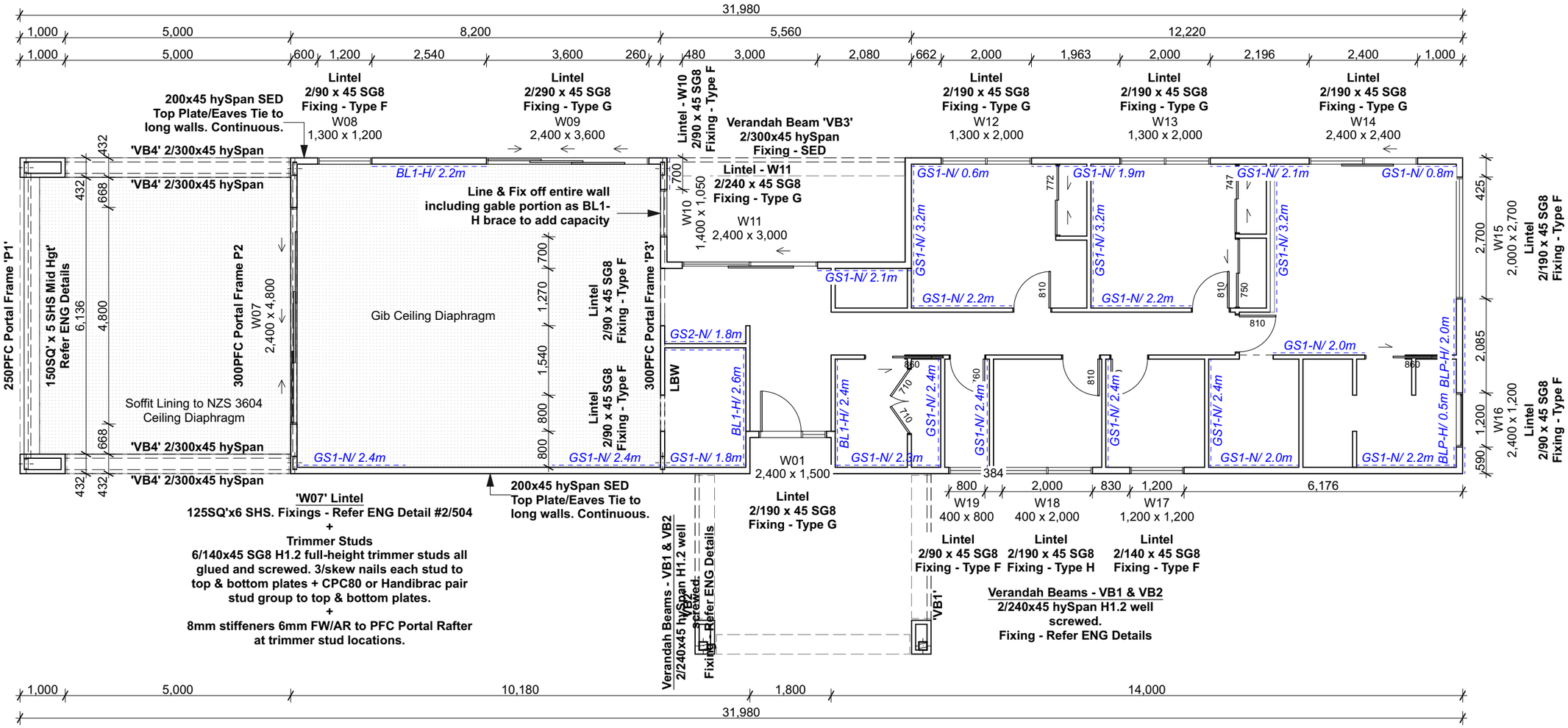
ALL FIXINGS SUBJECT TO WEATHERING TO BE STAINLESS STEEL.
ALL FIXINGS WITHIN 600mm OF THE GROUND TO BE STAINLESS STEEL.



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Scale @ A3	1:100

Sheet Title
Bracing Plan

Sheet No.
106

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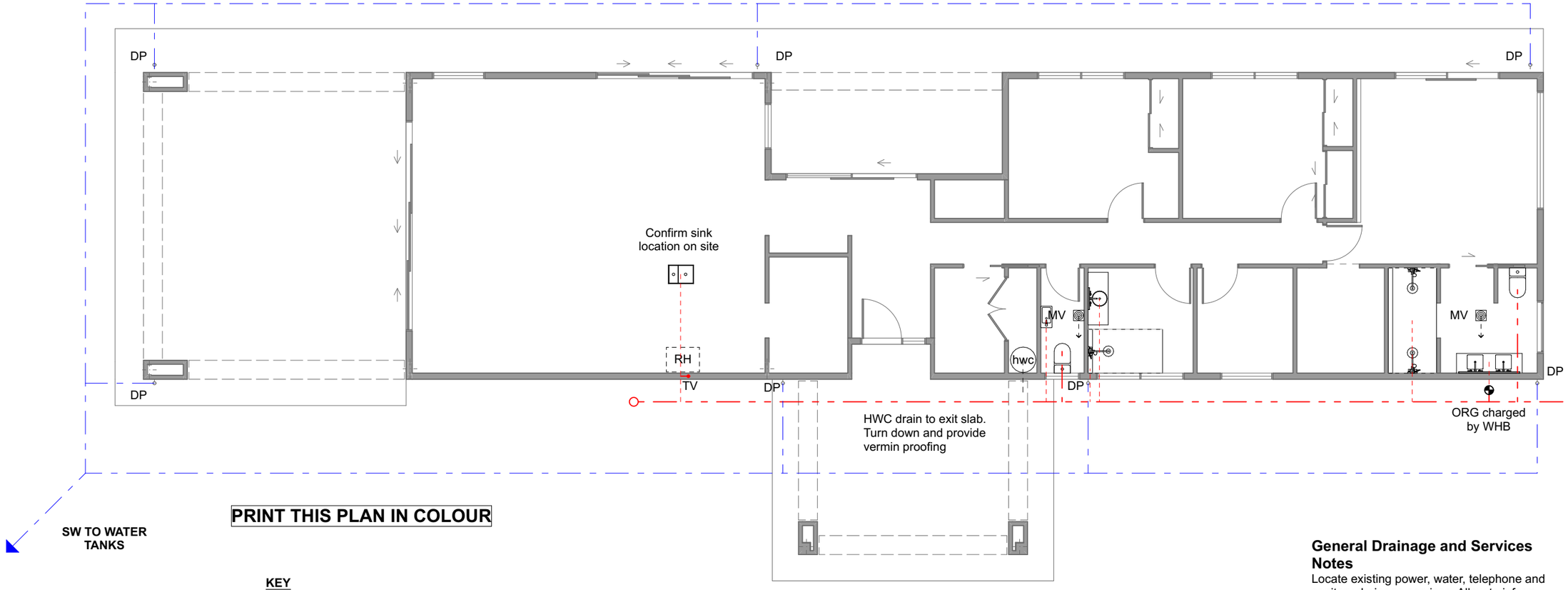

PRINT THIS PLAN IN COLOUR

KEY

	65 Ø PVC-U Sewer branch pipe Grade - 1:40
	100 Ø PVC-U Sewer Drain pipe Grade - 1:60
	100 Ø PVC-U Stormwater line Grade - 1:60
	ORG - 20mm above paved areas sloping away - 75mm above grass & garden areas - 150mm below finished floor level
TV	50 Ø Terminal Vent
	Rodding Point
DP	80 Ø PVC-U Downpipes
MV	Mechanical Vent
RH	Rangehood Vent over Hobbs

General Drainage and Services Notes

Locate existing power, water, telephone and sanitary drainage services. Allow to inform network operators as necessary

Plumbing and Drainage Notes.

All work to comply with NZBC, NZS3604 and all relevant local authority by laws and council regulations.

All drainage to comply with AS/NZS 3500 & NZBC G13

All drainage is Diagramatical, Drainlayer to determine on site drainage layout and provide asbuilt plan when complete.

Mechanical Ventilation

Provide Mechanical ventilation through wall penetration in all bathrooms and Mechanical ventilation via rangehood through wall penetration.
Mechanical extract fans (including associated ducting) must have a flowrate not less than:
a) 25L/s for showers and Baths.
b) 50L/s for cooktops.

Hotwater Cylinder

Hotwater Cylinder. Provide safe tray below, Temperature and Pressure relief Valve and Siesmic Restraint. Refer to specifications for more detail

MASON STREET
architectural drafting

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www.masonstreet.co.nz

Job Title
Proposed Home - Jake Currin & Ella Harris

Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

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Drawn	KK
Checked	Kyle Kake_ BP130188
Print Date	7/10/25
Scale @ A3	1:100

Sheet Title
Plumbing Plan

Sheet No.
107

General Notes
All construction shall be carried out in accordance with NZBC, and NZS 3604:2011 + Amendments. Aswell to comply with any local authority bylaws.

Corrosion Zone 1,2,3,4:
Durability of fixings to comply with NZS 3604:2011 Section 4 and NZBC B2/AS1

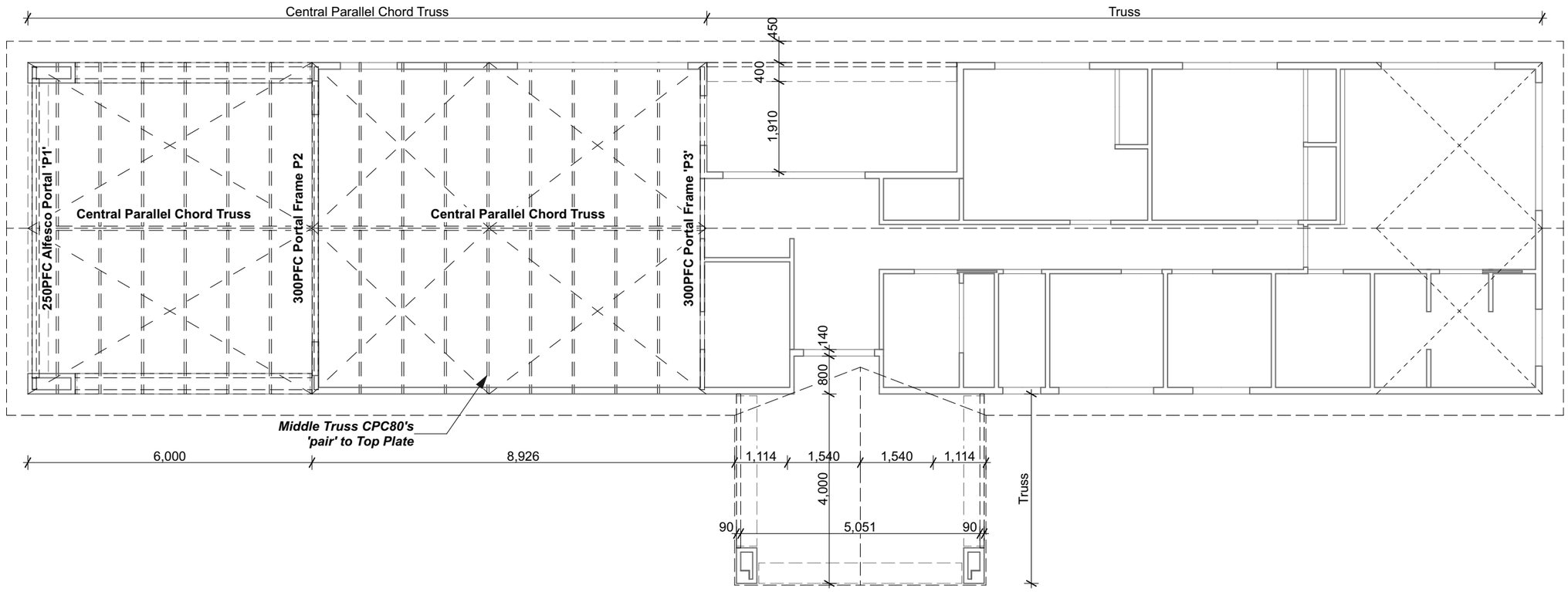
ALL FIXINGS SUBJECT TO WEATHERING TO BE STAINLESS STEEL.
ALL FIXINGS WITHIN 600mm OF THE GROUND TO BE STAINLESS STEEL.

Pre-fab Roof Trusses @ 900 crs
Prefabricated roof trusses at 900 crs to manufacturers specification. Manufacturer to supply producer statement

Purlins - On Flat High Wind Zone
90x45 H1.2 purlins on flat @900 crs. Purlin end span 600mm.
2.4kN Fixing: 1 Blue Screw OR Alternative 2.4kN fixing.

Lumberlok Strip Bracing - (Trusses)
A diagonally opposing pair of continuous Lumberlok strip brace with tensioners running continously from ridge, fixed to each top chord or rafter that is intersected, and to the top plate.

Multibrace Roof Plane Bracing
A diagonally opposing pair of continuous Lumberlok Multibrace steel strips with tensioners each having a capacity of 14.8 kN in tension, fixed to each top chord or rafter that is intersected, and to the top plate. Intersections to be at nearest truss.



MASON STREET
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Job Title
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Project Location
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Pukenui,
Whangarei

Drawn	KK
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Print Date	7/10/25
Scale @ A3	1:100

Sheet Title
Roof Framing Plan

Sheet No.
109

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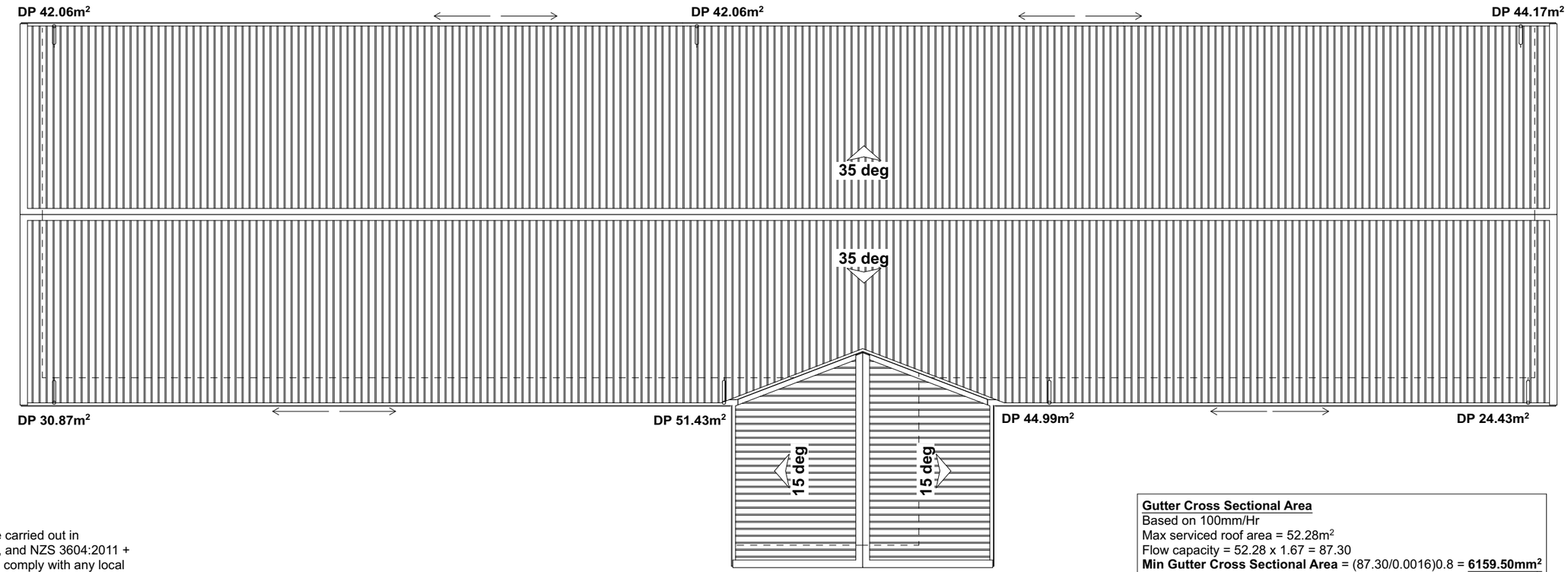

General Notes

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Corrosion Zone 1,2,3,4:
Durability of fixings to comply with NZS 3604:2011 Section 4 and NZBC B2/AS1

ALL FIXINGS SUBJECT TO WEATHERING TO BE STAINLESS STEEL.
ALL FIXINGS WITHIN 600mm OF THE GROUND TO BE STAINLESS STEEL.

Trapezoidal Roof Cladding

0.40mm thick Trapezoidal Colorsteel MAXAM roofing system over COVERTEK 407 Roof Underlay. 70x45 H1.2 purlins on flat @900crs, over H1.2 Rafters/Trusses. Fixing pattern: Every crest

Hardie Flex Soffit Lining

4.5mm Hardie Flex Soffit Lining. Selected colour paint finish.

Marley Pvc Spouting & Downpipes

Marley Pvc Spouting on 180x20 H3.1 preprimed Fascia (cut down to suit)

Bargeboard

190x20 H3.1 preprimed Bargeboard

Gutter Cross Sectional Area
Based on 100mm/Hr
Max serviced roof area = 52.28m²
Flow capacity = 52.28 x 1.67 = 87.30
Min Gutter Cross Sectional Area = (87.30/0.0016)0.8 = **6159.50mm²**

DP sizes - 74Ø DPs can serve 60m² of roof plane area.

Valley Gutter Note

250mm wide valley gutter to service a max roof plan area of 25m².
Max proposed roof plan area serviced by valley is 12.25m².

MASON STREET
architectural drafting

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Job Title
Proposed Home - Jake Currin & Ella Harris

Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

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Scale @ A3	1:100

Sheet Title
Roof Plan

Sheet No.
111

General Notes

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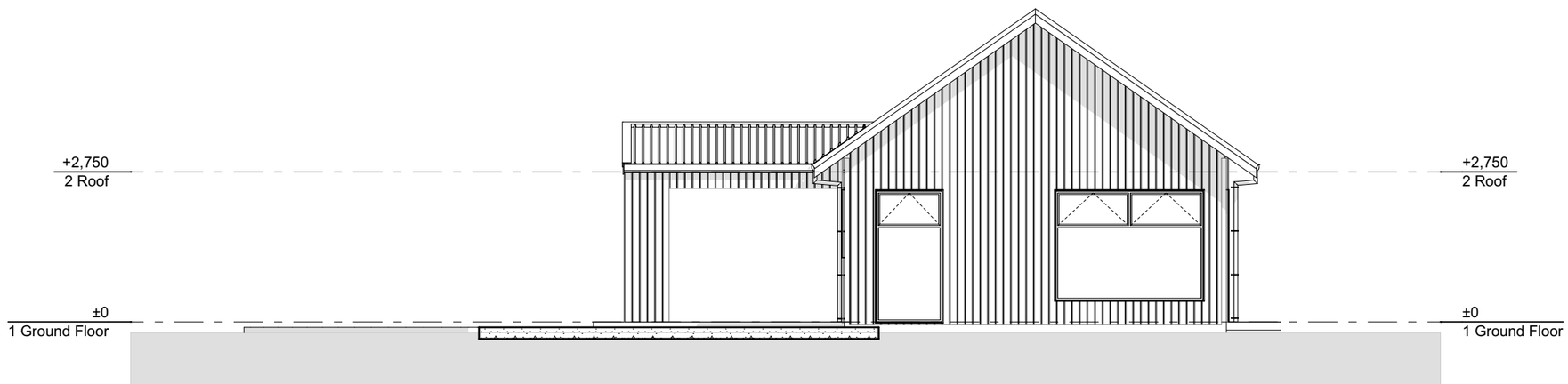
Corrosion Zone 1,2,3,4:
Durability of fixings to comply with NZS 3604:2011 Section 4 and NZBC B2/AS1

ALL FIXINGS SUBJECT TO WEATHERING TO BE STAINLESS STEEL.
ALL FIXINGS WITHIN 600mm OF THE GROUND TO BE STAINLESS STEEL.

Finished Floor to Ground levels:

To unprotected ground 225mm min.
To Permanent paving 150mm min.

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	Low	0
Eaves width	High risk	2
Envelope complexity	Low risk	0
Deck design	Low	0
Total Risk Score:		**3**



1 East Elevation
Scale 1:100

2 North Elevation
Scale 1:100

MASON STREET
architectural drafting

Kyle Kake
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Job Title
Proposed Home - Jake Currin & Ella Harris

Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

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Drawn	KK
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Print Date	7/10/25
Scale @ A3	1:100

Sheet Title
Elevations

Sheet No.
201

General Notes

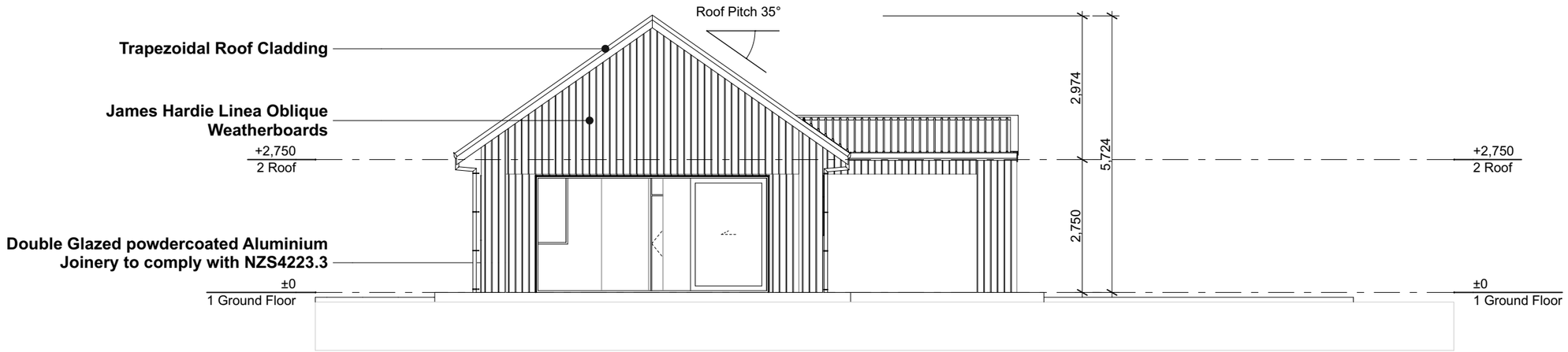
All construction shall be carried out in accordance with NZBC, and NZS 3604:2011 + Amendments. Aswell to comply with any local authority bylaws.

Corrosion Zone 1,2,3,4:
Durability of fixings to comply with NZS 3604:2011 Section 4 and NZBC B2/AS1

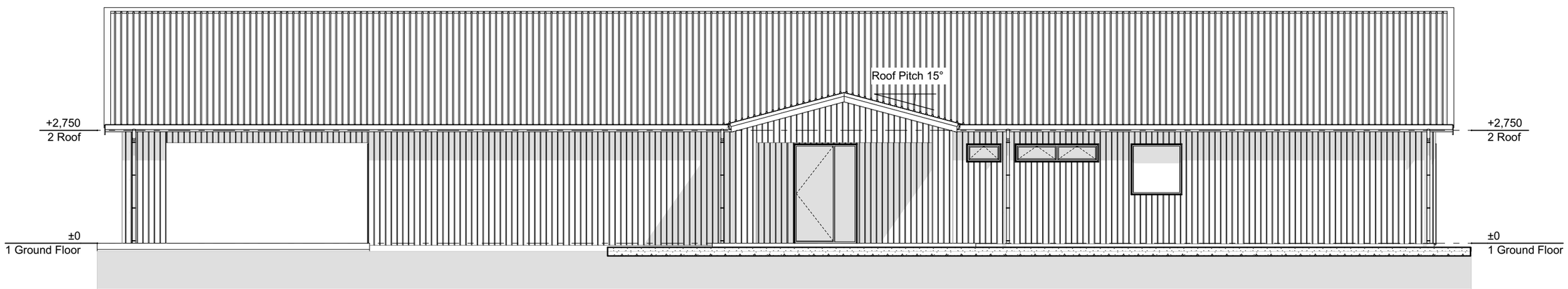
ALL FIXINGS SUBJECT TO WEATHERING TO BE STAINLESS STEEL.
ALL FIXINGS WITHIN 600mm OF THE GROUND TO BE STAINLESS STEEL.

Finished Floor to Ground levels:

To unprotected ground 225mm min.
To Permanent paving 150mm min.



1 West Elevation
Scale 1:100



2 South Elevation
Scale 1:100

MASON STREET
architectural drafting

Kyle Kake
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kyle@masonstreet.co.nz
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Job Title
Proposed Home - Jake Currin & Ella Harris

Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

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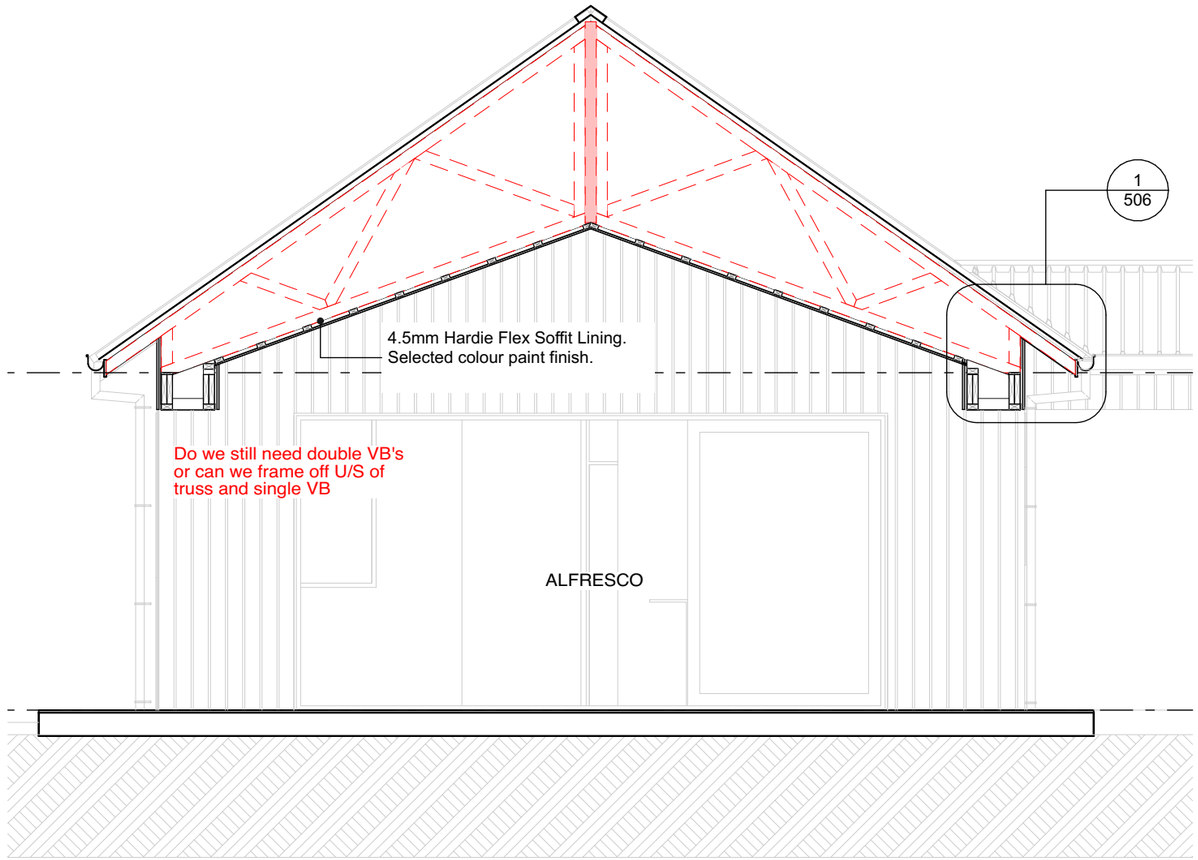
Checked	Kyle Kake_ BP130188
Print Date	7/10/25
Scale @ A3	1:100

Sheet Title
Elevations

Sheet No.
202



B
#LayID

Section

Scale 1:50

MASON STREET
architectural drafting

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kyle@masonstreet.co.nz
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Job Title
Proposed Home - Jake Currin & Ella Harris

Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

Drawn	KK
Checked	Kyle Kake_ BP130188
Print Date	7/10/25
Scale @ A3	1:50

Sheet Title
Sections A/B

Sheet No.
301

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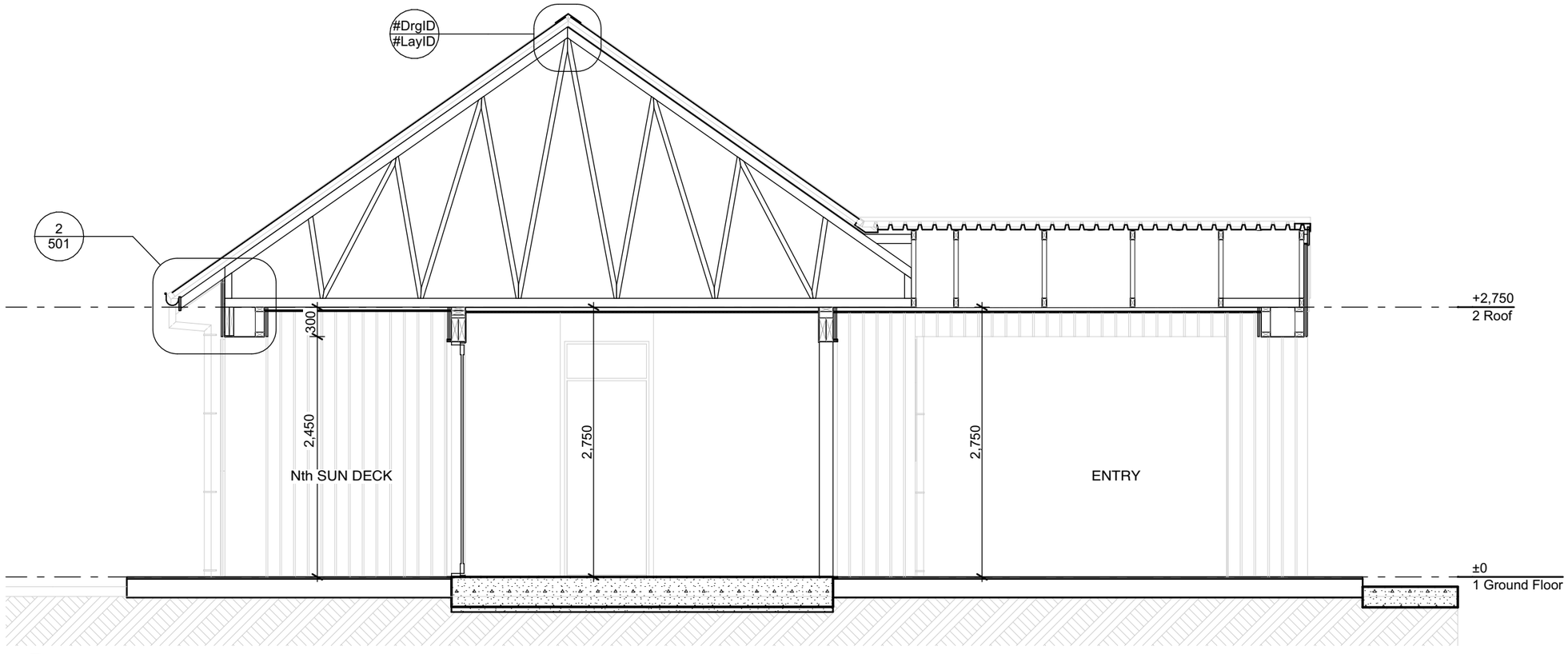
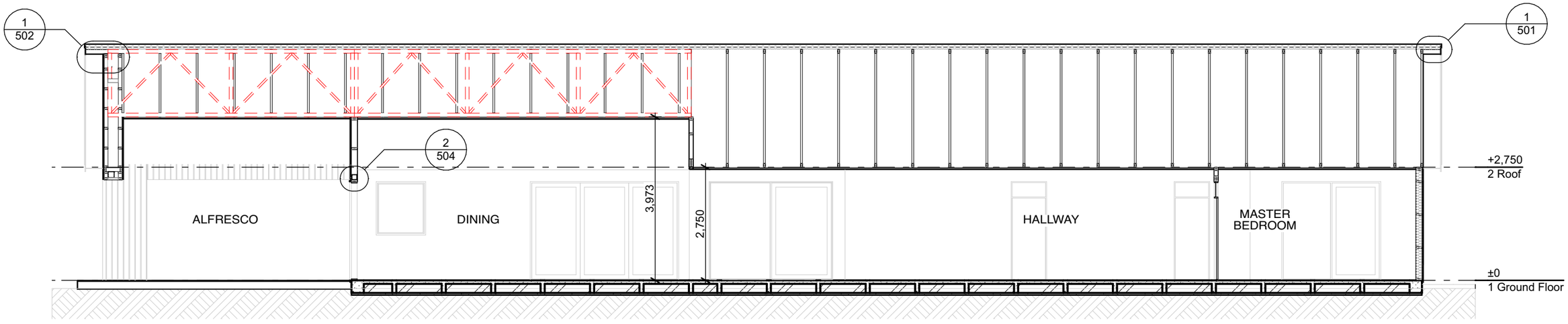


D Section
103 Scale 1:50



E Section
#LayID Scale 1:100

MASON STREET
architectural drafting

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kyle@masonstreet.co.nz
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Job Title
Proposed Home - Jake Currin & Ella Harris

Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

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Drawn	KK
Checked	Kyle Kake_ BP130188
Print Date	7/10/25
Scale @ A3	1:50, 1:100

Sheet Title
Sections D/E

Sheet No.
303

FAR NORTH DISTRICT COUNCIL

THE RESOURCE MANAGEMENT ACT 1991

CONO 6290071.3 Consen
Cpy - 01/01, Pgs - 002, 26/01/05, 11:03
DocID: 311775767

SECTION 221 : CONSENT NOTICE

REGARDING RC 2010082
The subdivision of Pt Sec 9, Blk XI Houhora East SD
North Auckland Registry.

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

SCHEDULE

I. Maintain the trees and/or shrubs comprising the approved landscaping, including the replacement of any dead and/ot diseased plants and a share of any privateway landscaping, as may be required.

II. Comply on an on-going basis with the duties and obligations imposed by way of the provisions of the document prepared in compliance with Condition (3) (j). of RC 2010082 dated 9 July 2001.

III. Lots 1 and 11 are to form their site access only off the Lot 13 privateway and at a point no closer than 30 metres from its intersection with State Highway No 1F, unless specific written approval is obtained from Transit New Zealand.

IV. Undertake any maintenance, as and how required, by the stormwater management plan as prepared and implemented under Condition (3) (b) of RC 2010082 dated 9 July 2001.

V. In any subsequent re-subdivision of the allotments within this development, the new proposal will be assessed (either in money, works or a combined thereof, as is appropriate) for its contribution toward providing an urban solution to the stormwater control within the area of the original subdivision.

SIGNED: _____

by the FAR NORTH DISTRICT COUNCIL
under delegated authority:
RESOURCE CONSENTS MANAGER

DATED at **KAIKOHE** this 10th day of December 2004

RC2010082
SRM\CERT\3221
4wagener221

Far North District Council

Appendix E

TP58 & TP10

Jake Currin & Ella Harris

Lot 10 Wagener Grove

Pukenui

E.J.Wagener Certifying Registered Drainlayer

Robert Wagener Associate Engineer

MASON STREET
architectural drafting

Kyle Kake
027 567 8808
kyle@masonstreet.co.nz
www.masonstreet.co.nz

Job Title
Proposed Home - Currin

Project Location
Lot 10 Wagener Grove,
Pukenui,
Whangarei

Drawn	KK
Checked	Kyle Kake_ BP130188
Print Date	15/11/2024
Scale @ A3	1:500

Sheet Title
Site Plan

Sheet No.
101

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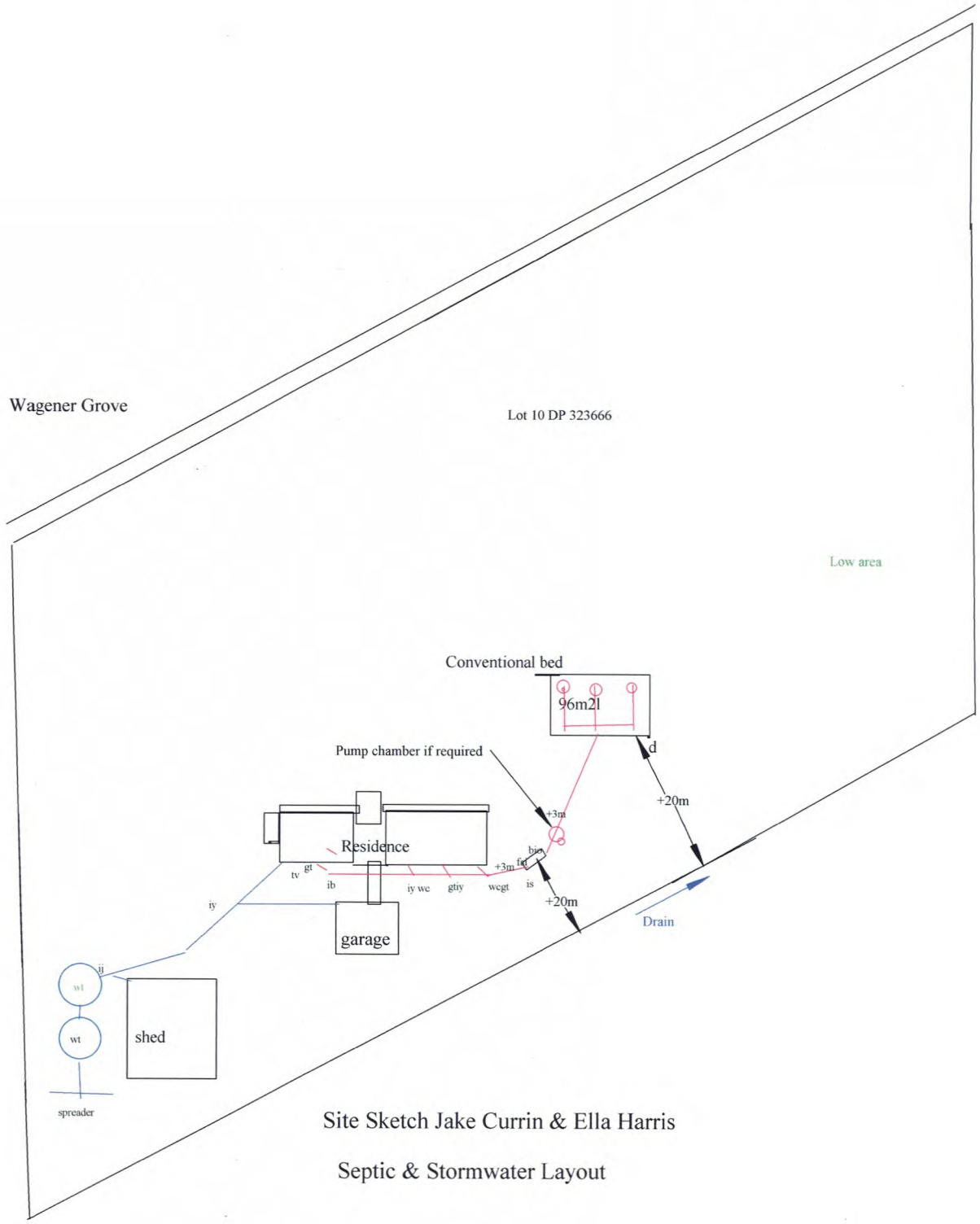
Notes
All works to comply with ASNZS 3500
All materials to comply with ASNZS 12
Septic tank is 4500L fitted with Fai &Bi
Fall in septic main to be no less than 1:6
Bed to be laid level
All septic works to be at least 3m off bu
Bed to be a minimum of 3m off septic ta
All septic works to be a minimum of 1.5

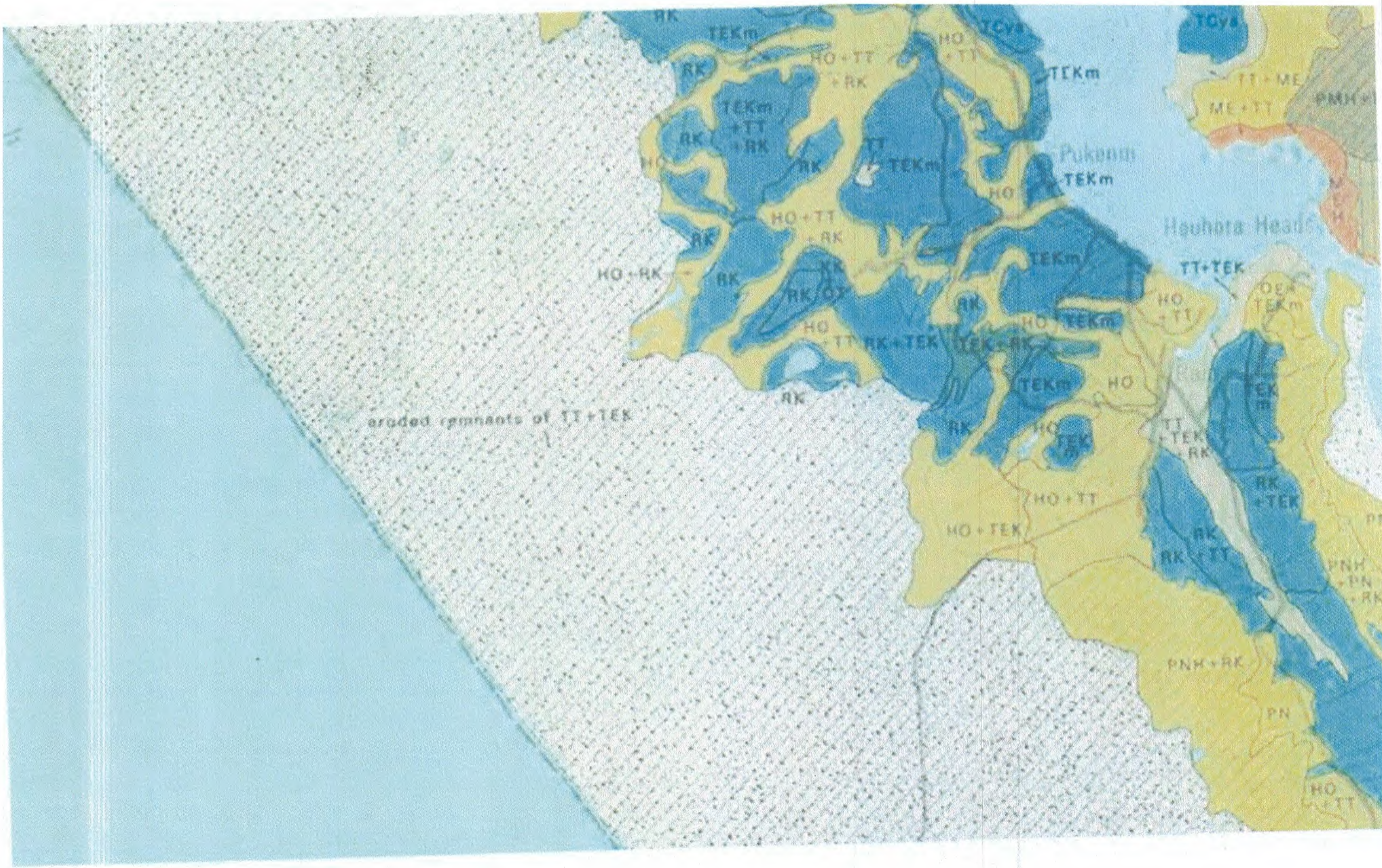


Site Sketch Jake Currin & Ella Harris

Septic & Stormwater Layout

Managing Northland Soils factsheet viewer

60m



Pukenui
Houhora Heads
eroded remnants of TT+TEK
TEKm
TCys
HO+TT
HO+RK
RK
TT+TEK
HO+TEK
PNH+RK
PN

PRODUCER STATEMENT

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

ISSUED BY:..... *Eric Wagener*.....(approved qualified design professional)

TO:..... *Jake Currin & Ella Harris*.....(owner)

TO BE SUPPLIED TO: ..... *Far North District Council*.....

PROPERTY LOCATION:... Lot 10 Wagener Grove Pukenui.....
.....
LEGAL DESCRIPTION .....*Lot 10 DP 323666* .....

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

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

As an independent approved design professional covered by a current policy of Professional Indemnity
Insurance (Design) to a minimum value of $200,000.00, I BELIEVE ON REASONABLE GROUNDS that subject to:
(1) The site verification of the soil types.
(2) All proprietary products met the performance requirements.
The proposed design will met the relevant provisions of the Building Code and 5.3.11 of The Far North District Council Engineering Standards.

.....(Signature of approved design professional)

..... *Certifying Registered Drainlayer*.....(Professional qualifications)

..... *05877*.....(Licence Number or professional Registration number)

Address ..... *3778 Far North Rd, RD4 Kaitaia*.....

Phone Number..... *09 4098 854*.....

Fax Number .....

Cell Phone ..... *0274 885 584*.....

Date .....*2/03/2025*.....

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.

On-site Wastewater Disposal Site Evaluation Investigation Checklist

FAR NORTH DISTRICT COUNCIL

Appendix E

TP58

On-site Wastewater Disposal Site Evaluation Investigation Checklist

Part A –Owners Details

1. Applicant Details:

Applicant Name	*Jake Currin*	
Company Name		
	First Name(s)	Surname
Property Owner Name(s)	*Jake Andrew* *Ella Kathryn*	*Currin* *Harris*
Nature of Applicant*	*Owner*	

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

2. Consultant / Site Evaluator Details:

Consultant/Agent Name	*Eric Wagener & Robert Wagener*			
Site Evaluator Name				
Postal Address	*3778 Far North Rd*			
	RD4			
	Kaitaia			
Phone Number	Business	*094098854*	Private	
	Mobile	*0274885584*	Fax	
Name of Contact Person	*Eric Wagener*			
E-mail Address	*ewagener@xtra.co.nz*			

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

Yes		No	√	(Please tick)

If yes give Reference Numbers and Description	

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

If so, specify Application Details and Consent No.

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

See CT

Part B- Property Details

1. Property for which this application relates:

Physical Address of Property	*Lot 10 Wagener Grove Pukenui*
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)	*10151m2*
Map Grid Reference of Property If Known	

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

Lot No.		DP No.		CT No.	
10		*323666*		*95372*	
Other (specify)					

Please ensure copy of Certificate of Title is attached

PART C: Site Assessment - Surface Evaluation

(Refer TP58 - Sn 5.1 General Purpose of Site Evaluation and Sn 5.2.2(a) Site Surface Evaluation)
Note: Underlined terms defined in Table 1, attached

Has a relevant property history study been conducted?

Yes		No	√	(Please tick one)

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

There are no HAIL issues as it is remote from hazardous activity. The property has been urban lifestyle for many years. There are no known recorded hazards

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

Yes		No	√	Please tick

If No, why not?

There are no signs of stability problems. Confirmed by Geotec report

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

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

2. Site Characteristics (See Table 1 attached):

Provide descriptive details below:
Performance of Adjacent Systems:
Systems are working well
Estimated Rainfall and Seasonal Variation:
Information available from **N.I.W.A MET RESEARCH**
1100-1300mm/yr
Vegetation / Tree Cover:
Grass palms, and some garden
Slope Shape: (Please provide diagrams)
Basically flat.
Slope Angle:
Minor parabolic dune structure It will not create any difficulties for installation of disposal system. Slope 1>2 degrees
Surface Water Drainage Characteristics:
Surface water will be alleviated by the natural contour of the land.
Flooding Potential: YES/NO
Unlikely to flood at proposed building, or disposal field location.
If yes, specify relevant flood levels on appended site plan, I.e. one in 5 years and/or 20 year and/or 100 year return period flood level, relative to disposal area.
Surface Water Separation:
+20m
Site Characteristics: or any other limitation influencing factors

3. Site Geology Check Rock Maps

Te Koupuru sand over sandstone, followed by silica sands is listed in the soil maps. This was confirmed by onsite test

Geological Map Reference Number	*NZMS 290*

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

North	X	**West**	
North-West		**South-West**	
North-East		**South-East**	
East		**South**	

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

Separation Distance from	Treatment Separation Distance (m)	Disposal Field Separation Distance (m)
Boundaries	*+20m*	Check Council requirements *+1.5m*
Surface water, rivers creeks, drains etc	*+20m*	*+20m*
Groundwater	*+ 1.8m*	*+.800m*
Stands of Trees/Shrubs	*+5m*	*+5m*
Wells, water bores	*N/A*	*N/A*
Embankments/retaining walls	*N/A*	*N/A*
Buildings	*+3m*	*+3m*
Other (specify):	*N/A*	*N/A*

PART D: Site Assessment - Subsoil Investigation

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

1. Please identify the soil profile determination method:

Test Pit		Depth_____m	No of Test Pits	
Bore Hole		Depth___*0.75*_____m	No of Bore Holes	*2*
Other (specify):				

Soil Report attached?

Yes	√	No		Please tick

2. Was fill material intercepted during the subsoil investigation?

Yes		No	√	Please tick

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

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

Please specify the method
Constant Head ksat

Test Report Attached?	Yes	√	No		Please tick

4. Are surface water interception/diversion drains required?

Yes		No	√	Please tick

If yes, please show on site plan

4a Are subsurface drains required

Yes		No	√

If yes enter details

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

Winter	*Not found*
Summer	*Not found*

Measured		Estimated	√
Measured		Estimated	√

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

Yes		No	√	Please tick

If the answer is yes, please explain how these have been addressed

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

Is Topsoil Present?	*Yes*	If so, Topsoil Depth? (m)	*70> 750mm*

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	X
7	Swelling clay, grey clay, hardpan	Poorly or non-draining	

Reasons for placing in stated category

Onsite soil tests put this soil into category 6.
.
Category was corroborated by soil maps.

PART E: Discharge Details

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

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	*3+office =4*	
Design Occupancy	*6*	(Number of People)
Per capita Wastewater Production	*160*	(Litres per person per day)
Other – specify		
Total Daily Wastewater Production	*960*	(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 %?	%				(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:

Yes		(Please tick)
No	√	(Please tick)

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

5. Gross Lot Area to Discharge Ratio:

Gross Lot Area	*10151*	m^2
Total Daily Wastewater Production	*960*	(Litres per day)(from above)
Lot Area to Discharge Ratio	*10.57*	

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

Yes	√	No		(Please tick)

8. Is a Northland Regional Council Discharge Consent Required?

Yes		No	√	(Please tick)

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

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

Number of Tanks	Type of Tank	Capacity of Tank (Litres)
1	*Standard concrete septic*	*4500L*
	Total Capacity	*4500L*

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

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

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

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

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

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

Gravity	√
Dosing Siphon	
Pump	

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

Yes		No	X

If not to be installed, explain why

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

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

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

Surface Dripper Irrigation			
Sub-surface Dripper irrigation			
Standard Trench			
Deep Trench			
Mound			
Conventional bed	X		
Other		Specify	

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

Loading Rate	*10*		(Litres/m^2/day)
Disposal Area	Design	*96*	(m^2)
	Reserve	*96*	(m^2)

Explanation *(Refer TP58 Sections 9 and 10)*

This is in line with TP58 for cat 6 soils.

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

Reserve Disposal Area (m^2)	*96*
Percentage of Primary 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:

See Design Site Plan				
Total basal area required is 96m^2				
Plan Attached?	Yes	√	No	

If not, explain why not

PART I: Maintenance & Management

(Refer TP58 Section 12.2)

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

Yes		No	√

(Please tick)

Name of Suppliers

PART J: Assessment of Environmental Effects

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

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

Yes	√	No	

(Please tick)

If Yes, list and explain possible effects

Nil

PART K: Is Your Application Complete?

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

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

1. Declaration

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

Name	Eric Wagener	Signature	
Position	Certifying Reg Drainlayer	Date	7/03/2025

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

APPENDIX – A

ASSESMENT OF ENVIRONMENTAL EFFECTS
Summary:
Jake Currin
Lot 10
Wagener Grove

In Preparing this design and recommendations the writer has taken into account:

- Subsoil structure, surface structure and the ability to contain effluent on the existing residential site.
- Ground water separation and potential for contamination.
- Evaluated the potential for effluent disposal and assessed the absorption field ability to cope with the design load.
- Adopted and evaluated design criteria as they apply to standard septic tank systems.
- Selected a simple solution and design recommendation for any additions to effluent disposal.
- Calculated the daily water use and combined that into the calculations for effluent disposal in m2 requirements plus 100% reserve.
- Evaluated visually the potential for surface water contamination and potential for system short circuit.
- Identified that there is enough area within the proposed site constraints to allow for any designed load, and the designed effluent disposal.
- Identified that there is capacity for reserve if the reserve is required
- Identified and recorded the site aspect, and location
- Included site drainage location
- Stipulated design criteria
- Referred to the design criteria in T.P.58 Manual for On Site Disposal with particular reference to soil categories "Appendix D"
- Taken note of the special clauses of the consent notices, and evaluated the impact that this proposal may have.
- Used for assessment purposes calculations based on site land bore investigation, and percolation tests, balancing that against seasonal absorption variations.
- Taken note of overland surface water drainage patterns
- Concluded from careful evaluation that there will be no environmental effects which cannot be easily mitigated.

Background to the summary for the Assessment of Environmental Effects and Mitigation Measures Appendix A-

Owner:
Jake Currin & Ella Harris
Lot 10 Wagener Grove
Pukenui R.D.4 Kaitaia

The property is located of Far North Road via a private road Wagener Grove. The site is part of a consolidated parabolic due structure, consisting in the main of Te Koupuru sands, followed by sandstone and then silica sand.

The property is flat to mildly undulating with minor falls. The building site, is shown on the site map. Site measurements are as per architectural drawings.

Natural surface water will be directed away from a new building via the natural contours of the land.

Risk Assessment:
The section is adjacent to other developments. Due to the topography of the site there is little chance of runoff from the building site effecting other properties. The sand type is highly absorbent in the summer and poor in winter. The natural fall is towards the main drain on the southern boundary, therefore runoff effect on other infrastructure is likely to have minimal effect.

The land mass is above any local recognised flood level. There are no ecological risks. No Hail issues have been identified with this area. The effluent system has been placed so that maximum separation possible is achieved from any assessed risk area. The wastewater and septic system have been designed using rates and design calculations from the ARC TP58 Design Manual approved by the FNDC.
The soakage is poor in winter. Groundwater in winter at the effluent site is at a depth greater than 0.8m. This is significantly deeper than the designed effluent disposal system, which in turn is elevated above the surrounding land mass.

Impact on surface water:
Visual evaluation of the site showed that adequate fall can be generated at the current proposed effluent site. This disposal area will not be affected by surface water. The primary treated effluent has been designed to be disposed of into the soil by conventional bed. There is sufficient slope on the section to ensure that there will be no surface water retention for any length of time which could affect or compromise the effluent disposal system chosen.

The designed effluent system is not seen to pose any threat to surface water for the above risk matrix reasons or pose a threat to others in the near vicinity.

Impact on groundwater:
On site exploration and extensive testing has shown:

- Tests carried out on the site indicate that the soil falls into a category 6. There will be adequate area for reserve areas. The proposed lot in general at over 10151m2 has acceptable buffer areas.
- The decision tree process upon which the design was evaluated involved the careful analysis of soil structure, consideration of the areas available, the depth of soil available and the ability of the site to safely contain effluent discharge. The soil loading rates used were as a result of Ksat tests, those recommended in T.P58, and ASNZS standards.

Having taken all the above factors into consideration it is believed that there will be little possibility of any effect on groundwater. There is a buffer between the effluent site and any risk area. The location of the effluent disposal systems has been placed so that the horizontal movement of any contaminants would not cause a hazard or have any effect on the immediate environment.
Soil testing was completed in a period of very wet weather (June 2024)

Impact on the soil:
It is generally accepted that the degree of nitrogen leaching increases with higher soil carriage water (rain fall and effluent loading rate). Therefore, low effluent loading rates can assist in the mitigation of nitrogen leaching.
The primary mechanism for reducing nitrogen discharges into the receiving environment is the reduction of the organic load. In this case the opportunity for intensive organic load is not considered a major factor due to the low occupancy and the reliance on rainwater.

The soil type is listed as Te Koupuru sand. This is classed as being poorly drained. Onsite testing suggests drainage at this site is better than listed, the night before testing recording some 80mm of rain. Category 6 has been used for calculations.

Design mitigation measures:
The system installed for effluent disposal (appendix C) has been designed to maximise the potential for basal ground area, wall and transpiration disposal.
The separation distance of wastewater distribution from potential groundwater aquifers, which were not found, minimises the opportunity for any aquifer contamination. Storm water and storm water treatment is managed so that there will be no impact on effluent disposal.

Amenity Values:
An in-depth study of the immediate areas of impact indicates that this proposal will have no more impact on the surrounding land users or occupiers than that currently existing. The current systems for the neighbouring dwellings into similar structures show no sign of septic stress.

Conclusion:
The summary of factors taken into consideration "Appendix A" leads to the conclusion that there are no environmental effects which are not mitigated by adequate design.

It is our assessment that there are no environmental effects that would give reasons why this change in use should not go ahead.

E.J.Wagener Certifying Registered Drainlayer 05877

Robert Wagener Associate Engineer

Effluential DrainLayers Ltd
3778 Main North Road
R.D.4
Kaitaia 0484

Phone 09 409 8854 Fax 09 409 7720 Mobile 0274 8855 84

20//03/2025
Jake Currin & Ella Harris
Lot 10 Wagener Grove
Pukenui

Report on Storm Water Attenuation

Purpose
To control/assist the management of the effects of stormwater runoff from building developments and mitigate the impact this has on infrastructural assets.

Considerations
It needs to be accepted that the impact is greater in densely populated areas and less in urban/rural.
The definition of soakage is the process where a permeable substance receives a liquid, in this case where storm water is disposed of into ground, or effective runoff slowed so as to minimize effects on the environment or infrastructure.
The infiltration factor ksat assessment, assists in mitigating runoff impact.
Characteristics that determine permeability are soil structure, soil particle size, and geomorphology.
The flow rate of the soakage discharge is also dependent upon the soakage area and the hydraulic pressure forcing water into the absorbent media.

Site Description
The property is located off Wagener Grove. Pukenui Area being 10151m2

This is a large section predominantly covered in grass with a few trees. The property is relatively flat, having an elevated part to the west and gently slopes to the southeast. There is an open drain along the entire length of the south-eastern boundary line. This drain ultimately reaches the Raio Creek.

Natural surface water would be directed away from a new building via the contours of the land.

The soil type is listed as Te Kopuru sand over sand stone. Soil maps class this as poorly drained.

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Design Criteria
Soakage devices must be 3m from dwellings.

The Far North District Council aligns storm water attenuation requirements with other authorities.
The Whangarei District Council requires site attenuation when the percentage of impermeable surfaces exceeds 2%.
The Auckland Regional Council prepared TP10 as a reference on a similar basis and ASNZS 1547 is also structured in the same manner.
The spread sheet used in calculating Attenuation requirements has been developed in conjunction with the FNDC stormwater Engineer.

The Far North District Council information was designed specifically to enable storm water design to be expedited quickly. The ARC prepared TP10 on the same basis. ASNZS1547 is also structured in the same manner.

Therefore, attenuation is only required when the ratio of impermeable surfaces to total property area exceeds 2%. However other factors can influence the requirement to attenuate.

Design Calculations
All calculations submitted are via Stormwater calculation spread sheet. It is a given that new calculations may be required should future development take place.

Run off from impervious surfaces on a total land area of 101510m^2 is of marginal concern. The estimated additional impermeable surfaces have been calculated as: residential 208.42m^2, driveway 252m^2. This is a combined total of 496.42m^2 out of an overall 10151m^2.

The ratio of impermeable surfaces to overall area is 4.8%.

In line with the design criteria above, the property, with a ratio of 4.8%, should require attenuation. However, given that there is a large open drain along the south-eastern boundary that within 400m drains to the Raio Creek it is unlikely that the proposed development will have a negative effect on council infrastructure.

Design Proposal
Any development has some adverse effects however in relation to the major area the effects are small, with stormwater having no immediate effect on any regional infrastructure.

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The principle being used in this case is that stormwater generated by the building roof area is discharged via 100mm uPVC stormwater pipe and spreader to the surrounding environment. The cumulative effects from this sized development will be minor, in relation to the whole.

Devices which discharge water via infiltration through soil provide a storm water quality benefit to the receiving environment and the in-situ soil acts as a filter media for removing contaminants. This is a known beneficial factor and provides for infiltration devices to be used as storm water quality treatment.

On site observation indicates that there is not, and is unlikely to be, any erosion from this source.

It is most unlikely given the percentage of impervious surfaces that there will be any environmental effect which cannot be contained within the boundaries with this proposed development.

This combination of circumstance lessens the impact on the downstream environment while providing for the maximum soil absorption as proposed by TP10, again lessening the potential impact on infrastructure.

Regional Plan:
The Northland Regional Council proposed rule C6.4.2 provides for the diversion and discharge of stormwater from outside a public stormwater network, provided that (amongst other conditions) the discharge or diversion does not cause or increase nuisance or damage to other property. In this case there will be no affected neighbouring properties.

Therefore, this proposal is in accordance with NRC Rule C6.4.2.

Conclusion:
Any stormwater overflow from this proposed building will be discharged via a spreader bar to the surrounding environment at the south-east of the building site. There will be no cumulative effect on FNDC infrastructure.

Eric Wagener Certifying Registered Drainlayer 05877
Robert Wagener (Engineer) Effluential Drainlayers Associate

1 Jake Currin 25 — **Rational method** — **48hr**

Pre-development Slope %	Ci correcdtion
10	0.00

Post-development Slope %	Ci correcdtion
10	0.00

Pre – Development water flow

(Original water flow)

Total area. Area (m^2)	Roof & decks 1 (m^2)	Concrete & smooth seal 2 (m^2)	Metaled area Or rough seal 3 (m^2)	Other Impervious 4 (m^2)	Vegetation 5 (m^2)	Bush 6 (m^2)
496.42	0	0	0	0	496.42	0
Runoff coefficent	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)
Use "C" values from FNDC TR55 chart	FALSE	FALSE	FALSE	FALSE	0.59	FALSE
Generally do not use slope adjustment Ci factor if using TR55	0.96	0.96	0.3	0.65	0.59	0.59
Rainfall intensity	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)
Rainfall Data from NIWA. Hirds 4, RCP6, 2081-2100	1.58	2.99	2.99	2.99	2.99	2.99
Use an appropiate event for the situation						
Flow rate of surface water	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)
	0.000	0.000	0.000	0.000	0.000	0.000

Pre – development flow of developed area	Qp (m^3/sec)	Qp (L/sec)
	0.0002	0.24

Post – Development water flow

Any area where there is a change in the impermiablity values

Total area. Area (m^2)	Roof & decks 1 (m^2)	Concrete & smooth seal 2 (m^2)	Metaled area Or rough seal 3 (m^2)	Vegetation 4 (m^2)
496.42	244.42	0	252	0
OK				
	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)
Use "C" values from FNDC TR55 chart	0.96	FALSE	0.90	FALSE
Generally do not use slope adjustment Ci factor if using TR55	0.96	0.96	0.9	0.59
Rainfall intensity rate	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)
Rainfall Data from NIWA. Hirds 4, RCP6, 2081-2100	3.33	3.33	3.33	3.33
Use an appropiate event for the situation				
Flow rate of surface water	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)
	0.000	0.000	0.000	0.000
	Qc (L/sec)	Qc (L/sec)	Qc (L/sec)	Qc (L/sec)
	0.22	0.00	0.21	0.00

Pre-development area where there is a change in impermeable surfaces but not collected in atenuation system

Concrete & smooth seal 5 (m^2)	Metaled area or vegetation 6 (m^2)
0	0
Ci (coefficient)	Ci (coefficient)
0.2	0.3
"C" value difference between Pre & Post	
Maximum value 0.2 (at the moment)	
I (mm/hr)	I (mm/hr)
2.99	2.99
Qc (m^3/sec)	Qc (m^3/sec)
0.000	0.000
Qc (L/sec)	Qc (L/sec)
0.00	0.00

Any area where there is no change to the impermiablity values

Metaled area or seal 7 (m^2)	Vegetation 8 (m^2)
0	0
Ci (coefficient)	Ci (coefficient)
FALSE	FALSE
0.59	0.59
I (mm/hr)	I (mm/hr)
2.99	2.99
Qc (m^3/sec)	Qc (m^3/sec)
0.000	0.000
Qc (L/sec)	Qc (L/sec)
0.00	0.00

Total included in attenuation system calc's post – development flow	Qa (m^3/sec)	Qa (L/sec)
	0.000	0.18

Post – Pre development flow	Qtpp (m^3/sec)	Qtpp (L/sec)
	0.0002	0.18

Total post development flow Developed flow + undeveloped flow	Qatt (m^3/sec)	Qatt (L/sec)

Total impermeable excluded from attenuation system collection	Qby (m^3/sec)	Qby (L/sec)
	0.000	0.00

Total no change, excluded from attenuation system calc's	Qby (m^3/sec)	Qby (L/sec)
	0.000	0.00

2

						Calculation (initial)	Calculation (final)	Num. Of tanks	**Slope out control (volume)**			
					Calculation (initial)	Calculation (initial)	usable height	Additional area	1	1930min (row4235)	2130min (row4435)	2160min (line4465)
	Round	Square			Total tank area	Total tank volume	hmax (m)	m^2	r (m)	0.00907	0.00814	0.0080048
Select 1 for type of tank/area, 0 for other	0	1			m^2	m^3	1.6	Nil	1.9	0.00938	0.00841	0.0082665
Estimate storage volume			Tank radius		6.00	9.60	Raise	Total area	m^2 for fixed H68 height	0.03144	0.02665	0.026173
Adjust to match max Vstored	Num. Of tanks		r (m)			Initial calculation	OK	Same as initial	11.34		If using slope control	0.000481
Round area	0		1.8		0.00	hstor max.	2.211	Final volume	Not used			Diff. = 0.0015+-0.0005
	Num. Of tanks	Width	Length		m^2	Vstored max.	13.27	Same as initial	Trench width	**80 minute crossover**		minute steps
Square/rectangular area	1	2	3		6.00	Vstored min.	0.042		4	1500	1520	1620
						0.05 to3.5% left @ 48hr	0.32		Trench length	0.00216	0.00190	0.00108
Short tube, 0.76	Orifice type "u"	g					OK	Same as initial	6.1	0.00208	0.00198	0.00149
Thin sharp, 0.62	0.76	9.8067				Graph, 24hr Vstored 2520m	0.104	Not used	m^2 for fixed H68 height	-0.00008	0.00008	0.00041
						Max.10% left @ 24hr from initial calc.	0.79	0.79	24.40		**Minimise L76**	
						or add extra volume			Not used		Line to compare pre-develpoment original	
	48hr	24hr	12hr	6hr	2hr	60	30	20	10		line with crossover line changes at point	
Pre – development flow	C20	L20	U20	AD20	AM20	AV20	BE20	BN20	BW20		minute steps	Qpre (L/sec)
3 of developed area	0.00024	0.00041	0.00068	0.00108	0.00216	0.00321	0.00465	0.00570	0.00789		1445	7.9
											1450	5.7
Pre–development flow matches 2hr 40min. Intensity	Qp (m^3/sec)	Qp (L/sec)		Qin max.			Slope factor adjustment at				1455	4.6
Uses (80min.crossover O126) as a source value	0.0018	1.7952		0.00723		48hr program	Min.crossover				1470	3.2
Do not change	OK					Min.crossover	Chart point (min.)	1080min (K2305)	2520min (K5185)		1500	2.2
For calculation purposes this section changes	Dia check	Dia	Area	Qout 1520 (L/sec)	Qout (m^3/sec)	Chart point (min.)	0.91	Qod (L/sec)	Qod (L/sec)		1620	1.1
the dia only and thereby the area	0.0232	0.02317	0.0004	1.981	0.00198	1520	peak flow	0.41342	0.18691		1800	0.7
The information is not used for anything else		23.17		0		1520	Chart point (max.)	0.22651	Diff. >0 normally		2160	0.4
							0.15					

If additional storage is required use the original/inital orifice size and calc. height

4

Calculate maximum storage volume

For period 2081-2100

Chart intensity hr values steps used	Chart intensity accumulated minute steps	Storm duration-THR (hr)	Storm duration-Event data, TMINS mins	Attenuation calc. tota Direct to Atten. Qa (L/sec)	Catchment pre-devel. plus orifice flow out Qtin (L/sec)	Houhora CC Post-dev RCP6 10 yr	Houhora Pre-dev (0 deg) 10 yr	Chart step factor	Check Adjust step factor if required	Catchment pre-devel. Chart step factor	Catchment pre-devel. Adjust step factor if required
48	720	12.00	720	0.18	0.36	3.33	2.99	1.4	-	1.4	
24	1080	6.00	360	0.3	0.7	5.72	5.05	1	OK	1	OK
12	1260	3.00	180	0.6	1.1	9.6	8.31	0.55	Lower Factor	0.55	Lower Factor
6	1380	2.00	120	0.9	1.7	15.6	13.3	0.55	OK	0.56	OK
2	1410	0.50	30	1.9	3.1	31.9	26.5	0.9	OK	0.9	OK
1	1425	0.25	15	2.9	4.4	47.8	39.4	0.8	OK	0.8	OK
30	1430	0.08	5	4.2	6.0	69.3	57.1	0.04	OK	0.04	OK
20	1435	0.08	5	5.2	7.2	84.9	70	1.0	OK	1.0	OK
10	1440	0.08	5	7.2	9.5	118	97	1.0	OK	1.0	OK
10	1445	0.08	5	7.2	9.5	118	97	1.5	OK	1.5	OK
20	1450	0.08	5	5.2	7.7	84.9	70	1.0	OK	1.0	OK
30	1455	0.08	5	4.2	6.7	69.3	57.1	0.9	OK	0.9	OK
	1470	0.25	15	2.9	5.3	47.8	39.4	0.8	OK	0.8	OK
2	1500	0.50	30	1.9	4.2	31.9	26.5	1.1	OK	1.1	OK
6	1620	2.00	120	0.9	2.6	15.6	13.3	1	OK	1	OK
12	1800	3.00	180	0.6	1.3	9.6	8.31	1	OK	1	OK
24	2160	6.00	360	0.3	0.7	5.72	5.05	0.8	OK	0.8	OK
48	2880	12.00	720	0.2	0.4	3.33	2.99	0.73		0.8	

				Qout max.	Qout max.	Vstored max.
Catchment flow Qpat (cell MAX(P109:P130)	**Qcap max.**	Qp (m^3/sec)	Qp (L/sec)	(m^3/sec)	(L/sec)	Vol. stored, (m^3)
Catchment flow = orifice flow out + catchment pre-development flow	3.920	0.0039	3.9	0.00461	4.61	13.268
						OK
For calculation purposes this section changes	Dia check	Dia	Area			OK

OMAIKO SUITE Basement rock: greywacke, argillite and quart		
OV, OVH, OVp	Omaiko gravelly silt loam	3⇌2 OV Moderately to impe 1⇌0 OVH, OVp - Poorly to v
OMU SUITE Basement rock: mudstone, claystone, shale		
WK, WKH, WKp	Wharekohe silt loam	1⇌0 - Poorly to very poorly c
WKr	Wharekohe silt loam with brown subsoil	1⇌0 - Poorly to very poorly c
PINAKI SUITE Basement rock: sand and sand terraces		
OE	Ohia sand	5 - Very well drained
TX, TXp	Te Hapua fine sandy loam	2⇌1 TX Imperfectly to poorl 1⇌0 TXp Poorly to very poor
OEy	Ohia peaty sand	1⇌0 - Poorly to very poorly c
TEK	Te Kopuru sand	1⇌0 - Poorly to very poorly c
TEKm	Te Kopuru sand wet phase	1⇌0 - Poorly to very poorly c
TEKy	Te Kopuru peaty sand	1⇌0 - Poorly to very poorly c
PUHOI SUITE Basement rock: banded sandstone		
WKf, WKfp	Wharekohe fine sandy loam	1⇌0 - Poorly to very poorly c

Jake Currin & Ella Harris

Constant Head Ksat Test Results

	Depth of Hole	Height of Water in Hole	Drop in Tube	Volume drained from Tube	Time	Time decimal	mL per min
	mm	mm	mm	mL	mins:sec		
Hole 1	750	725	1150	479	31sec	0.6	821
Hole 2							
						Average	821

Ksat Calcs

Q	Rate of loss of water (cm3/min)	821	
H	Depth of water in test hole (cm)	725	
r	Radius of hole (cm)	9	
		0.027	m/d
		27	mm/d

Design Calculations

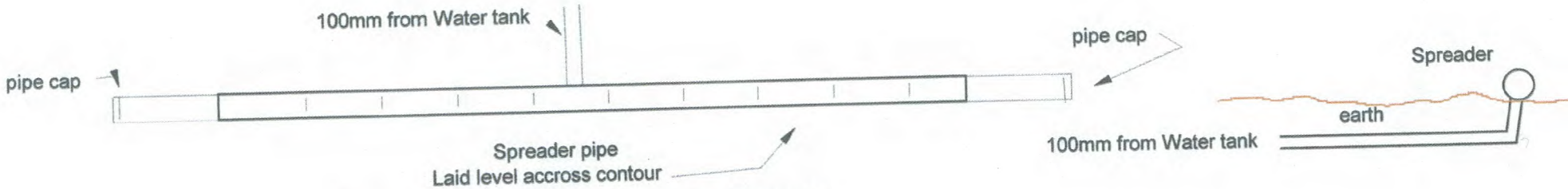
Bedrooms	4	
Design Occupancy	6	
Per capita wastewater production	160	L/d
Daily wastewater production	960	L/d
	0.96	m^3/d
DLR	10	mm/d
	0.01	m/d
Treatment Area Required	96.00	m^2

Borehole Profile

	Topsoil
750	Black Soil
300	Sand stone
Remainder	Yellow silica sand

Spreader Detail

Appendix D

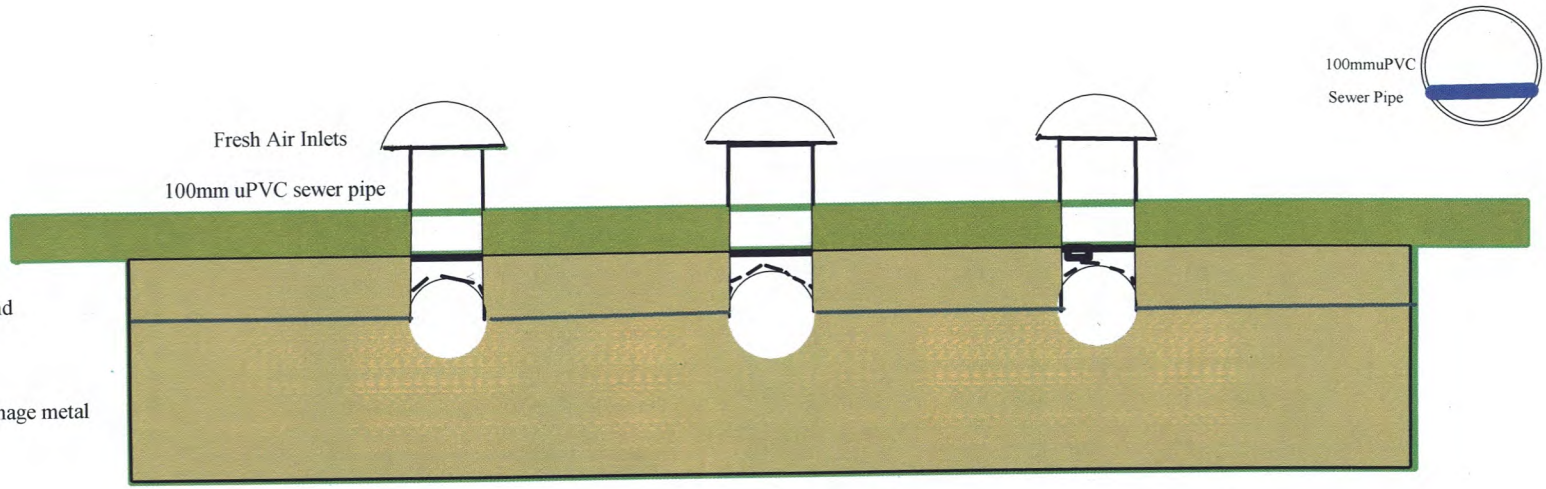


100mm uPVC sewer pipe saw cut at 500mm c/c

Jake Currin & Ella Harris

Wagener Grove Pukenui

E.J.Wagener Certifying Registered Drainlayer 05877



100mmuPVC
Sewer Pipe

20mm drilled holes or saw cut @ 600mmc/c so as to form a cup laid level so as to provide dose loading

Calculation: 4 x bed @ 160L = 960L

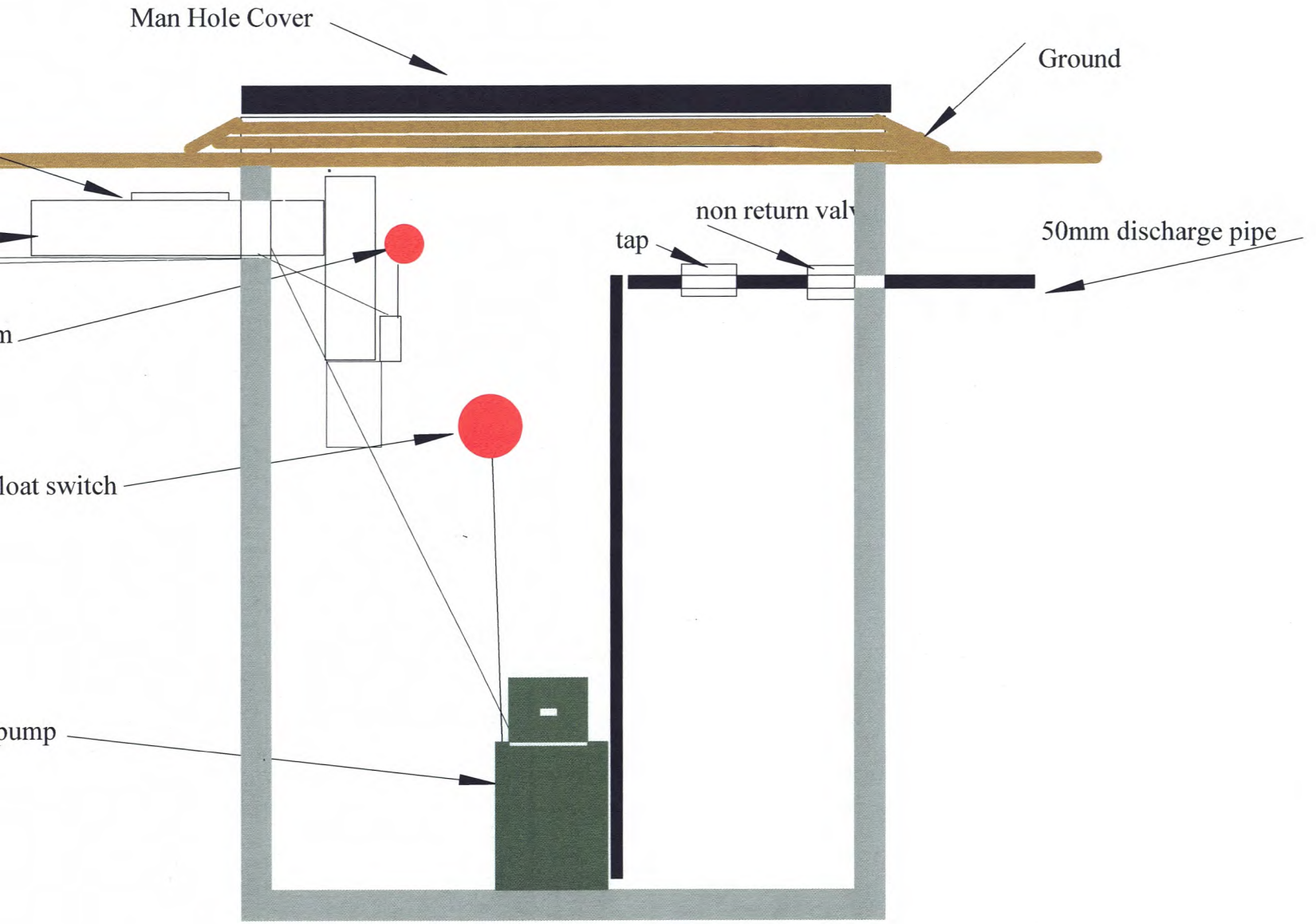
960L/ksat10 = 96m2
= Bed 9.6 wide x 10m Long

9.6m wide

Bed Not to Scale

Conventional Soakage Bed - Jake Currin & Ella Harris

E.J.Wagener Certifying Registered Drainlayer 05877



Pump Chamber Jake Currin Wagener Grove

E.J.Wagener Certifying Registered Drainlayer 05877

Wilton Joubert Limited
09 527 0196
185 Waipapa Road
Kerikeri 0295

SITE	**Wagener Grove, Pukenui**
LEGAL DESCRIPTION	**Lot 10 DP 323666**
PROJECT	**New Dwelling**
CLIENT	**Jake Currin**
REFERENCE NO.	**138302**
DOCUMENT	**Geotechnical Assessment Report**
STATUS/REVISION NO.	**FINAL – For Building Consent**
DATE OF ISSUE	**28 January 2025**

Report Prepared For	Email
Jake Currin	jake@currinbuilders.co.nz

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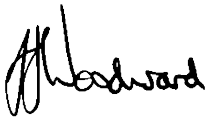
Approved by	**S.J. Woodward** *Meng, CPEng, CMEngNZ*	Principal Geotechnical Engineer	simonwoodward@wjl.co.nz	

1 EXECUTIVE SUMMARY

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

Development Type:	New dwelling (assumed NZS3604:2011 type loads).
Development Proposals Supplied:	Yes – Preliminary architectural drawings (7 sheets).
Geology Encountered:	Early Pleistocene Fixed Parabolic Dune Sands.
Loose Surficial Subsoils Encountered:	Unsuitable, loose surficial organic subsoils were encountered beneath the building site to depths of approximately 0.30m to 0.90m below existing ground level.
Overall Site Gradient in Proximity to Development:	Flat natured.
Natural Hazards:	Slope Stability: No perceived risk of global slope instability affecting the Building Platform, provided recommendations made in this report are followed. Liquefaction: Negligible risk of liquefaction susceptibility and liquefaction damage is therefore considered to be unlikely.
Suitable Foundation Type(s):	Reinforced, raft slab foundation system.
NZBC B1 Expansive Soil Classification:	Class A (non-expansive) soils.
Minimum Depth for Alfresco Roof Footings:	0.40m below finished ground levels and 0.40m into competent natural ground and/or engineered fill.
NZS1170.5:2004 Site Subsoil Classification:	Class C – Shallow Soil stratigraphy.
Earthworks:	Proposed Ground Improvement: Earthworks in forming the building platform will require an engineered earthworks operation, consisting of the removal of unsuitable, loose surficial organic subsoils and replacement with engineered fill. Imported clean hardfill is recommended as the least difficult material for filling purposes. Our Dynamic Cone – Scala Penetrometer Testing indicates that the loose, surficial layer is generally of 0.30m to 0.60m thickness however, may be up to approximately 0.90m across the eastern extents of the building site. Refer to section 9.3 for further guidance.
Further Geotechnical Review of Development Proposals Required:	Not anticipated unless development proposals are revised.

2 INTRODUCTION

2.1 SCOPE OF WORK

Wilton Joubert Limited (WJL) was engaged by Jake Currin (the client), to undertake a geotechnical assessment of ground conditions at the above site, where we understand, it is proposed to construct a new dwelling within the south-western quartile of the property.

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

2.2 SUPPLIED INFORMATION

At the time of preparing this report, the client has supplied a set of preliminary architectural drawings (7 sheets), titled; '*Proposed Home for Currin, Lot 10 Wagener Grove, Pukenui',* dated 26 November 2024, prepared by Mason Street Architectural Drafting. The drawing set includes Site, Floor, Elevation, and 3D plans.

Any revision of the above architectural drawings with Geotechnical implications should be referred to WJL for review.

Additionally, we have reviewed a Site-Specific Geotechnical Assessment Report (dated 10 April 2024, ref: 133207) our consultancy previously completed at the property for the client pertaining to the proposed construction of a new shed.

3 SITE DESCRIPTION

The subject 1.0151ha parallelogram shaped, Coastal Living Zoned property is positioned off the southern side of Wagener Grove, within the eastern outskirts of the Pukenui district. No driveway formation is present on-site however, it is generally envisaged a new formation will be constructed off the north-western boundary, approximately 200m to 250m west of the State Highway 1 intersection.

Topographically speaking, the property and wider surrounding land lie atop of a broad, flat, fixed sand dune crest. The site generally ranges in between heights of approximately 12m and 13m New Zealand Vertical Datum (NZVD).

No existing built development is present on-site. A minor cabin placed on above-ground skids, water tank, and two shipping containers are situated near the south-western boundary corner.

Ground cover comprises of lawn with shelterbelts planted along the western, southern, and eastern boundaries. Open drains also border the western and southern boundaries.

The FNDC on-line GIS Water Services Map indicates reticulated water, wastewater, and stormwater services are not available to the property.

The site and proposed development location is shown on the appended site plan (ref: 1339302-G600) and in Figure 1 below.

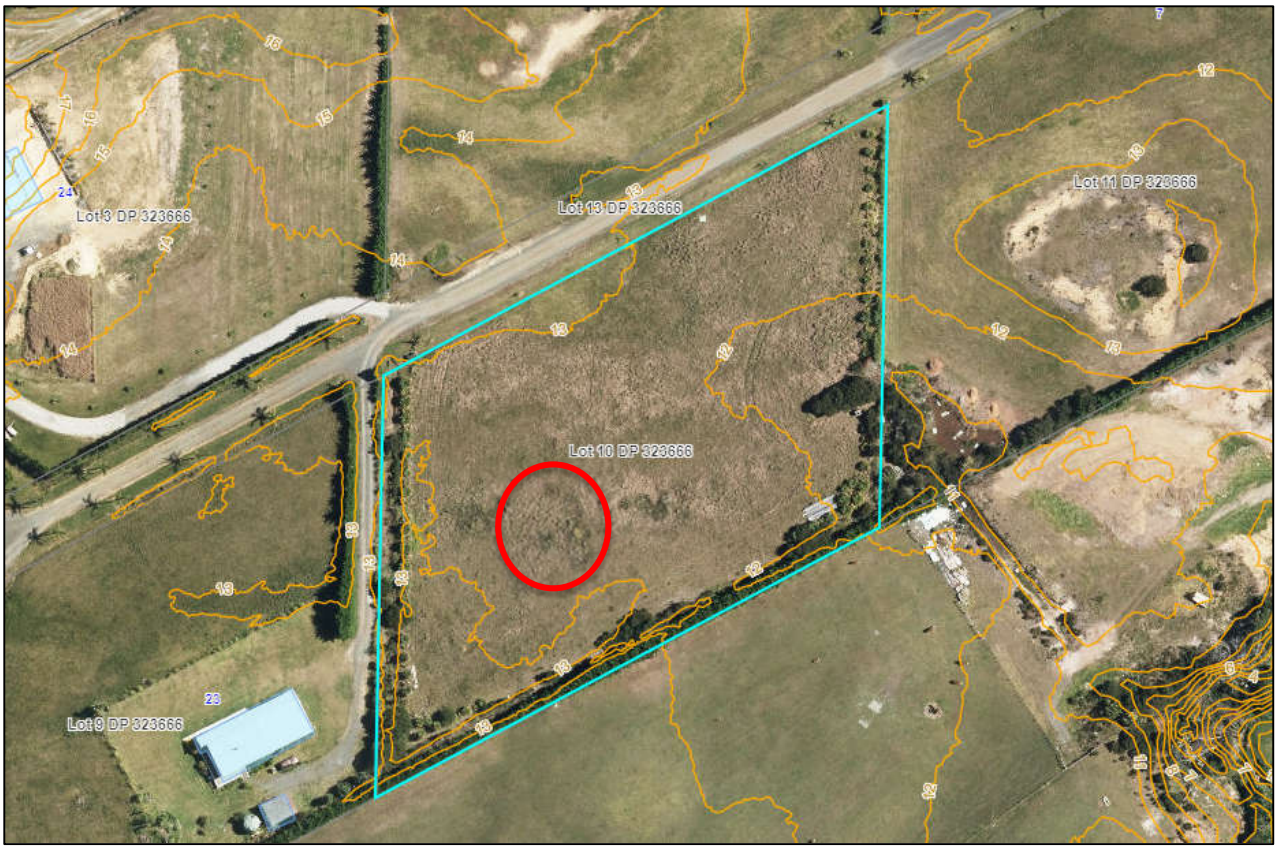


Figure 1: Screenshot aerial view of the subject site from the Far North District Council (FNDC) on-line GIS Property and Land Map. Subject property is highlighted in cyan. Red ring indicatively depicts development area. 1.0m contours are overlaid.

Figure 2: Site photograph looking south-westerly towards the proposed development location. Orange cones indicatively depict the eastern and southern ends of the building site.

4 DEVELOPMENT PROPOSALS

Based on our review of the supplied preliminary architectural drawings, the client proposes to construct a new 239m² dwelling with attached garage within the south-western quartile of the property.

It is our understanding the dwelling is to be founded on a reinforced, raft slab foundation system, supporting lightweight timber framing, vertical weatherboard cladding and a longrun steel roof.

Two footings, likely for a portal frame, will also be required to support an alfresco roof at the western end of the building site.

The proposed finished floor level (FFL) for the dwelling is currently unknown. The build site location targeted for development is located on flat ground with an envisaged crossfall of less than 0.50m present.

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

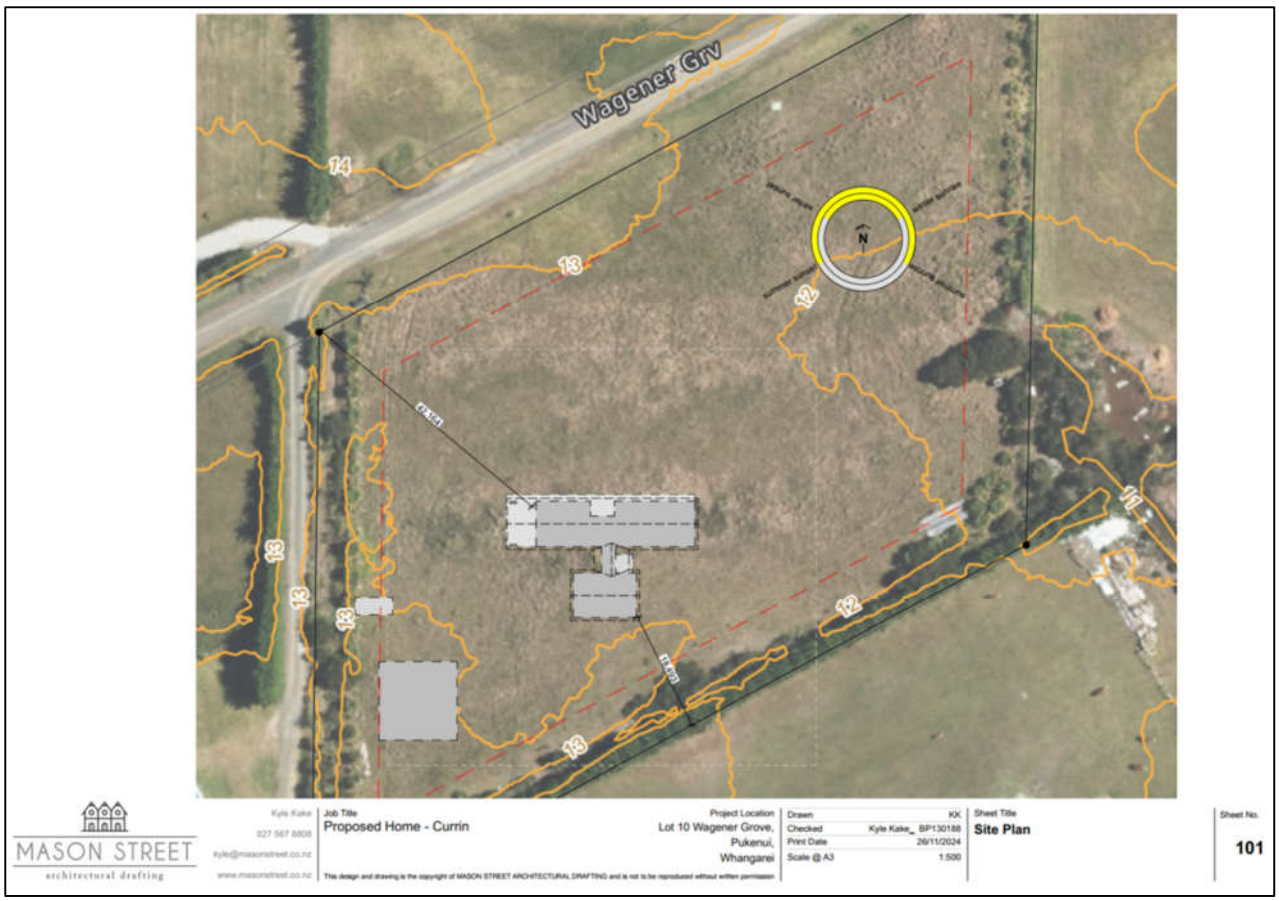


Figure 3: Screenshot of the Site Plan from the supplied architectural drawings.

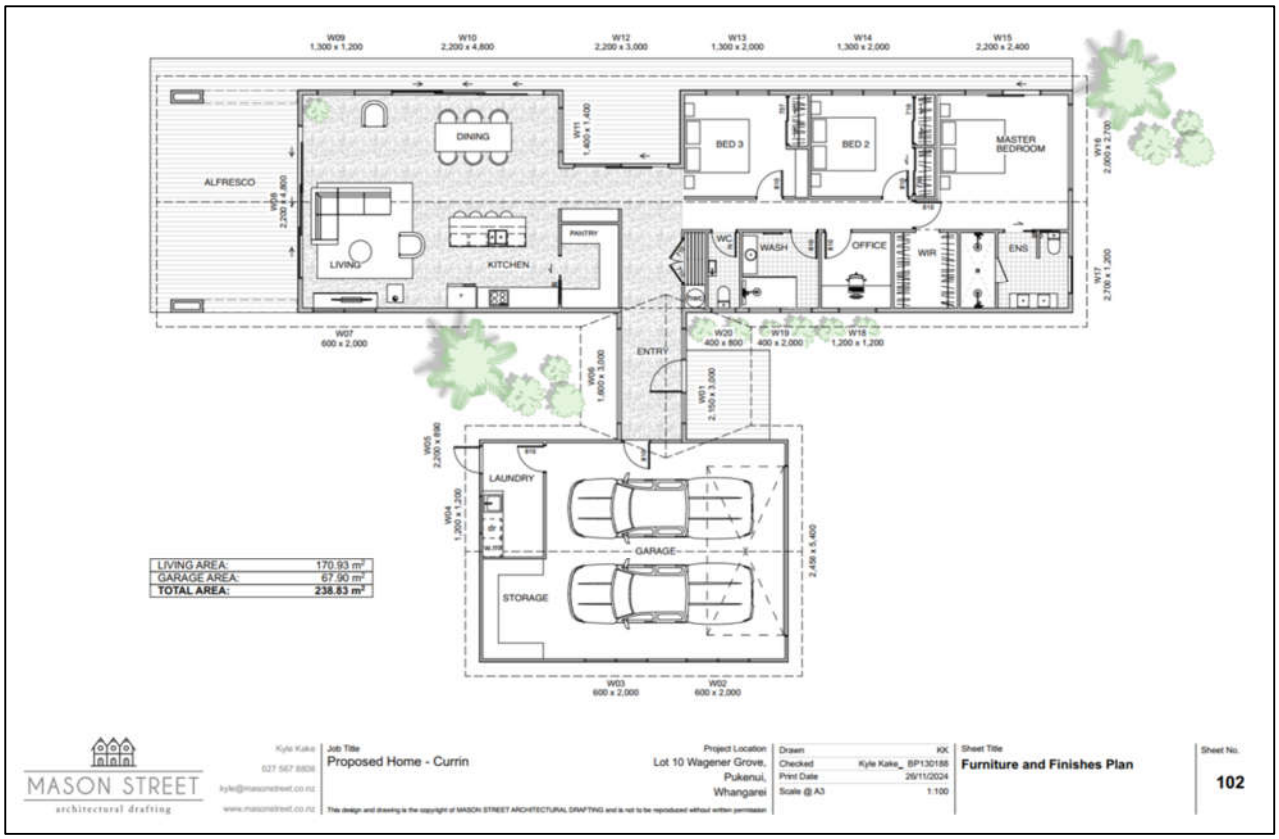


Figure 4: Screenshot of the Furniture and Finishes Plan from the supplied architectural drawings.

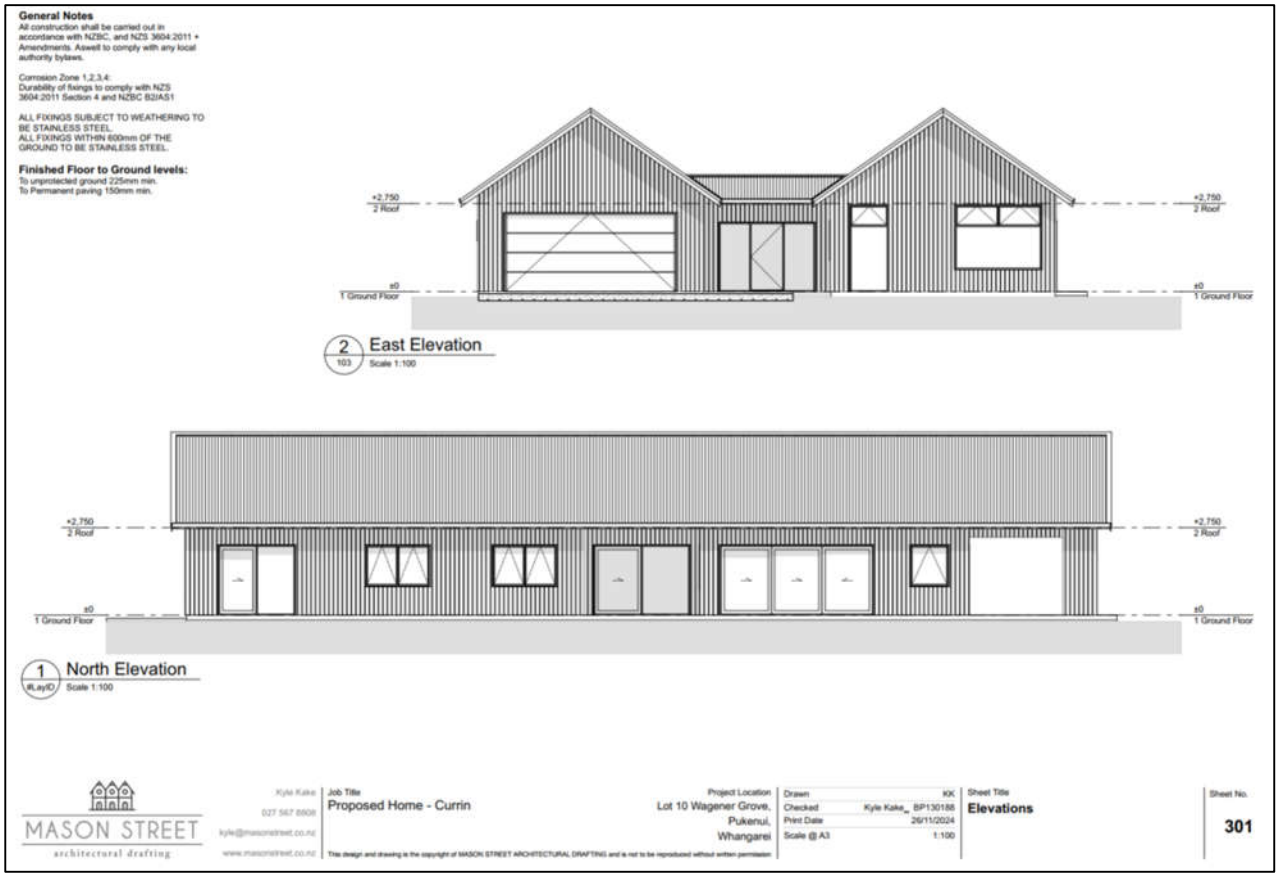


Figure 5: Screenshot of the East-North Elevation Plan from the supplied architectural drawings.

5 PUBLISHED GEOLOGY

Local geology across the property and wider surrounding land is noted on the GNS Science New Zealand Geology Web Map, Scale 1:250,000, as; **Early Pleistocene Parabolic Dunes**. These deposits are approximately 1 million years in age and described as; "*Weakly cemented and partly consolidated sand in parabolic dunes, interdune lake and swamp deposits*", which as a result of their vegetated state, and indicated by the flat nature of the site, are considered to be 'fixed' in place.

Figure 6: Screenshot aerial view of the subject property and wider surrounding land from New Zealand Geology Web Map hosted by GNS Science. Red ring depicts the property location.

6 GEOTECHNICAL INVESTIGATION

WJL carried out ground investigations at the property on 8 April 2024 and 16 January 2025.

Our subsoil testing of the land targeted for proposed development involved drilling four hand auger boreholes (HA) of 50mm diameter, to refusal depths ranging between 0.70m to 1.10m below existing ground level (BEGL). All HA's were supplemented with dynamic cone – scala penetrometer tests (DCP) to provide an indication of the bearing capacities of the underlying subsoils.

The approximate locations of the HAs are shown on our appended Site Plan (ref: 138302-G600).

The soil sample arisings from the HA's were logged in accordance with the "Field Description of Soil and Rock", NZGS, December 2005. The materials identified are described in detail on the appended records, together with the results of the various tests undertaken, plus the groundwater conditions as determined during time on site.

7 GEOTECHNICAL FINDINGS

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

7.1 NON-ENGINEERED FILL

An isolated 0.25m thick layer of surficial fill, comprising of loose, Silty SAND with frequent organic inclusions, was overlying HA03. No fill was encountered at our other three HA locations.

7.2 NATURAL GROUND

The underlying natural deposits encountered during our HA drilling were consistent with our expectations of Early Pleistocene Parabolic Dune deposits, comprising of a 0.30m to 0.90m thick veneer of loose, Organic SAND, Organic Silty SAND, and Silty SAND, overlying medium dense to dense SAND and Silty SAND. An inferred, very dense, hard pan was underlying the investigated area between depths of 0.7m and 1.10m BEGL, beyond which, it was too dense to auger.

Measured DCP blow counts per 0.10m ground penetration were measured as follows:

- Overlying Loose Veneer: Generally ranged between 1 and 2, with occasional counts of 3 and 4,
- Underlying Medium Dense to Dense Stratum: Ranged between 3 and 10, and
- Inferred Hard Pan: Ranged between 20 and 40. The pan appears to be no less than 0.30m thickness.

Figure 7: Site photograph of HA01 which were typical of the soil arisings encountered (0.0m to 0.95m).

7.3 GROUNDWATER

Groundwater was not encountered within any of our four HA's. Due to the denseness of the underlying hard pan, there is the potential for perched levels during the winter period of the year and following prolonged rainfall events.

8 GEOTECHNICAL ASSESSMENT

8.1 SITE STABILITY

Based on:

- No obvious evidence of instability within the immediate vicinity of the proposed development location, and
- Flat nature of the proposed development location and surrounding influential land,

we consider that the risk of deep-seated global slope instability impacting the proposed development to be significantly low.

In the long-term, provided that all of the recommendations within this report, are adhered to, then we do not anticipate any significant risk of instability either within, or immediately beyond, the proposed building site.

8.2 LIQUEFACTION HAZARD ASSESSMENT

Liquefaction is a natural phenomenon where a loss of strength of sand-like soils is experienced following cyclic induced stress, which is typically a result of prolonged seismic shaking and the resultant increase in pore water pressure of saturated soils. Recent examples of this were experienced in Christchurch and the greater Canterbury Region during the Canterbury Earthquake Sequence between 2010-2011.

Cyclic loading during prolonged seismic shaking induces an increase in pore water pressure, which in turn decreases the effective stress of a sand-like deposit of soil. Excess pore water pressure (EPWP) can build to such an extent that the effective stress of the underlying soils is reduced to near zero, whereby the soils no longer carry shear strength and behave as a semi solid/fluid. In such a scenario, excess pore water pressures will follow the path of least resistance to eventual dissipation, which can lead to the manifestation of liquefied soils towards the surface, or laterally towards a free-face (edge of slope, riverbank, etc.) or layers that have not yet undergone liquefaction.

At the time of preparing this report, we note that the FNDC on-line GIS Liquefaction Vulnerability Map designates the property and wider surrounding land as being within an “Undetermined” zone.

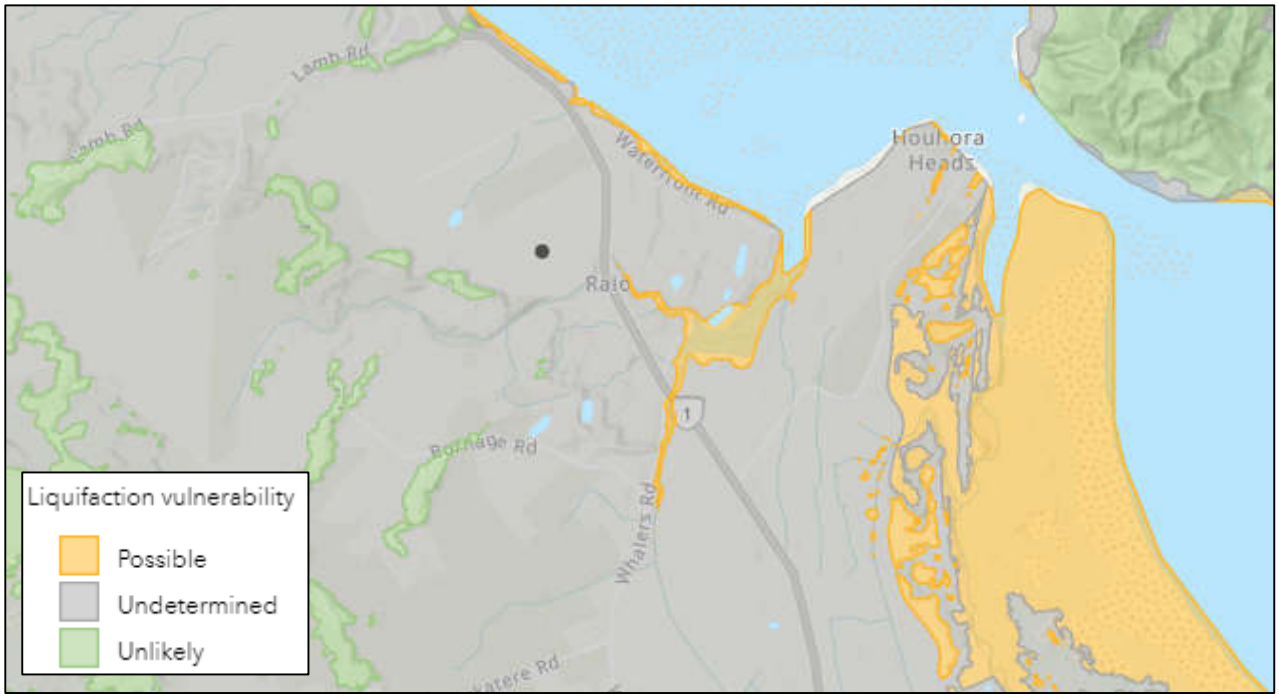


Figure 8: Screenshot from the FNDC on-line GIS Liquefaction Vulnerability Map.
Black dot approximately depicts property location.

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

- There are no known active faults traversing through the property or wider surrounding land,
- There is no historical evidence of liquefaction at the property,
- The site is situated on an elevated location,
- The site is underlain by a very dense hard pan of minimum 0.30m thickness, at depths ranging from 0.70m to 1.10m BEGL, which is generally considered not to be susceptible to liquefaction. All overlying unsuitable, loose soil is also to be removed and replaced with engineered fill,
- Lack of groundwater evidence within our four HA's, and
- The subsoils deposits are a minimum of 1 million years in age, allowing for adequate consolidation in comparison to Holocene age material.

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

9 CONCLUSIONS AND RECOMMENDATIONS

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

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

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

ii. The land beneath the building footprint and surrounding immediate amenity areas of the relayed building platform 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.

9.1 FOUNDATIONS

It is our understanding the dwelling is to be founded on a reinforced, raft slab foundation system.

The surficial veneer of loose organic soils contains unsuitable bearing capacities to support foundations. Additionally, pile driving and footing excavations into the hard pan may prove problematic for achieving adequate cantilever anchorage due to the denseness of the pan.

Based on the above, we recommend that all unsuitable, loose surficial soils be removed from the building platform and replaced with engineered fill, compacted and tested in layers to satisfy NZS4431:2022 criteria for Engineered Fill. Such fill material can be either compacted clean cohesive clay fill, or clean, non-cohesive hardfill. The use of clay fill brings with it the need for higher levels of moisture content control, compaction monitoring, testing and certification, and may also add in additional expansive soils mitigation design requirements for the foundation system, whereas non-cohesive hardfill can be placed and compacted with much less overview of water content control and little to no expansive soils mitigation requirements. This ground improvement should extend a minimum of 1.0 outside the building platform in all directions.

Our DCP's indicate that the loose, surficial layer is generally of 0.30m to 0.60m thickness however, may be up to approximately 0.90m across the eastern extents of the building site.

Two isolated footings, likely for a portal frame, will also be required to support an alfresco roof at the western end of the building site.

9.1.1 SHALLOW FOUNDATION BEARING CAPACITY

Following the above ground improvement, the following bearing capacity values are expected to be appropriate for the use of shallow foundations, subject to founding directly on or within competent engineered fill, but which should be confirmed by careful Geo-professional inspections of the firstly the stripped subgrade followed by compaction monitoring of the engineered fill.

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 up from 0.50m below the invert of service trenches unless such foundation details are found by specific engineering design (SED) to be satisfactory. Deeper foundation embedment's may be required for any surcharging foundations.

9.1.2 EXPANSIVE SOIL CLASSIFICATION

All existing sandy subsoils and required engineered hardfill (or clean, inorganic sand fill) are assessed as **CLASS A (Non-Expansive)**, as defined in clause 7.5.13.1.2, as introduced to NZS3604 by Amendment 19 of NZBC Structure B1/AS1. If sand fill is to be used, then consideration and skill may need to be given to providing adequate confinement and compaction to the surface layers of the sand. Clay fill is not recommended for the ground improvement works as this will change the expansivity aspect of the founding ground, and require specific engineering design that cannot be commenced until after the clay fill has been placed, compacted and sampled insitu for laboratory testing.

All footings for the alfresco roof should be embedded a minimum of 0.40m below finished ground levels and 0.40m into competent natural ground and/or engineered fill.

9.2 NZS1170.5:2004 SITE SUBSOIL CLASSIFICATION

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

9.3 SITE EARTHWORKS

The proposed FFL for the dwelling is currently unknown. Earthworks in forming the building platform will require an earthworks operation, consisting of the removal of unsuitable, loose surficial organic subsoils and replacement with engineered fill. Of the options discussed above, we advise that imported clean hardfill offers the easiest and most trouble-free outcome.

Our DCP's indicate that the loose, surficial layer is generally of 0.30m to 0.60m thick however, may be up to approximately 0.90m across the eastern extents of the building site.

All earthworks should be undertaken in accordance with the following standards:

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

9.3.1 SITE CLEARANCE & PREPARATION

Competency of the exposed subgrade underlying the building platform should be confirmed by a Geo-Professional. In this regard, we recommend the stripping of all surficial subsoils overlying the hard pan at the building site, prior to requesting Geo-Professional inspection(s) of the stripped ground to confirm that the underlying natural subgrade conditions are in keeping with the expectations of this report. Without such inspections being undertaken, a Chartered Professional Geotechnical Engineer is unable to issue a Producer Statement - PS4 – Construction Review likely to be needed to meet Building Consent requirements as set by Council as conditions of consent.

9.3.2 SUBGRADE PROTECTION

Once stripped, the subgrade should not be left exposed for any prolonged period but should be covered with a minimum 0.10m thick layer of granular fill such as GAP40 basecourse, as soon after the geotechnical inspection as possible.

Likewise, pile/pier inverts should be covered with a protective layer of site concrete and/or their concrete poured as soon as possible once inspected by a Geo-Professional.

If subgrade degradation occurs it will be necessary to undercut the degraded material and replace with compacted hardfill.

9.3.3 ENGINEERED HARDFILL AND SAND FILL COMPACTION

The compaction of hardfill should be undertaken using either a heavy plate compactor or a steel wheeled roller with low frequency dynamic compaction. Fill layers should not exceed 0.15m at a time, and as the total depth exceeds 0.60m, there will be a Building Consent condition for observation/testing of the hardfill by a Geo-Professional. We recommend achieving the following compacted target values, with equivalence testing using either a Clegg Impact Hammer or a DCP.

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

9.3.4 TEMPORARY & LONG-TERM EARTHWORK BATTERS

We recommend that earthworks only be undertaken during the summer period of the year or prolonged dry forecast weather conditions. Should any proposed cuts result in unsupported batters exceeding 1.0m in height, further specific geotechnical advice should be sought.

Earthwork sites should be shaped to assist in stormwater run-off. The toe of batter excavations should be shaped to direct run-off from the building site.

All exposed batters should be covered with topsoil before being re-grassed and/or planted as soon as practicable to aid in stabilising any newly formed slopes.

9.3.5 GENERAL SITE WORKS

We stress that any and all works should be undertaken in a careful and safe manner so that Health & Safety is not compromised, and that suitable Erosion & Sediment control measures should be put in place. Any stockpiles placed should be done so in an appropriate manner so that land stability and/or adjacent structures are not compromised.

Furthermore:

- All works must be undertaken in accordance with the Health and Safety at Work Act 2015,
- Generally, 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.

9.4 STORMWATER & SURFACE WATER CONTROL

Uncontrolled stormwater flows must not be allowed to saturate the ground, so as to adversely affect foundation conditions.

All stormwater runoff from roofs and paved areas should be collected in sealed pipes and discharged to a stable disposal point that is well clear of the building site.

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

10 UNDERGROUND SERVICES

FNDC on-line GIS Maps do not indicate any underground services to be present within the property, however, other underground services, public or private, mapped, or unmapped, of any type could be present, hence we recommend staying on the side of caution during the commencement of any work within the proposed development area.

This geotechnical report includes no evaluations or advice pertaining to on-site effluent disposal, other than reference can be made to the Auckland Council TP58.

11 FUTURE CONSTRUCTION MONITORING

The foregoing statements are Professional Opinion, based on a limited collection of information, some of which is factual, and some of which is inferred. Because soils are not a homogeneous, manufactured building component, there always exists a level of risk that inferences about soil conditions across the greater site, which have been drawn from isolated “pin-prick” locations, may be subject to localized variations. Generally, any investigation is deemed less complete until the applicability of its inferences and the Professional Opinions arising out of those are checked and confirmed during the construction phase, to an appropriate level.

It is increasingly common for the Building Consent Authorities (BCA) to require a Producer Statement – Construction Review (PS4) which is an important document. The purpose of the PS4 is to confirm the Engineers’ Professional Opinion to the BCA that specific elements of construction, such as the verification of design assumptions and soil parameters (NZBC clause B1/VM4 2.0.8), are in accordance with the approved Building Consent (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:

- Site cut, and
- Fill compaction testing,

12 LIMITATIONS

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

This report has been commissioned solely for the benefit of our client, Jake Currin, 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.

It is important to note that additional refinement of the assessment may be required, based on the requirements of regional councils.

The report does not cover the necessary information regarding the required floor level in relation to any flood level that must be considered during foundation design. Expert input is needed to address this aspect.

Although this report may be submitted to a local authority in connection with an application for a consent, permission, approval, or pursuant to any other requirement of law, this disclaimer shall still apply and require all other parties to use due diligence where necessary and does not remove the necessity for the normal inspection of site conditions and the design of foundations as would be made under all normal circumstances.

Thank you for the opportunity to provide our service on this project, and if we can be of further assistance, please do not hesitate to contact us.

Yours faithfully,
WILTON JOUBERT LIMITED

Enclosures:
Site Plan (1 sheet)
Hand Auger Borehole Records (4 sheets)
Construction Monitoring (1 sheet)

Lot 10 DP 323666

Allow 4m clearance in height and width for fire appliance access

12.00

92.09m, 217° 42' 21"

#23

42.164

Drainage: to ASNZS 3500.2
100Ø FW fall @ 1:60 max
Min cover 500mm

HA 02

PROPOSED DWELLING

HA 03

HA 01

HA 04

18.493

124.92m, 278° 19' 50"

92.03m, 217° 6' 5"

Lot 09 DP 323666

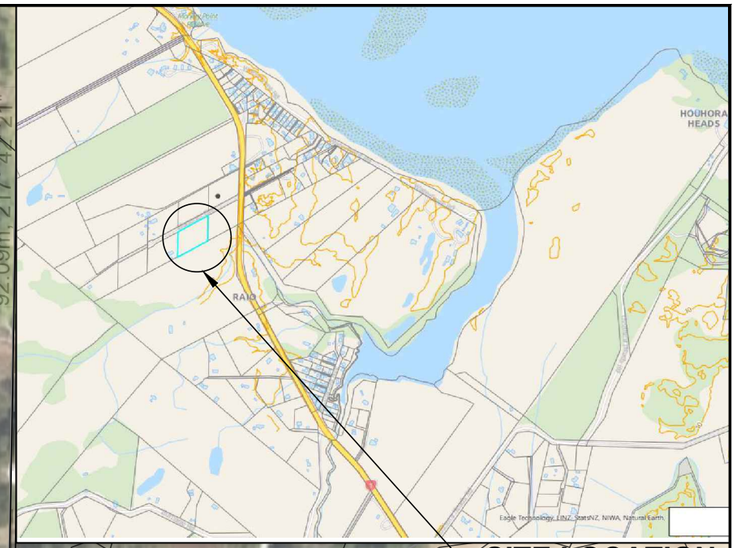
Water Tanks

27.9m

42.1m

0m 5m 25m 50m

SCALE 1:500



SITE LOCATION

IMAGE SOURCE:
FAR NORTH DISTRICT COUNCIL LOCALMAPS

Part Sec 3 Block XV
Houhora East SD

SYMBOL KEY	
HA	HAND AUGER LOCATIONS
	PROPOSED DEVELOPMENT LOCATION

GENERAL NOTES

1. SITE PLAN IS ONLY INDICATIVE FOR CONCEPT DESIGN. NO MEASUREMENTS MAY BE TAKEN FROM DRAWING.
2. BACKGROUND INFORMATION, CONTOURS & LOCAL SERVICES PROVIDED BY THE CLIENT & EXTRACTED FROM LOCAL COUNCIL GIS.
3. ALL DIMENSION AND LEVELS TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE RELEVANT STANDARDS AND MUST BE UNDERTAKEN IN ACCORDANCE WITH THE HEALTH AND SAFETY AT WORK ACT 2015.

WILTON JOUBERT
Consulting Engineers
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Auckland: 09 527 0196
Christchurch: 021 824 063
Wanaka: 03 443 6209
www.wiltonjoubert.co.nz

ISSUE / REVISION

No.	DATE	BY	DESCRIPTION
A	JAN 2025	JWB	ISSUED WITH GEOTECHNICAL REPORT

DESIGNED BY:
DRAWN BY: JWB
CHECKED BY: SJW
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.

BUILDING CONSENT
DESIGN / DRAWING SUBJECT TO ENGINEER'S APPROVAL

DRAWING TITLE: **SITE PLAN**

PROJECT DESCRIPTION: **PROPOSED DWELLING**

PROJECT TITLE:
LOT 10 DP 323666
10 WAGENER GROVE
PUKENUI
NORTHLAND

ORIGINAL DRAWING SIZE:	OFFICE:
A3	KERIKERI
DRAWING SCALE:	CO-ORDINATE SYSTEM:
1:500	NOT COORDINATED
DRAWING NUMBER:	ISSUE:
138302-G600	A

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HAND AUGER : HA01

JOB NO.: 138302 **SHEET:** 1 OF 1

START DATE: 08/04/2024 **NORTHING:** **GRID:**

CLIENT: Jake Currin **DIAMETER:** 50mm **EASTING:**

PROJECT: New Dwelling **SV DIAL:** **ELEVATION:** Ground

SITE LOCATION: Lot 10 DP 323666, Wagener Grove, Pukenui **FACTOR:** **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Karioitahi Group	NATURAL: Organic Fine SAND, brown and dark brown, loose, moist		0.2	Groundwater Not Encountered				2	
								2	
								3	
	Slightly Organic Silty Fine SAND, dark brownish black, loose, moist		0.4					2	
								3	
			0.6					2	
								4	
			0.8					10	
	Fine SAND, grey with white specks, dense, dry to moist							20	
	0.9m: Becoming very dense							40	
	EOH: 0.95m - Too Dense To Auger		1.0						
			1.2						
			1.4						
			1.6						
			1.8						

SOIL DESCRIPTION

TOPSOIL CLAY SAND PEAT

FILL SILT GRAVEL ROCK

REMARKS

End of borehole @ 0.95m (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: NPN

CHECKED BY: SJW

▼ Standing groundwater level

▽ GW while drilling

WILTON JOUBERT Consulting Engineers

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HAND AUGER : HA02

JOB NO.: 138302 **SHEET:** 1 OF 1

START DATE: 08/04/2024 **NORTHING:** **GRID:**

CLIENT: Jake Currin **DIAMETER:** 50mm **EASTING:**

PROJECT: New Dwelling **SV DIAL:** **ELEVATION:** Ground

SITE LOCATION: Lot 10 DP 323666, Wagener Grove, Pukenui **FACTOR:** **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Karioitahi Group	NATURAL: Slightly Organic Fine SAND, light brown with occasional orange specks, loose, dry		0.0	Groundwater Not Encountered				3	
								2	
			0.2					2	
								3	
	0.4m: Becoming dark brown & grey, medium dense		0.4					4	
								4	
			0.6					8	
	0.7m: Becoming dense							10	
			0.8					20	
	0.9m: Becoming very dense							21	
			1.0					40	
	EOH: 1.00m - Too Dense To Auger								
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 1.00m (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: NPN

CHECKED BY: SJW

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA03

JOB NO.: 138302 **SHEET:** 1 OF 1

START DATE: 16/01/2025 **NORTHING:** **GRID:**

CLIENT: Jake Currin **DIAMETER:** 50mm **EASTING:**

PROJECT: New Dwelling **SV DIAL:** **ELEVATION:** Ground

SITE LOCATION: Lot 10 DP 323666, Wagener Grove, Pukenui **FACTOR:** **DATUM:**

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
FILL	NON-ENGINEERED FILL: Slightly Silty Fine to Medium SAND, dark brown, grey and orange, loose, dry to moist, frequent organic inclusions		0.2	Groundwater Not Encountered				3	
								2	
								2	
Karioitahi Group	NATURAL: Organic Fine SAND, brown and dark brown, loose, dry to moist		0.4					1	
								4	
	Slightly Silty Fine to Medium SAND, dark brown, grey and orange, loose, dry to moist.		0.6					2	
								2	
			0.8					2	
								2	
	1.0m: Becoming medium dense		1.0					6	
								25	
	EOH: 1.10m - Too Dense To Auger		1.2						
			1.4						
			1.6						
			1.8						

REMARKS

End of borehole @ 1.10m (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: SJW

▼ Standing groundwater level

▽ GW while drilling

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HAND AUGER : HA04

CLIENT: Jake Currin
PROJECT: New Dwelling
SITE LOCATION: Lot 10 DP 323666, Wagener Grove, Pukenui

JOB NO.: 138302 **SHEET:** 1 OF 1
START DATE: 16/01/2025 **NORTHING:** **GRID:**
DIAMETER: 50mm **EASTING:**
SV DIAL: **ELEVATION:** Ground
FACTOR: **DATUM:**

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

STRATIGRAPHY	SOIL DESCRIPTION	LEGEND	DEPTH (m)	WATER	SHEAR VANE: PEAK STRENGTH (kPa)	SHEAR VANE: REMOULD STRENGTH (kPa)	SHEAR VANE: SENSITIVITY	DCP - SCALA (Blows / 100mm)	COMMENTS, SAMPLES, OTHER TESTS
Karioitahi Group	NATURAL: Slightly Silty Organic Fine to Medium SAND, dark brown & black, loose to medium dense, dry to moist.		0.2	Groundwater Not Encountered				3	
								3	
								2	
	Slightly Silty Fine to Medium SAND, dark brown & brown, loose, dry to moist.		0.4					2	
	0.5m: Becoming medium dense							4	
			0.6					5	
								25	
	EOH: 0.70m - Too Dense To Auger		0.8						
			1.0						
			1.2						
			1.4						
			1.6						
			1.8						

REMARKS
End of borehole @ 0.70m (Target Depth: 3.00m)

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

LOGGED BY: JEM
CHECKED BY: SJW

▼ Standing groundwater level
▽ GW while drilling

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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

3 Jake Currin 25

Rational method

48hr

Pre – Development water flow

(Original water flow)

Total area. Area (m^2)	Roof & decks 1 (m^2)	Concrete & smooth seal 2 (m^2)	Metaled area Or rough seal 3 (m^2)	Other Impervious 4 (m^2)	Vegetation 5 (m^2)	Bush 6 (m^2)
574.40	0	0	0	0	574.4	0
Runoff coefficent	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)
Use "C" values from FNDC TR55 chart	FALSE	FALSE	FALSE	FALSE	0.59	FALSE
Generally do not use slope adjustment Ci factor if using TR55	0.96	0.96	0.3	0.65	0.59	0.59
Rainfall intensity	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)
Rainfall Data from NIWA. Hirds 4, RCP6, 2081-2100	1.58	2.99	2.99	2.99	2.99	2.99
Use an appropiate event for the situation						
Flow rate of surface water	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)
	0.000	0.000	0.000	0.000	0.000	0.000

Pre – development flow of developed area	Qp (m^3/sec)	Qp (L/sec)
	0.0003	0.28

Pre-development Slope %	
	10
Ci correcdtion	
	0.00

Post-development Slope %	
	10
Ci correcdtion	
	0.00

Post – Development water flow

Any area where there is a change in the impermiablity values

Total area. Area (m^2)	Roof & decks 1 (m^2)	Concrete & smooth seal 2 (m^2)	Metaled area Or rough seal 3 (m^2)	Vegetation 4 (m^2)
574.40	234.51		339.89	0
OK				
Use "C" values from FNDC TR55 chart	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)	Ci (coefficient)
Generally do not use slope adjustment Ci factor if using TR55	0.96	FALSE	0.90	FALSE
	0.96	0.96	0.9	0.59
Rainfall intensity rate	I (mm/hr)	I (mm/hr)	I (mm/hr)	I (mm/hr)
Rainfall Data from NIWA. Hirds 4, RCP6, 2081-2100	3.33	3.33	3.33	3.33
Use an appropiate event for the situation				
Flow rate of surface water	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)	Qc (m^3/sec)
	0.000	0.000	0.000	0.000
	Qc (L/sec)	Qc (L/sec)	Qc (L/sec)	Qc (L/sec)
	0.21	0.00	0.28	0.00

Pre-development area where there is a change in impermeable surfaces but not collected in atenuation system

Concrete & smooth seal 5 (m^2)	Metaled area or vegetation 6 (m^2)
0	0
Ci (coefficient)	Ci (coefficient)
0.2	0.3
"C" value difference between Pre & Post	
Maximum value 0.2 (at the moment)	
I (mm/hr)	I (mm/hr)
2.99	2.99
Qc (m^3/sec)	Qc (m^3/sec)
0.000	0.000
Qc (L/sec)	Qc (L/sec)
0.00	0.00

Any area where there is no change to the impermiablity values

Metaled area or seal 7 (m^2)	Vegetation 8 (m^2)
0	0
Ci (coefficient)	Ci (coefficient)
FALSE	FALSE
0.59	0.59
I (mm/hr)	I (mm/hr)
2.99	2.99
Qc (m^3/sec)	Qc (m^3/sec)
0.000	0.000
Qc (L/sec)	Qc (L/sec)
0.00	0.00

Total included in attenuation system calc's post – development flow	Qa (m^3/sec)	Qa (L/sec)
	0.000	0.21

Total impermeable excluded from attenuation system collection	Qby (m^3/sec)	Qby (L/sec)
	0.000	0.00

Total no change, excluded from attenuation system calc's	Qby (m^3/sec)	Qby (L/sec)
	0.000	0.00

Post – Pre development flow	Qtpp (m^3/sec)	Qtpp (L/sec)
	0.0002	0.21

Total post development flow Developed flow + undeveloped flow 0 to 10min	Qatt (m^3/sec)	Qatt (L/sec)
	0.0005	0.49

2

						Calculation (initial)	**Calculation (final)**	Num. Of tanks	**Slope out control (**
				Calculation (initial)	Calculation (initial)	usable height	**Additional area**	1	1930min (row4235)
	Round	Square		Total tank area	Total tank volume	hmax (m)	m^2	r (m)	0.01036
Select 1 for type of tank/area, 0 for other	0	1		m^2	m^3	1.6	Nil	1.9	0.01066
Estimate storage volume			Tank radius	6.00	9.60	Raise	**Total area**	m^2 for fixed H68 height	0.02937
Adjust to match max Vstored	Num. Of tanks		r (m)		**Initial calculation**	OK	Same as initial	11.34	
Round area	0		1.8	0.00	**hstor max.**	2.406	**Final volume**	Not used	
	Num. Of tanks	Width	Length	m^2	**Vstored max.**	14.44	Same as initial	Trench width	**80 minute crossove**
Square/rectangular area	1	2	3	6.00	**Vstored min.**	0.041		4	1500
					0.05 to3.5% left @ 48hr	0.29		Trench length	0.00249
Short tube, 0.76	Orifice type "u"	g				OK	Same as initial	6.1	0.00248
Thin sharp, 0.62	0.76	9.8067			**Graph, 24hr Vstored 2520m**	0.102	Not used	m^2 for fixed H68 height	-0.00002
					Max.10% left @ 24hr from initial calc.	0.71	0.71	24.40	
					or add extra volume			Not used	

	48hr	24hr	12hr	6hr	2hr	60	30	20	10
Pre – development flow	C20	L20	U20	AD20	AM20	AV20	BE20	BN20	BW20
3 of developed area	0.00028	0.00048	0.00078	0.00125	0.00249	0.00371	0.00538	0.00659	0.00913

							Slope factor adjustment at		
Pre–development flow matches 2hr 40min. Intensity	Qp (m^3/sec)	Qp (L/sec)		**Qin max.**					
Uses (80min.crossover O126) as a source value	0.0021	2.0659		0.00827					
Do not change	OK					48hr program	Min.crossover		
For calculation purposes this section changes	Dia check	Dia	Area	**Qout 1520 (L/sec)**	Qout (m^3/sec)	Min.crossover	Chart point (min.)	1080min (K2305)	2520min (K5185)
the dia only and thereby the area	0.0249	0.02486	0.0005	2.347	0.00235	1520	0.91	Qod (L/sec)	Qod (L/sec)
The information is not used for anything else		24.86		0		1520	peak flow	0.47607	0.21297
							Chart point (max.)	0.26310	Diff. >0 normally
							0.15		

If additional storage is required use the original/inital orifice size and calc. height

4

Calculate maximum storage volume

						For period 2081-2100			
Chart intensity	Chart intensity	Storm duration-	Storm duration-	Attenuation calc. tota	Catchment pre-devel.	**Houhora CC**	**Houhora**	Chart step factor	Check
hr values	accumulated	THR	Event data, TMINS	Direct to Atten.	plus orifice flow out	**Post-dev RCP6**	**Pre-dev (0 deg)**		Adjust step factor if
steps used	minute steps	(hr)	mins	Qa (L/sec)	Qtin (L/sec)	10 yr	10 yr		required
48	720	12.00	720	0.21	0.41	3.33	2.99	1.4	
24	1080	6.00	360	0.4	0.8	5.72	5.05	1	OK
12	1260	3.00	180	0.6	1.3	9.6	8.31	0.55	Lower Factor
6	1380	2.00	120	1.0	1.9	15.6	13.3	0.55	OK
2	1410	0.50	30	2.2	3.6	31.9	26.5	0.9	OK
1	1425	0.25	15	3.3	5.1	47.8	39.4	0.8	OK
30	1430	0.08	5	4.8	7.0	69.3	57.1	0.04	OK
20	1435	0.08	5	5.9	8.3	84.9	70	1.0	OK
10	1440	0.08	5	8.3	11.0	118	97	1.0	OK
10	1445	0.08	5	8.3	11.0	118	97	1.5	OK
20	1450	0.08	5	5.9	9.0	84.9	70	1.0	OK
30	1455	0.08	5	4.8	7.8	69.3	57.1	0.9	OK
	1470	0.25	15	3.3	6.2	47.8	39.4	0.8	OK
2	1500	0.50	30	2.2	5.0	31.9	26.5	1.1	OK
6	1620	2.00	120	1.0	2.9	15.6	13.3	1	OK
12	1800	3.00	180	0.6	1.5	9.6	8.31	1	OK
24	2160	6.00	360	0.4	0.8	5.72	5.05	0.8	OK
48	2880	12.00	720	0.2	0.4	3.33	2.99	0.73	

				Qout max.	**Qout max.**	**Vstored max.**
Catchment flow Qpat (cell MAX(P109:P130)	**Qcap max.**	Qp (m^3/sec)	Qp (L/sec)	(m^3/sec)	(L/sec)	Vol. stored, (m^3)
Catchment flow = orifice flow out + catchment pre-development flow	4.550	0.0046	4.6	0.00558	5.58	14.442
						OK
For calculation purposes this section changes	Dia check	Dia	Area			OK
the dia only and thereby the area	0.0369	0.03689	0.0011			

Effluential DrainLayers Ltd
3778 Main North Road
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Kaitaia 0484

Phone 09 409 8854 Fax 09 409 7720 Mobile 0274 8855 84

20//03/2025
Jake Currin & Ella Harris
Lot 10 Wagener Grove
Pukenui

Report on Storm Water Attenuation

Purpose
To control/assist the management of the effects of stormwater runoff from building developments and mitigate the impact this has on infrastructural assets.

Considerations
It needs to be accepted that the impact is greater in densely populated areas and less in urban/rural.
The definition of soakage is the process where a permeable substance receives a liquid, in this case where storm water is disposed of into ground, or effective runoff slowed so as to minimize effects on the environment or infrastructure.
The infiltration factor ksat assessment, assists in mitigating runoff impact.
Characteristics that determine permeability are soil structure, soil particle size, and geomorphology.
The flow rate of the soakage discharge is also dependent upon the soakage area and the hydraulic pressure forcing water into the absorbent media.

Site Description
The property is located off Wagener Grove. Pukenui Area being 10151m2

This is a large section predominantly covered in grass with a few trees. The property is relatively flat, having an elevated part to the west and gently slopes to the southeast.
There is an open drain along the entire length of the south-eastern boundary line. This drain ultimately reaches the Raio Creek.

Natural surface water would be directed away from a new building via the contours of the land.

The soil type is listed as Te Kopuru sand over sand stone. Soil maps class this as poorly drained.

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3778 Main North Road
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Kaitaia 0484

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Design Criteria
Soakage devices must be 3m from dwellings.

The Far North District Council aligns storm water attenuation requirements with other authorities.
The Whangarei District Council requires site attenuation when the percentage of impermeable surfaces exceeds 2%.
The Auckland Regional Council prepared TP10 as a reference on a similar basis and ASNZS 1547 is also structured in the same manner.
The spread sheet used in calculating Attenuation requirements has been developed in conjunction with the FNDC stormwater Engineer.

The Far North District Council information was designed specifically to enable storm water design to be expedited quickly. The ARC prepared TP10 on the same basis. ASNZS1547 is also structured in the same manner.

Therefore, attenuation is only required when the ratio of impermeable surfaces to total property area exceeds 2%. However other factors can influence the requirement to attenuate.

Design Calculations
All calculations submitted are via Stormwater calculation spread sheet. It is a given that new calculations may be required should future development take place.

Run off from impervious surfaces on a total land area of 101510m^2 is of marginal concern. The estimated additional impermeable surfaces have been calculated as: residential 234.51m^2, driveway 339.89m^2, Tanks 19m2 This is a combined total of 593m^2 out of an overall 10151m^2.

The ratio of impermeable surfaces to overall area is 5.8%.

In line with the design criteria above, the property, with a ratio of 5.8%, should require attenuation. However, given that there is a large open drain along the south-eastern boundary that within 400m drains to the Raio Creek it is unlikely that the proposed development will have a negative effect on council infrastructure.

Design Proposal
Any development has some adverse effects however in relation to the major area the effects are small, with stormwater having no immediate effect on any regional infrastructure.

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Kaitaia 0484

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The principle being used in this case is that stormwater generated by the building roof area is discharged via 100mm uPVC stormwater pipe and spreader to the surrounding environment. The cumulative effects from this sized development will be minor, in relation to the whole.

Devices which discharge water via infiltration through soil provide a storm water quality benefit to the receiving environment and the in-situ soil acts as a filter media for removing contaminants. This is a known beneficial factor and provides for infiltration devices to be used as storm water quality treatment.

On site observation indicates that there is not, and is unlikely to be, any erosion from this source.

It is most unlikely given the percentage of impervious surfaces that there will be any environmental effect which cannot be contained within the boundaries with this proposed development.

This combination of circumstance lessens the impact on the downstream environment while providing for the maximum soil absorption as proposed by TP10, again lessening the potential impact on infrastructure.

Regional Plan:
The Northland Regional Council proposed rule C6.4.2 provides for the diversion and discharge of stormwater from outside a public stormwater network, provided that (amongst other conditions) the discharge or diversion does not cause or increase nuisance or damage to other property. In this case there will be no affected neighbouring properties.

Therefore, this proposal is in accordance with NRC Rule C6.4.2.

Conclusion:
Any stormwater overflow from this proposed building will be discharged via a spreader bar to the surrounding environment at the south-east of the building site. There will be no cumulative effect on FNDC infrastructure.

Eric Wagener Certifying Registered Drainlayer 05877
Robert Wagener (Engineer) Effluential Drainlayers Associate